

COMPUTERIZED VITAL REGISTRATION SYSTEM IN NIGERIA  
(A CASE STUDY OF NATIONAL POPULATION COMMISSION, MINNA, NIGER STATE)

BY

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BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS/  
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(i)

CERTIFICATION:

THIS IS <sup>to</sup> CERTIFY THAT HAVING READ THROUGH THIS RESEARCH WORK CARRIED OUT BY JULIUS OLUSEGUN OLANITORI, IT IS IN OUR OPINION THAT IT CONFORMS TO THE ACCEPTABLE STANDARD AS PROJECT FOR POST GRADUATE DIPLOMA IN COMPUTER.

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EXTERNAL EXAMINER

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ABSTRACT

Vital statistics Registration system is the legal registration, statistical recording and reporting of the occurrence of and collection, compilation, analysis, presentation and distribution of statistics pertaining to vital events which in turn include the births, deaths, marriages, divorces, adoptions, legitimization, recognition, and legal separations.

The Decree 39 of 1979 tagged 'Births and deaths (compulsary registration) Decree 39 of 1979' assigned the duty of performing the above activities to 'National Population Commission (which in this study shall be referred to as commission or NPC). Since then, the registration system has not been universal as envisaged. At present, the coverage is limited to the state capitals in the country. Essentially, vital registration plays a complimentary role to census takings. It also acts as a check on census enumeration, it is also useful for population projections, Educational planning, Epidemiological Research e.t.c. However, the analysis needed for these functions of vital Registration are always carried out quarterly at the NPC headquarters such that the results of the analysis when obtained are irrelevant to the current planning purposes due to processing time lag. Also, the users at the state levels cannot have easy access to the statistics needed and at the right time. These problems and many more are the reasons behind this project.

The aim of the project is to obtain a better alternative means of efficiently storing, processing, retrieving and generating report that is accurate and timely accessible not only at the state levels but at the NPC headquarters.

The approach to be adopted is Management Information System (which will henceforth be referred to as MIS) and it involves carrying out analysis (investigation) on the current system with the aim of making improvement on it. A new system would be designed and programs that would carry out the necessary jobs (storage, processing) would be developed.

At the end of the project, a more effective, accurate, efficient, and faster vital registration system would have been developed for NPC.

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## 1.1 CHAPTER ONE = INTRODUCTION

### (./) OBJECTIVE OF STUDY

(A) The objective of this project can be summarized as follows:-

1. Provides a better means of storing records of births and deaths such that the records are easily accessed.
2. Provides a more efficient means of processing and analysing vital statistics for the use of varied interested organisation in their processes.
3. Makes available to different and varied users records stored on vital events.
4. Reduces the various expenses on forms, storage facilities, stationery and other overhead expenses.
5. Provides a more accurate, efficient and faster processings of data.
6. Provide security and access rights to information concerning vital events especially records stored at the state levels.
7. Brings the analysis of vital events closer to the needs of various users in the state compared to the method of processing such at the NPC headquarters.
8. Reduce the cost of travelling every month to submit forms at the headquarters. Also reduce the risk associated with such trip.
9. Provides the management at the state levels, the opportunity of being active participitants in the analysis of vital data and of managing such information.
10. Provides continuous job for the current staff of the commission who are involved inthe processing of census data. These staff would have been redundant at the end of the exercise and subsequently, would have been retrenched. It also eliminate the costly redundancy that the computer systems located at the zonal headquarters of NPC would have faced.

## SHORT HISTORY OF VITAL REGISTRATION

The registration of births and deaths according to "vital Registration project (experimental phases I & II)" a publication of N.P.C. dated July, 1990, has its source in the antiquities of Greece and Rome, Egypt, Japan and the Inca empire. In the modern society, registration of birth date back to 15th century, though religiously motivated. However. In Europe according to the N.P.C. publication, the registration of vital statistics dated back to 1751 to Sweden, 1800 in Norway, 1802 in Denmark, 1917 in France, 1871 in Germany and 1930 in the United States. All these countries have also attained a full computerization of their vital registration system. The publication further revealed that in sub-Saharan region of Africa, vital registration date back to 1667 in Mauritius, 1878 in Madagascar, 1889 in Congo, 1917 in Cameroon, and 1950 in Cote-d'Ivoire. In Franco-phone countries, on the average, coverage was estimated to be about 50% for births 30% for deaths and 10% for marriages, it is about 80% for birth and 50% for death in Mauritius, Madagascar while in Egypt, Cape Verde, Sao-Tomes, Seyohelles, Saint Helena, it is almost 100% coverage for birth.

Vital Registration in Nigeria according to the publication mentioned above dated back to 1863 with the promulgation of Ordinance Number 21 which made provision for the registration of births deaths and Marriages as well as for census of the then Lagos Colony, the coverage was later extended to the villages bordering the colony including Warri in 1903 and Calabar on 1904. A more comprehensive legislation throughout the country was made in 1917 and death/burial ordinance of 1948 consolidated the provision of the 1917 ordinance but was mostly ignored in the rural areas.

In the various states of Nigeria, vital Registration was carried out meticulously for various reasons and in a unique manner suitable for their respective environment. In most states, registration were routine exercises of the state Ministry of Health situated mostly at the state Local government Capitals or principal towns/cities and the main reason for this is revenue generation. Also, hospital, clinics, health centres were the major centres for the registration and the Finance departments were the major co-ordinating units. However, most of the data were not coordinated and adorn the offices in several volumes of registers. There was also hardly any collation and publication.

However, decree 39 of 1979 tagged "births and deaths {compulsory registration} decree 39 of 1979" makes the registration of births and deaths a compulsory exercise for every citizen and also protects the laws relating to the registration of births and deaths existing in the various states of the country. The power to exercise the above Decree was entrusted in N.P.C. However, the exercise could not start on 1st September 1979 as stipulated in the Decree.

According to the vital Registration Project Publication, the NPC made contact with United Nation Fund for Population Activities (UNFPA) office, Lagos in 1983 on possible assistance in carrying out the establishment of a nationwide registration and vital statistic system. A team was formed named 'Establishment of Nationwide Vital Registration and Statistics system in Nigeria, Experimental Phase'. The starting date of the project was July, 1986 but could not take off until 1988. The aim of the project was to develop an appropriate system of registration of births and deaths which can be adopted all over the country. It also aimed at testing of registration forms, manuals and other related documents. The project choose four states namely old Oyo, old Anambra,

Plateau and old Kano each state having one urban and one rural local government headquarters as the areas of coverage. The four urban LGAs chosen are: Enugu-old Anambra state, Kano municipal-Kano state, Jos Plateau state, Ilesha-Oyo state. The rural LGAs chosen are Idemih-old Anambra state Jahum-Kano state, Keffi-Plateau state, Kajola-Oyo state. Each of these areas chosen also has a number of centres. The project was latter extended to all the state capitals in 1991.

The Federal government in 1992 came up with a decree referred to as 'Births, deaths e.t.c. (compulsory Registration Number 69 of 1992') which further empowers the NPC to establish on a nationwide basis, the registration of births, deaths e.t.c. Such that selected centres are made in each local government and these centres would serve as the units of operation for the registration.

Having made a success of the experimental vital Registration and the extension to the state capitals. The NPC has decided to carry out the mandate of making the project a nation-wide one. Also, census activities are always carried out once in every ten year since the government would not be interested in retrenching the staff after every census and employing new ones at the begining of another census. The NPC considered it wise to convince the government in making vital registration a day-to-day activities of the commission so that in addition to benefit derivable from the system, staff's redundancy would be reduced if not eliminated. The success of this has led to fund being released to the commission to make the exercise a full national exercise. For the meantime, training have been held for the staff of the commission who will serve as the Registrars. Also, two centres in each of the local governments have been earmarked as the registration centres

and planning are on to commence work in April, 1994. With all these set in place, definitely, with time, vital Registration system would attain a very high percentage coverage in Nigeria and this will surely help in the development attainment of the country.

### 1.3 SCOPE AND POSSIBLE LIMITATION OF STUDY

The scope of this study will be limited to Niger State office of the National Population Commission and in essence cover only Niger state with her 19 local government area.

However, since the system is designed to be flexible especially with the use of relational forms, it means that new forms can be added, new registration centres are free to be incorporated and the system implemented in other states of the federation with ease.

Furthermore, the study would cover only births and deaths registration with exclusion of marriages, divorces and migration, which though are other key elements of a vital registration system, but since the commission has not commenced activities on these areas, they can be left out for future development. Installation and operation stage of the system of the system would not be physically carried out, this would be left out for the actual implementation of the system if employed by the commission, the steps to be taken would however, be stated.

The success of this system would strongly be dependent on the field aspect of vital registration system in Nigeria. It depends particularly on the success of the decree compelling the populace to register their births and deaths at the required stated period. It also depends on the management of the commission in providing all the necessary support funding inclusive. The staff would also need to be committed. Materials also need to be supplied at the right

, infact enough should be in stock at anytime and appropriate  
enishment made at the right time when necessary.

#### 1.4 WHY VITAL REGISTRATION SYSTEM

earlier defined, vital Registration can be taken to be a formal  
rding of the occurence of vital events which are births, deaths,  
l birth, marriages, divorces etc. The events are refered to as  
al' because they relate to all events which have to do with an  
vidual's entrance into or departure from life together with the  
ges in civil status which may occur during his/her lifetime.

There are four major sources of demographic data for the planning  
esses viz-viz census, sample surveys, administrative records and  
l registration. While census is the best source of accurate and  
rehensive data (vital statistics) for micro and macro needs of  
users, it is however very expensive to carry out yearly. Infact,  
countries conduct their census every ten years and the data/stat-  
cs thus obtained may not be too relevant for reliable planning  
oses especially the farther the years are to the census year.  
le survey on the other hand relates to collecting, compiling and  
ishing economic, demographic and social data pertaining at any time  
statistically representative sample of all persons, group of per-  
or other elements in a country or delineated part of it, however,  
is restrictive in scope and coverage hence not to good for National  
l planning purposes. Administrative records on its part comprise  
obtained from day to day activities of the government and also  
non-conventional sources such as oral, history, intelligence reports,  
ords of baptism and burials, and hence not very good too for vital  
nning requirements. The deficiencies stated above brought about the  
d for vital Registration.

Vital Registration plays a complimentary role to data obtained through the census exercise. It also checks the accuracy of census data particularly at the infancy and younger age levels. It further aids in effective planning of educational and health system. Data on births is also very useful to industries engaged in the manufacturing of baby products. The need for vital registration can also be deduced from the necessity of knowing the rate at which the population is growing or declining, the variations of the rates among regions or parts of a country.

#### 1.5 IMPORTANCE OF COMPUTER TO VITAL REGISTRATION

Re-emphasizing the importance of a computer system to an organisation may amount to a waste of time. But briefly, it provides a means of capturing data in a better and efficient form eliminating/reducing redundancies and duplications of data, stores data in more efficient and organised form eliminating the need for big file storage system like cabinets, catalogue of booklets e.t.c., processes stored or captured data at a faster speed, and more efficiently, effectively and accurately done. It also provides a better means of accessing the stored data/information and making such data available to many users. The information thus produced (processed) can be presented in a better form either in hard copy form or not.

Using the current manual system found at the state office, one can imagine a situation in which a register is filled by a Registrar for each person born or dead and imagine such number of registers for each local government or even just a state and filing up (in the form of keeping records) for many months and even many years; definitely, where to store such registers would present a great problem to the commission within a short period, not to talk of the money that would

ed to be spent in keeping the registers free of insect or rat infection. A lot of work would also need to be carried out for a well organised registers to be achieved which is a pre-requisite for easy access records stored in the registers. One then wonders what will be the economic output of such energy dispensed in organising and even processing records in the registers.

Imagine also a situation in which a person did not register his newly born baby for a particular week or month but delays it instead either ignorantly or intentionally, and assuming the tedious computation/summary has already been carried out and submitted to the state office tabulation for that particular week/month. Then assuming further that the new born baby is now to be registered. However, registering the new born baby does not mean that the child would be added to the population of the week in which he was registered, instead, it ought to be added and reflected in the tabulation of the week in which he was born. Doing this with the manual system may not be too flexible.

Furthermore, an urgent request for a vital statistics from users stationed in the states may not be too feasible despite the fact that the state originates data processed by the NPC headquarters for statistical analysis.

The above are some of the problems inherent in the current vital registration system. Briefly, a computerized system would allow the entry and validation of data and store in an organised, compact and integrated form.

Access to the data stored will also be very fast and shared by any different users provided the users have the access right to such data. Provided the system is working fine and the programs are

cient and effective, one can be sure that varried statistics/ analysis are obtained from a computer system as opposed to not only limi- statistics but also human elements normally introduced (no man is ect at all time) under normal system.

A computerized system further eliminates the need for papers other stationery that is the order of the day in the present em and thus saves alot of money needed for the purchase of these ionery.

#### 1.6 STUDY METHODOLOGY

The approach to use in developing a better and efficient uter system for the vital registration system for NPC is appli- on and use of Management Information System (MIS).

MIS is based and depended on Database Management System (hence- h called DBMS) and concerns itself with decision making and lem solving. It provides information for managerial decision ess from transaction process as well as from other sources h may be internal or external to the organisation such that the re of the decision to make has well defined procedure and as such r regularly.

MIS involves some stages. Stage one involves identifying the lem to solve, having knowledge about the organisation making the osal i.e. knowledge about goals and objectives, management rarchy, obtaining feasibility assessment such that evaluation ade for the feasibility and cost-benefit of the proposed lication with decision made as to the continuation of the project ot. This stage also involves obtaining information requirements ysis (system investigation) of the current system using interview,

record review and observation. Information collected would be documented using data flow diagram. This stage would also cover the design of conceptual model with the following features: user-oriented application description; input for application with general description of each; outputs produced by the application with general descriptions of each; general flow of processing with relationships of major programs, files, inputs, outputs, and control process e.t.c.

The next stage is the system design stage and it involves the formation of design specifications. The stage involves developing logical schema for the new envisaged system. The approach for the logical schema will be relational database which is an excellent means of describing the data structure independantly of the requirements of a particular DBMS or any computer oriented factor. The stage also includes the design of flow of work, input, output, process, control, security and backup provisions for the new system to be implemented.

Finally, changes/modifications for the various input forms and reports are made if necessary and addition/deletion of forms/reports are also made on the current system such that they conform to the requirements of the new system and the users.

The next stage is the development of the various programs to accomplish the various tasks required from the system. The programs would be tested using test data before finally accepting it for the use of NPC.

The final stage is the implementation of the new system in the NPC state office. However, this stage would only make mention of the procedures involved in carrying out the implementation activities which include training, conversion and installation.

## CHAPTER TWO:LITERATURE REVIEW

In a paper presented by Dr. Oshungade J.O of Dept. of statistics, University of Ilorin in April 1991 during a two weeks workshop for National population commission staff, he defined vital registration system as

"Legal registration, statistical recording and reporting of the occurrence of the collection, compilation, analysis, presentation and distribution of statistics pertaining to vital events which in turn include the births, deaths, marriages, divorces, adoption, legitimation, recognition, annulments and legal separation".

According to him, he believed that vital statistics and their analysis are essential features of public health work. He is of the opinion that vital statistics is more useful to the health sector than other areas. In his words

"Vital statistics and their analysis are essential features of public health work to (1) define its problems (2) determine the causes and effect and (3) measure the success or failure of the steps taken to deal with such problems and these are fundamental to the study of epidemiology".

To be fair to our learned lecturer, he was actually saying that vital registration system is very essential for proper and effective health planning.

He further identified two types of registration viz-a-viz conventional type (Compulsary registration) and according to him, set up of conventional type are.

"(i) Legislation law is passed that births and deaths should be reported

- (ii) The country is divided into areas for registration
- (iii) In each area, offices are set up and registrars are appointed
- (iv) The burden is on people to come forward to report events "

He identified this type with the method practised in developed countries. The second type which he called unconventional type is according to him more common in developing countries to him.

"In Nigeria because the legislation is not in force, detail data do not come from conventional type".

He described the unconventional type as that type which is not backed up by Law for compulsory registration. The method according to him include

- " (i) Home visiting usually found in some area for studying some health problems e.g Igboora in Oyo state
- (ii) Use of religious leaders like priests and Imams who officiate at naming, marriage and funeral ceremonies.
- (iii) Use of political leaders as it is practiced in Tanzania"

The summary of the above is that the unconventional system was the one practiced in Nigeria some years back, however as already indicated under "short history of vital registration system" that before the promulgation of decree 39 of 1979 which make the registration of birth and deaths compulsory, it was not uncommon in those days that data on vital events were collected through the methods enunciated for the unconventional type by the learned lecturer. However, this has not <sup>only</sup> change, the decree 39 of 1979 ~~is~~ further re-empowered through decree 69 of 1992 which officially & legally assigned the job of carrying out vital registration exercise to the commission on a national (nationwide) basis. The decrees further protect the various

regional and state law & edicts on vital events. Honestly, as if the distinguished lecturer was the one that designed the births & deaths forms used by the commission, he proffered characteristic of birth as "date of birth, date of registration, names, sex, type of birth legitimacy and place of occurrence and characteristics of parents such as date of birth or age, name, date of marriage, occupation, usual residence and names and ages of the previous children born to the mother if any before".

The characteristics of death registration according to him include "names, age, sex, marital status, occupation, place of birth, date and cause of death of the deceased"

Though, all these characteristics are not inherent in the present characteristics of birth and deaths as practiced by the commission, but it goes a long way in bringing out the essential features of birth and death registration.

Furthermore, in a paper delivered by Lt Col Chris Ugokwe(Rtd) Chairman, National population commission on the vital registration project during the world press conference on 15th February 1993, the importance and history of vital registration were expressed in detail. According to the chairman.

"Vital registration is the formal recording of the occurrence of vital events such as births, deaths, marriages, divorces e.t.c. These events are termed "vital" because they relate to happenings which affect the individual's entry into or departure out of life including changes affecting his Civil status during his Life time"

This means that anything that relate coming into and leaving the world could safely be called vital event. In his paper he enunciated the significance of vital registration as

"Obtaining accurate and reliable demographic data, playing complimentary role to census takings"

He observed that it performs functions which enhance the potentials of census figures in particular and demographic data in general to contributing to national planning and development through: check on census enumeration, population projections, educational planning, industries, epidemiological research, maternal fertility, population control programmes and migration.

In his paper the chairman traced vital registration in Nigeria to 1863 when an ordinance named ordinance no 21 was promulgated and this ordinance made provision for the registration of births, deaths and marriages for the census of Lagos colony, though the programme did not start until 1892 and extended to warri in 1903 and calabar in 1904. According to him evidence show that registration existed in the various former regions and in the states, though there was no co ordination of these registration and hence there was no universal system .He authoritatively traced the first conscious effort at having a universal system of registration of birth and death to 1979 with the promulgation of decree 39 of 1979 which makes birth and death registration compulsory. The Decree also aim at protecting the various laws relating to the registration of birth and death that existed in the various states of the federation. He finally informed his audience about the strategies mapped out by the commision in grasping

"with the problems involved in establishing a universal vital registration system"

These include extensive study/examination of past efforts in vital registration and proper examination of decree 39 of 1979 and other

ional laws

"with the intention of formulating a uniform decree that would ensure the establishment of a uniform system"

Another strategy was the examination of the pilot project on vital registration initiated by the then National Population Bureau. The result of these examinations was a nationwide vital registration experimental project which are of two stages. Stage one is the experimental phases which was carried out in four urban local government area of four states and this is referred to as "urban experimental phase I" And phase II referred to as "rural experimental phase II" covered four predominantly rural local government area of the same four states. The second stage is the Expansion phase. Practically, these two stages have been implemented by the commission and it has been adjudged successful.

No wonder the chairman basking on the past experience of National Population Commission in conducting a herculean task of conducting a nationally acceptable census and also given the success recorded so far in the experimental stages stated.

"The vital registration programme would receive handsome measure of efficiency, thoroughness and dynamism which have been the hallmark of NPC activities"

And from the look of things it appears that vital registration is going to be a success in Nigeria and the method to use will surely be the conventional type.

## CHAPTER THREE : SYSTEM ANALYSIS

### 3.1 Structure Of Vital Registration System/Roles Of Key Personnel

#### Under N.P.C

According to the decree establishing the births and deaths registration system, the Commission has the following staff for the registration system.

#### 1. Registrar-General

Is the apex of the registration system. His duties include:

(a) coordinates and unifies the activities of all registration officials involved in the implementation of the decree.

(b) Issues general directions regarding registration of births and deaths as may be necessary for the efficient implementation of the decree.

#### 2. Chief Registrar

Appointed for each state and duties:

(a) oversees the activities relating to the registration of births and deaths within the state or Federal Capital Territory, Abuja.

(b) reports and gives feedback to the Registrar-General.

#### 3. Deputy Chief Registrar:

Main operational head of the registration machinery in each Local Government Area. Duties include:

(a) organizes the work in L.G.A and supervises the work of the registrars.

(b) forwards tabulations and forms to the Chief Registrar.

(c) subject to the general directions of the Chief Registrar and Registrar-General.

#### 4. Registrar:

Grass root functionaries charged with the responsibility of

registering events at each registration centers established within the local Government Area. Duties include:

(a) obtaining full information on each vital event in the form concerned.

(b) maintaining good rapport with the local chiefs.

(c) forwarding forms periodically to the Deputy Chief Registrar.

(d) issuing certificates.

The chart on Appendix 4.1 depicts the structure of the vital registration system. The addition of the Chairman, who is the chief executive officer heads the Commission. He appoints and disciplines the Registrar-Registrar and other staff. He is directly represented by the Commissioner who also functionally takes care of all policies and other tactical decisions for the Vital Registration Department. The Director-General technically heads the Commission and co-ordinates all the departments' activities.

### 3.2 Feasibility Study

Based on the information received from staff of the Commission through interview conducted by this writer and reviewing the documents forms and publications of the commission, it was discovered that at present, the vital registration system is yet to take off in all the local Government Areas of the country contrary to the expectations of the Commission which had planned to start the project in 1993. This is due to lack of fund to recruit necessary staff and other logistics like vehicles, offices, motorbikes, bicycles etc. At present, the experimental stage is still in progress; all forms and data obtained are always sent to the headquarters in Lagos every month for compilation and processing. The forms used for this project "Experimental Project"

which incidentally is a replica of what is to be used for the actual nationwide project were designed with the aim of processing the data recorded on the forms with a computer system. But how efficient the design would be may be another question. The computer Department at the headquarters, Lagos normally process the forms sent to them from various states for analysis purpose and the result have been of help to the usefulness and practicability of the project.

At the moment, registrars are employed for the registration centres employed for the experimental project and staff are directly under the comptroller of such local Government who doubles as the Deputer Chief Registrar and send the necessary forms, tabulations or reports to the state office every month. At the state office, there is the vital registration department under the control of a head of department (H.O.D.) who receives the forms, tabulations and reports on behalf of the State Director who is the Chief Registrar and processing the data manually too; the tabulations and forms thus obtained are made available to the state Director (Chief registrar) who then forward them to the zonal headquarters for onward transmission to the Registrar-General. The Registrar-General thereafter send the forms and tabulations to the computer department where necessary coding, entering and processing of data are carried out. The processing of data however be done quarterly and analysis thus obtained are kept for interested users or inquisitors who will need to go through the vital registration department either at headquarters or at state levels in order to have access to such stored analysis.

### Technical Feasibility

At present, the Commission has a number of micro computer located at the zonal offices. Each of the seven offices has about thirty 286i IBM micro computers. About five states constitute a zone. These computers are used for entering the census data and since the job is almost completed, it will be more expedient and economical if the computers are divided and shared among the states offices of the Commission. The computerization at the state level may require about three 286i and one 386i using network system, the 386i system will serve as the file server(central processing unit) for the other three 286i. In this sense, the computer system to use are readily available. A printer may never need to be bought for obtaining hard copy analysis/information needed. An Epson 580 or laizer jet would be alright.

Furthermore, the installation and use of dBase4 which support network requirement needed by the system would go a long way in making the system workable and efficient. The use of dBase 4 will further makes advanced statistical analysis possible.

Moreover, the personnel needed for the system are readily available. Apart from the well trained field staff, the staff envisaged for the computer unit can be drawn from the pool of those engaged in census data coding. Fortunately, these staff were recruited from different states constituting a zone and thus can be sent back to their respective states thus saving the cost in term of money and time in employing and training new staff.

In other words, all the necessary technical support that the new system would require are already almost in place.

### Operational Feasibility

Given a well layout for entering data and a well trained and experienced staff, it is expected that the system would work. The support of the management is also expected to be positive considering the benefits the system would provide them.

Furthermore, temporary staff that are already getting worried about facing the employment market at the end of the coding job and are now being offered the opportunity of continuing their jobs though in a different setting but similar job would surely be enthusiastic in giving his best towards the new one. This shows that the enthusiasm expected from those to make up the staff of the computer unit would be another plus in making the new proposed system workable.

Moreover, the system is expected to be given a maximum protection and even access to the information stored is planned to be restrictive to individuals with the appropriate access rights.

### Economic Feasibility

The following are the financial and economic viability of the new system :

1. The cost of conducting a full system investigation would not be a serious problem since this has been taken care of by this study. In other words, the cost of developing the new system would be minimal since this study would have covered such development.

2. Most of the equipment needed are already available. These include airconditioners, computer system, table, chairs, etc. Also, the software needed would not pose a threat since the dbms software to use (dBase 4) is already available and the application software would be developed too in the course of this study.

The following benefits would be derived:

- (a) eliminate the cost of sending the forms to the headquarters
- (b) eliminate the problem of loss of forms or damage to forms on transit which is always associated with the current system.
- (c) reduce the cost of printing and buying stationeries for the various tabulations to be prepared by the Deputy Chief Registrar and chief registrars. Also eliminates the cost associated with maintaining registers both in terms of printing and space.
- (d) reduce the risk of travelling to submit the forms to the headquarters.
- (e) bring the information closer to the primary users.
- (f) provide efficient, effective, and accurate analysis that otherwise would have been impossible at the state level.
- (g) eliminate the possible redundancy of computer system and the staff at the end of census 1991 data entry.
- (h) reduce the work load of the Deputy Chief and Chief Registrar in term of tabulations and calculation and hence have time to monitor and subordinate staff more efficiently.
- (i) other jobs previously done manually can now be performed more efficiently, accurately, and effectively. These jobs include payroll, inventory control etc.
- (j) the system would also forestall situations when
  - these would be a baklog of job at the headquarters processing centre due to extension of registration centres to all Local Government Area
  - results/analysis obtained through quarterly processing may not be relevant to the end user.

### 3.3 System Investigation

Studying the existing system, the following processing can be documented .

#### 1. Registrar: Does the following:

(a) Records live births, deaths or still births as the case are reported to them in their offices, on specifically prepared form called lived called live birth registration form, death registration form or report on still birth respectively.

(b) The RRegistrars use notification of births, deaths and still births issued to village heads, hospital staff, clinic staff etc once they are returned to them in locating the new born child, families of the deceased or mother of a still child, as the case may be and subsequently, record the necessary information.

(c) Certificates are issued for live births and deaths once the necessary data have been documented on the respective forms . Information recorded on these certificates are obtained from data found on these forms.

(d) A registrar also keep and maintain a registers on births, deaths and still births . Information to be recorded on these registers are obtained from the forms such that a line on each register sheet correspond for every record. The registers are maintained for every year and at the end of each year, a new register is opened.

(e) The registrar also maintain a control register of forms which help him in maintaining a list of forms sent (submitted) to the Deputy Chief Registrar.

(f) Every month, a registrar sends the registration forms and the control registers of forms to the Deputy Chief Registrar. He also sends the registers once every year to the Deputy Chief Registrar.

#### 2. The Deputy Chief Registrar: Also do the following:

(a) He collects from the Registrars every month, registration forms on live births ,deaths and still births; and keep a copy of the control registers of forms after verification for completeness.

(b) He checks the forms for accuracy and correctness. if necessary wrong entries or gaps of information will be corrected or filled inquiry

(c) He prepares a set of tabulations periodically . Samples of such are shown on Appendix 3

(d) He collects the three mentioned registers and send same to the Chief Registrar once every year. He also send the forms to the Chief Registrars once every month.

(e) The tabulations thus obtained on live births, deaths and still births are sent to the chief Registrars once every month.

(f) He also maintains a control register of forms which he makes available to the Chief Registrar for his confirmation. A copy of the register is kept by him

3. The Chief Registrar: HE performs the following functions:

(a) He receives the registrations forms from the Deputy Chief Registrar. After the scrutiny, forward them to the Registrar-General through the zonal headquarters.

(b) After receiving the tabulations prepared by the Deputy Chief Registrars, He consolidates them and forward the state level tables to the headquarters (Registrar-General) through the zonal headquarters.

(c) Keep the registers prepared by the Registrars and keep seperated for each type of event and by registration area. He also ensures that there is an index on the shelves or boxes in which they are kept for easy identification and retrieval.

(d) He answers all inquiries on vital events in the state and if such statistics are available, present such to the inquisitor and if not available, liase with the headquaters for such statistics/information.

4. Registrar-General: He does the following activities:

(a) Receives all registration forms and send them to the coputer department which after coding, enter the data, process and generate the necessary reports.

(b) Answers all inquiries concerning information on vital statistics from staff and non- staff.

Finally, the charts on Appendix 4.2.1, 4.2.2 and 4.2.3 depicts the various processings carried out using the current system.

### 3.4 FINDINGS

#### 1. Maintaining capability and control

Since the computer and vital registration departments are distinct department each having a director as the head, it becomes impossible for the officers and the vital registration (e.g. Director) to have direct control over the staff under the staff under the computer department without going through the computer Director, which sometimes causes delay in policy implementation and directive due to red tape.

#### 2. Forms are first coded before entering them into the system.

However, the problem here is that sometimes forms are not legible enough and thus allow wrong data to be fed into the system such that the illegible forms are easily validated easily without travelling many kilometres away from the headquarters, which is unfortunately costly.

#### 3. Sometimes, the forms and tabulations are lost on transit and unfortunately, these registration forms do not have duplicate. This problem could lead to incompleteness and incorrectness of the analysis made.

#### 4. All states are required to forward their forms and tabulations to the headquarters every month and processing of these forms are expected to be done quarterly, however, the danger here is that backlog of work can set in if for example, the computer department has many pressing jobs to do at that time or if there is power failure for say many days.

#### 5. Moreover, waiting for three months before the forms are processed can lead to irrelevant and insufficient information.

6. The job for tabulations and compilation every month manually by the deputy chief registrar can be tiresome such that he may not have enough time to do other administrative jobs like monitoring and supervision.
7. The registers used for keeping (storing) information on events are not cheap, infact they are very expensive. Also, the the registers would need big store (space) and even free from insect proof boxes for their storage requirments. Furthermore, the registers need to be well organised for easy access and retrieval of information contained in them. All these demand a number of efficient staff as vital registration system grows.
8. any inquires from users resident in the state would have to be communicated to the headquarters before the management at state levels could have access to information needed. This could take weeks which can be frustrating to the users who need such information urgently. In addition to this, the management at the state levels are reduced to mere observer in the analysis of data they generate and this can be discouraging.
9. It appears that there's virtually no information needed that would not involve the use of papers, even a mere mistake on tabulations made by the various officers may require new paper however, prices of papers and other stationeries are skyrocketting everyday.
10. Analysis made at present are based on registration centres at the lowest level, the problem here is that the end users many at times do not know what constitute a registration centre

(area) and thus may find the analysis not too useful to his/her immediate environment. Infact, a casual user may want analysis of vital events of his village/town and nothing more.

All the above are the findings of the system investigation and the problems postulated can be minimised through a new system to be developed.

### 3.5 RECOMMENDATIONS/FEATURES OF A NEW SYSTEM

1. Sometimes, all the information (data) needed for filing the three forms may not be obtainable, this can occur in a situation in which there is abandoned baby, unclaimed dead bodies e.t.c. When this occur, the registrar may find it difficult to obtain information for certain entries on the forms, it is adviceable that the registrar probes deeply and endeavour to fill at least the identification division on the forms.
2. There should be a special code for each record and this code would be the key field of the record. The code would act as the key to accessing, storing and retrieving records. Such code would contain the codes identifying the state, local government, Registration centre, town/village where the event occurs and the entry number of such event in that particular registration centre.
3. The registrars should be provided with list of codes for all the events that need to be coded. They will use these lists to code the forms instead of allowing third party to do it somewhere. This will eliminate ambiguity and mis-

interpretation.

4. There will be new entries (fields) that take care of the the registration centres and the town/village where an event occurs. This will ease analysis.
5. For information to be useful and meaningful to the general public who will be the main users of the analysis/report, the registrars should make the forms available to the Deputy Chief Registrars every Friday and the Deputy Chief Registrar should after verification, cheeking and correction submit such forms to the chief Registrar every other day. The chief Registrar should after receiving the forms, verify and pass them to the computer section at the state levels or every Friday for data entry.
6. The processing of data should be carried out by the computer section at the state level every Thursday.
7. The programs written for data entry should have provision for data verification to reduce/eliminate duplication of records.
8. Where codes are supplied (filed) on the forms, the operator should enter the code otherwise the words written on the forms should be entered.
9. There should be provision for an efficient back up such that in a situation where the system fails, information logged on the system could be retrieved.
10. Analysis/processing of data should be done such that up-to-date information is available for each month and commulative for any period in a year.
11. Analysis should also be made based on each town/village,

local government and the state as a whole.

12. Access to some files should be restrictive to certain users/  
staff.
13. Programs should be written to edit, view and delete entered  
and stored records. The programs for this should cover live  
birth registration records, records for death and still birth  
registration similar programs should also be written for  
town/village file.
14. There should be an efficient communication system such that  
data/information stored on the system can be accessed from  
different work station located within the office.

## CHAPTER FOUR SYSTEM DESIGN

### 4.1 MENU DESIGN

The menus would be designed such that the users or personnel of computer department can choose the option on which he wants to work. In other words, it would be designed such that a number chosen (from a list of numbers) will correspond to a particular operation to be performed. There would also be an option of exiting the menu. Also, the design will take care of wrong entry of number such that the menu is re-displayed once a wrong entry of number is made. The menu would also be designed such that an option chosen may lead to another submenu.

One important thing to note however is that once an option is chosen, the system may prompt the user to supply his access right in form of password and if a wrong entry is entered, the system notifies the user that he has entered a wrong password and allow the user to enter it for the second time. If he fails again, the system returns to the dot prompt.

The menu design takes the form of hierarchy-input-processing-output (HIPO) depicted on Appendix 4.1. In the chart, the first hierarchy depicts the first menu and the branches from the main root (top of the hierarchy) correspond to the subsequent submenus.

### 4.2 OUTPUT DESIGN:

Since this system is designed with MIS idea, contrary to an electronic data processing management system (EDPMS), the design is either for visual display or printed output. One characteristic feature of this system is that any query can be made with the system and result (reports) generated provided the others have the right access and are thought on how to query the system (Another advantage-

ered by DBMS to non-programing users). Also the programmer can write necessary programms needed to do obtain any report demanded by the users. All that is needed to do is for the programmer to write programs that will source the information already processed and stored. This is contrary to an EDPMS which is majorly a transactional and fixed report based system.

#### 4.3 INPUT DESIGN

To gain access to the Input Screen format, the user would need to pass through menus and the option of adding records should be chosen. Once this option is chosen, the user would first be prompted with a message telling him the function to be performed. This serves as a reminder to the user as to the type of operation he wants to carry out. If he is not interested in carrying out the operation he may decide to return to the calling menu. This confirmation of processing is opened for all processings/activities to be performed by any user.

After this the user would be further prompted to supply the password, and if the password supplied is okay, the user can continue with processing activity otherwise, a message telling the user that he has entered a wrong password and allow the user to enter the password for the second time. If he fails again, the system returns to the dot prompt.

The next stage of the input activity would be the entry of the event's record key. This key is the event's code. Confirmation of an entered code (through depressing the return code) if yes, the user is notified that a record with such code already exists in the transaction registration file, if not the format for entering the data would be displayed and the data would be entered. At the end of the entry.

The user would be prompted to choose either to chosen either to the record again, save the record to the transaction registration or about saving.

The user having made the desired option would then be prompted either add more records or end the job. If the user decide to end job, he will be supplied with the number of record he was entered he started the entering session, this allows him to check if the correspond with the number of registration of forms [by manually entering the number session.].

The specific screen design for each of the registration forms follow the specification bellow.

1 Live Birth Registration Input Format Once the system confirm that an event's record code is not in existence. the identification division format is first displayed, after entering data for the appropriate entries, the child's particulars would be displayed below identification division. At the end of entry to this division, the child's particular division format would be cleared from the screen and another division will be displayed below the identification division which remain fixed until all the fields of the record have been entered for. At the end of the entry, the user is prompted to be chosen between saving the data, aborting saving or viewing as explained earlier and the routine continue as earlier stated.

2 Death Registration Input Format: Just like the live Birth Registration Input format, the death record's code existence would need to be validate, if not in existence, the identification division is brought out, and thereafter, the deceased's particular division is displayed, entering data for all the appropriate fields would clear the deceased's particular screen and the informat's screen would

isplayed instead at the end of entry of data for this division will gain lead to chosing between aborting saving, viewing or saving the record, and the routing as earlier stated under this section continuous from theree.

3. Still Birth Registration Input Format: The procedures are similar to the described above with each division on the registration form allowed to be displayed for filling purposed below the identification division which is fixed until all the fields are entered.

One should note that screen format is available for each record

#### 4.4 Design of File:

The chart showed on appendix 4. the relationship between the files used in this system. It depicts how the files are related together and the type of operation performed by each file.

The various files can be described under the following heading:-

#### A Mater Files:

- (a) The storage of information about occurence of an event is vital to the commision. Infact one of the objective of this new system is to find a way of achieving better storage of data and of reducing costs associated with Registers.

The files include

1 Live Birth Master File: This files hold data relating to live births occuring in the state. The source of this file is the live birth transaction file. Once the live birth transaction file is processed, the information (record) on the transaction file are automatically added to the master file. The file can be viewed only. Content of this file include:-

REG-AREA	SEX	M-STATUS
TOWN	POO	M-NATION
LGA	TOWN-REG	MS-ORIGIN
STATE	TOB	ME-ORIGIN
BCODE	B-ORDER	M-L
DOR	N-MOTHER	MEDU
N-CHILD	ADD-MOTHER	MOCCU
F-AGE	M-AGE	N-FATHER
F-NATION	N-INFOR	
FS-ORIGIN	ADD-INFOR	
F-L	INFOR-RTC	
FEDU	TCODE	

ii) Death Master File: The source of data and processes of

is file looks similar to the Live Birth Master File. Its contents include:-

REG-AREA	DOD	EDU
TOWN	POD	CERT
LGA	AGE-D	CAUSE
STATE	ADD	REL
DCODE	NATION	N-INFOR
DOR	S-ORIGIN	ADD-INFOR
N-DE	E-ORIGIN	TOWN-REG
SEX	M-STATUS	TCOSE
OCCU	LITE	

iii) still Birth Master File Features are also similar to

Death and Live Birth Master Files. Contents include:

REG-AREA	TOB
TOWN	SEX
LGA	N-MOTHER
STATE	ADD-MOTHER
SBCODE	M-AGE
DOR	MS-ORIGIN
POO	RTM-INFOR
TOWN-REG	N-INFOR
TCODE	ADD-INFOR

(B) The processed/analysed data need to be stored in a special way so that it can be accessed and referenced. The files for these processed data (information/analysis) can be used to generate report in a customized/format form as dictated by the user using query language and computer languages. These files are:-

1. town's monthly statistics files:

These files contain monthly statistics/summary for each town/village. The files use lists of months and Towns table files repeatedly as reference for processing and updating. The live birth transaction summary file is used to obtain the file. The statistics obtained on the corresponding transaction summary files are used to update the statistics on the file and once this is achieved, the information (Statistics) on the corresponding transaction summary file is deleted. Monthly report files can be generated from these files. These files include.

i. Town's Monthly Live Birth Statistics File

contents include:-

TCODE	SING	HOME	BO_4
STATE	MULT	MA	BO_5
LGA	UN15	NMA	BO_6
TOWN	BW1645	WID	BO_7
MONTH	OV45	DIV	BO_8
YEAR	HOS	SEP	BO_9
MTOTAL	TRADOC	BO_1	BO_09
MALE	BOTHERS	BO_1	A15-19
FEMA	MAT	BO_3	A20-24
A25-29	MEPO		
A30-34	MEUN		
A35-39	MENO		
A40-44	FEI		
A45-49	FEPR		
A050	FES		
ME1	FEPO		
MEPR	FEUN		
MES	FENO		

(ii) Town's Monthly Death Statistics File Its contains include:-

TCODE	UMUM	MAT	CB	A065
STATE	UNLY	HOME	IN	DE1
LGA	FUN15	DOTHERS	SE	DEPR
TOWN	FINW1045	DIV	SU	DES
MONTH	FOV45	SEP	COTHERS	DEDO
YEAR	HOS	A1	A1-4	DEUN
MTOTAL	TRADOC	BP	A5-14	DENO
MALE	MA	FE	A15-24	
FEMA	NMA	DS	A25-44	

UNIW	WID	RS	A45-64
<u>(iii) Town's Monthly Still Birth Statistics File</u>			
contents include:-			
TCODE	HOS	UN15	A45_49
STATE	TRADOC	A15_19	1050
LGA	MAT	A20_24	
TOWN	HOME	A25_29	
MONTH	DOTHERS	A30_34	
YEAR	MALE	A35-39	
MTOTAL	FEMA	A40-44	

## 2. Town's Yearly Statistics File: Just like the Town's

monthly statistics files. They contain yearly statistics of the forms the state. The Town's monthly statistics files are used respectively to process and update this file. However, only the town's table is used repeatedly as reference for the processing/update. Information in this file are used to generate reports yearly for towns. The files include.

(i) Town's yearly Live Birth statistics file It contains statistics pertaining to live births and the contents are the same with Towns monthly Live Birth statistics file except the exclusion of the field representing the months i.e MONTH.

(ii) Town's Yearly Death Statistics File: Like Live Birth Statistics files in (i) above it contains death statistics and the contents are the same with towns' Monthly death Statistics except the absence of month field.

(iii) Town's Yearly Still Birth Statistics Files: The field for Month is also excluded from the fields found in Town's Monthly still Birth Statistics file.

## 3. L.G.A. MONTHLY STATISTICS FILES:

These files contain statistics for each LGA in the state. The features are similar to that of (i) above except that the statistics are for each LGA and not towns. The files are also used to generate report files for monthly statistics of Local Government Area (LGA).

The Town's Monthly Statistics file is normally used to process/update each of this files. Like the statistical files above, the files include:-

- (i) LGA Monthly Live Birth Statistics Files The contents are the same with Town's Monthly Live Birth Statistics Files except that the file does not contain fields for Town's/villages and Town's/Village code i.e

TOWN

TCODE

- (ii) LGA Monthly Death Statistics Field The contents are the same with Town's Monthly Death statistics file except for the exclusion of fields for name of town/village and town/village's code.

- (iii) LGA Yearly Statistics Files feature similar to (i) and (ii) above

4. LGA Yearly Statistics Files

These files store the yearly statistic of each LGA in the state.

The LGA Monthly statistics files are used respectively to process and update these files. The files also use LGA table file for reference purpose. Access to these files is the LGA code and the major difference between the files and that of LGA Monthly statistics files is the conspicuous absence of field for Month in the database. Yearly reports for each LGA statistics can be obtained through these files.

The files include:-

- i. LGA yearly live birth statistics file
- ii. LGA yearly Death Statistic file
- iii. LGA yearly still birth statistics file

5. Monthly State Statistics File These files store monthly statistics for the state as a whole. The files are processed/updated using the monthly LGA statistics files. The files similar to that of monthly LGA statistics files in term of content except that the field for LGA is absent. Furthermore, these files are always transmitted to the N.P.C. headquarters of the Commission for further collation, processing and obtaining the National statistics.

ese are:-

- i. Monthly State Live Birth Statistics File
- ii. Monthly State Death Statistics File
- iii. Monthly State Still Birth Statistics File

6. Summary Files These files contain summary for the towns and

As. The files contain fields like totals for Live Birth, Death and Still Birth. The files extract data from the appropriate statistics file. These files are:

- (i) Monthly Town's Summary Files: This summarizes monthly totals for live birth, death and still-birth for each of the town. Its contents include.

Town	MBirth
TCode	Mdeath
LGA	MsBirth
State	
Month	
Year	

The input to these files are Monthly totals for Town's live Birth, death and still birth statistics files.

- (ii) Yearly Town's Summary File This file also contains the yearly Summary for each town. The sources of data for this file are yearly totals for towns' live birth, death and still birth statistics files. The contents are also the same with Monthly towns summary file except that Month field is excluded from the database.
- (iii) Monthly LGA Summary File: The file looks similar to Monthly Town Summary. The difference is the absence of field specified for Town and towns code. The input files are Monthly LGA Statistics files with the extraction of Monthly totals fields.
- (iv) Yearly LGA Summary File: The input files for processing and updating this file are yearly local government statistics files and the contents are the same with that of Monthly LGA Statistics files.

#### (B) TRANSACTION FILES

These are files that are not permanent in nature. They are used to store data information temporarily and most often deleted at the end of their usefulness. There are two major types of transaction

les for this system.

(A) Registration Transaction Files

These files are used in storing data input from the registration forms. The files include:

- i. Live Birth Registration Transaction file
- ii. Death Registration Transaction file
- iii. Still Birth Registration Transaction file

One typical feature of these transaction files is that their contents are similar to that of corresponding master files. However, once the files are processed, the contents (records) are automatically deleted and made ready for new entry of records. another feature of the files is that before records are entered, the event code is first entered and tested for possible existence of another record with duplication of information.

Furthermore, records on these files can be edited and deleted.

(B) Summary Transaction Files These files are obtained through the processing of registration transaction files. Before the data on registration transaction files are appended to the the Registration master files, they are first processed and analysed and statistics thus obtained are initially stored temporarily before the statistics are accumulated to the monthly Towns, statistics master file. After the processing of the Registration Transaction file, the files (Registration Transaction file) are appended to the corresponding Registration master file, and thereafter data stored on the Registration transaction file are deleted. Furthermore, the summary transaction file is then used to update the Town's monthly statistics file and thereafter deleted too.

These files use the Towns code and month fields as key fields in processing.

The contents (database fields) are the same with those of Townn  
monthly statistics files.

(C) TABLE FILES: There are three table files designed for this  
system. These files contains list of records that can be referenced  
repeatedly to process the statistics and summary files more efficien-  
tly. These files include:

- i. List of Towns: This file contains the list of towns/villages  
in the state and the file is indexed. The record key to this  
file is the town's code. This file is used to process month-  
ly towns live birth, death, still birth summaries and statis-  
tics files. Data on this file are entered, edited, deleted  
and viewed directly without writing a program for it. Its  
contents include:  
TOWN  
TCODE  
LGA  
STATE
- ii. List of LGA This file like the towns' list contains LGAs in  
the state. Its feature is similar to list of towns and its  
contend include:  
LGA  
STATE  
LGA CODE
- iii. List of Months: This is also used for listing months in a  
year. Its content has only one field i.e. Month and the  
number of records signifying months is twelve.

#### 4.5 PROCESSING DESIGN

1. Enter data on the registration forms on the appropriate regi-  
stration files from Monday to Thursday. During this time,  
the data (records) can be edited or deleted.
2. on Fridays do the following
  - i. Process the Towns' Monthly statistic files
  - ii. Process the yearly towns statistic files
  - iii. Process the LGAs monthly statistic files
  - iv. " " LGAs yearly " "
  - v. " " Monthly States " "
  - vi. " " Summary files
  - vii. At the evening on Fridays, transmit the data on monthly  
State statistics files to the headquarters.
3. On Monday, begin to enter the data again and thereafter on  
Friday, follow step 2 above.

4. Repeat steps (2) above for each of the major file i.e live birth death and still birth files.

The processing procedures are also designed such that at each stage of processing activity, certain users (staff) are permitted to carry out the appropriate processing i.e All users are required to identify themselves properly and indicate by applying the appropriate password, that they have access right to the system.

#### 4.6 backup design

To avoid loss of data, in case computer system develop faults or other tragedy like loss of system occurring, there is need for backup. Three different labelled diskette holders would be used. One will be called the grandparent, one parent and the last one child. Once the statistics files are generated, the files would be copied (duplicated) on a new diskette and stored in the holder marked child. When next the statistics files are updated, the current (updated) one will be stored on a new diskette hence, the first one (child) becomes the parent and will be stored in the holder labelled parent it retains the information on the the proceeding statistics. When the statistics file is updated again for the third time, a new diskette would be used to store the information on the statistics files: hence the previous one becomes the parent and the first becomes the grandparent. The former one that was kept in the parent marked grandparent, and the one inside the holder marked child. When next, the statistics are update, it would be copied to the diskette inside the holder marked grandparent and kept inside the one marked child while the other diskettes shift places  
tc

Also, this design would be used for Registration master files, though 3 1/4 inch deskettes is highly recommended for these files.

#### 4.7 Communication Design

Two communication methods will be used to cater for the input and output requirements of the organisation:

##### 1. Local Communication Design

The chart on Appendix 4.5 shows how the system should be designed within the state.

As stated earlier, four micro computers will be used. One (i.e. 286) will be used as the file server while the other three will be located at different places in the offices. One of the 286 computers however should be installed where the file server is and the other two can be installed at Director's office and Head of vital registration office.

The channel that will be connected to the computers will be coaxial cable and the cable's means of access is carrier sense multiple access/CD (CSMA/CD) so that user can access the network at random intervals and reduced possible collision. Also connected to the coaxial cable is a printer which could be installed at the Director's office. The choice of coaxial cable will eliminate the need for modem for each of the micro computers, increase resistance to electrical interference. The coaxial cable would also be a base band and asynchronous transmission type. These will reduce the cost of designing the network. A network software (e.g. unix or xenix) should be used to meet the network requirements. Using this design, allows files to be stored, accessed, processed and retrieved from the file server. The sharing ability of the network eliminates the need for separate copy of the software on other computers. Also, the copies of files to be printed can be sent to the printer attached to the network host.

## II Remote telecommunications:-

Since some statistics need to be transmitted to the headquarters and since the N.P.C. headquarters may decide to access (retrieve) information from the state offices there is need for a long-range communication system.

Since transmitting is not frequent, switched network or dial-up lines (public telephone network) should be used to connect the file server with the central computer at the headquarters of the commission and the time of transmission of data should be in the evening of every Friday. Since there is need for the headquarters to access the state office computers, then a half duplex lines would be used for the network.

Furthermore, direct-connect modem will be used to connect the file server with the telephone line at the state officers end. In other words, the card modem will be connected to special slots in the computer and make direct contact with the circuitary of the systems connected to the telephone network through ordinary length of telephone wire. At the headquarters end, rack modems containing smart modems mounted in separate cabinet in the computer room will be used to connect telephone lines to the central computer. However, since the telephone lines will handle synchronous transmission as opposed to asynchronous transmission of computer, a synchronous-to-asynchronous computer will be used in between the rack and the central computer. Also at the headquarters end, Data switch in form of micro computer would be added to the configuration so that instead of having separate line of communication into the central computer parts and slots, for each state, a single line using the Data switch mechanism (equipment)

could be added to the configuration at the headquarters such that all files from the states are hooked up with this mechanism and thereafter transmitted to the modem and then the central computer. The Data switch has an added advantage in that it can also dial and receive call.

## CHAPTER FIVE SOFTWARE DEVELOPMENT

Dbase III+ would be used in developing the necessary programs needed to accomplish the objective of the system design enumerated above. The various programs needed are already written and tested and they are stored on diskettes, however, parts of the programs are printed and attached as Appendix 2.

A brief description of each of the essential programs with special reference to live birth and few for still birth and deaths, are given below. It should however be noted that other programs for still births and deaths are similar to that of live births except for the contents.

- 1. main. prg:- This is the main menu from which a user is prompted to select a number that represent a particular operation he wishes to perform.
- 2. Birthm. prg:- A submenu for live birth activities, however, the user will be prompted to supply his password before he can have access to the various activities under this submenu.
- 3. Addbirth. prg:- This allows records of live births to be added to live birth master file for storage or further processing.
- 4. Editbirth. prg:- This allows live birth records stored in transactional live birth file to be amended.
- 5. Delbirth. prg:- Allows records stored for live birth to be deleted.
- 6. Viewbirth. prg:- Allows viewing of live birth records.
- 7. Searbirth. prg:- Allows live birth records with the same (similar) code numner to be identified.
- 8. Sec 1 prg; Sec 2 prg; Sec 3 prg:- These programs help the system to validate the access right of users to processing activities.
- 9. Ocol. prg:- Displays the colouring design for the various menus.
- 10. Birthupd. prg:- Submenu for the various analysis and update required to be performed for live birth.
- 11. Sumbirth. prg:- Computes and updates monthly live birth statistics for each of the town/village.

2. Psumbirth. prg:- A submodule that helps sumbirth. prg. to achieve its task.
3. Ysumbirth. prg:- Does the operation like sumbirth. prg. except that it is on a yearly basis.
4. Mlsubirth. prg:- Updates monthly live birth statistics for each of the local government.
5. Ylsubirth. prg:- Similar to Mlsubirth. prg but does its operation on a year basis.
6. Mssubirth. prg:- Updates the yearly live birth statistics for the state as a whole.
7. Yssubirth. prg: Does the same operation like Mssubirth. prg, but on a yearly basis.
8. Addtowns. prg:- Allows towns/villages and their codes to be stored for reference purpose.
9. Edittowns. prg:- Allows changing to be made to records for each town/village.
0. Viewtown. prg:- Allows town/villages records to be viewed.
1. Deltowns. prg:- Allows records for town/villages to be deleted.
2. Seartown. prg:- Allows towns/villages with the same code to be searched and identified.
3. Vsum. prg:- Is the submenu for the summary of live births, still births and deaths operations required to be performed.
4. Mtsum. prg:- Allows monthly totals to be performed for each town.
5. Ytsum. prg:- Allows up to date of yearly totals to be performed for each town.
6. Mlsum. prg:- Allows monthly totals to be performed for each local government.
7. Ylsum. prg:- Allows up-to-date yearly totals to be performed for each local government.
8. Adddeath. prg:- Just like Addbirth. prg, it allows death records to be entered and stored on deaths master file for storage or further processing.
9. Sumdeath. prg:- Allows computation and analysis to be made on stored records such that statistics obtained are used to update the monthly death statistics.

0. Psumdeath. prg:- A sub module that aids sumdeath. prg to accomplish its task.
1. Addstill. prg:- Perform similar operation like Adddeath. prg except that it add still birth records to still birth files.
2. Sumstill. prg:- Activities similar to sumdeath. prg but for still birth statistics.

## CHAPTER SIX: SYSTEM IMPLEMENTATION

The activities to be discussed here include procedure for training, installation & conversion of files.

### TRAINING

Two types of training would be conducted; one will be for the management and the other for the direct users (operators and data entry personnel).

(A): DIRECT USERS TRAINING: These users are staff members that enter, maintain, edit and use the terminals for other processing activities. Though, these staff are supposed to be well experienced on the use of computer system since they must have acquired such experience while they were working on the census data at the zonal headquarters' computer department, they still need to be given in-house training on how to use the system. This system designer may need to be contacted and since he is a staff, the cost of making him to conduct such training probably on zonal basis for the states would be minimized. The training will include how to handle the computer systems that are now connected with a file server and how they can access and even query the data/information stored in the system. The use of dbase IV provides an efficient query language that will make a non-programmer to access and even generate report with ease so far the users are taught, hence, these users will have to be taught on how they can query the system with ease.

The users will also have to be taught on how to operate the system physically especially on the use of printer.

Other things they will have to be taught are:-

- i. Daily run activities i.e when the system should be in operation files needed for the system e.t.c.
- ii Periodic report generation including forms and documents needed

for printing purposes and

- iii Emergency procedures including indicators that a process is taking longer time than normal or that the system are appearing not working properly and how to handle such situations.

The training will also include how to send reports/statistics required by the NPC Headquarters and at the appropriate time.

Management User Training:- The trainging for this category will be in two phrases

i. Short courses from a specialized training centre (i.e. computer training centre) on operating system, DBMS and dbase III + or dbase IV is essential. This analyst (writer) may be consulted to give advice on which of the many training institutions should be contracted for such courses. With this fundamental (knowledge) training acqiared by the management users, the second traing can commence.

ii. The second training involves the analyst conducting special training session for the management users on how to use the system and how to generate/access statistics and reports. They also need to know how to make printout and general knowledge on how to handle the computer system and the printer.

## 6.2 INSTALLATION

Since the computer systems that could be used are available at the zonal headquarters there is no need to order for the delivery of such item. However, the printers would have to be Ordered, same with stabilizers and all the necessary papers (stationery), prior to the arrival of the equipment and stationery, the coaxial cable required for the communication needs to be laid. The printer would have to be installed at the director's office in order to have a proper control and monitor on the use ofthe printer and stationery.

Furthermore, a single phase should be used for the connection of t systems with the electrical power. No any circuits or appliances would be permitted on the computer circuit.

Since the carpets were laid in the offices without computer consideration in mind, Antistatic mats should be laid around where the

computers would be placed so as to avoid static electricity problems which could be carried by the operators and other personnel and subsequently passes to the computer equipment. The static charge can cause accidental erasure of data.

A well designed tables and chairs should be provided too. The tables, chairs and other conveniences should be suitable for computer job.

A digital telephone line should also be used for the correction of the file server through a modem to the headquarters. This will ensure direct and less busy lines for the system. It will also reduce noise often associated with the conventional lines. Stabilizers should not be left out, this will regulate light fluctuations.

Special protection means like iron gate and fire proof boxes for the diskettes should be provided to safeguard burglary of the offices where the systems are kept. All these requirements stated above should be on hand (provided) at least two weeks before the implementation (conversion) date of the new system.

### 6.3 CONVERSION

Since it is likely that by the time this new system would be installed and implemented data must have been created and stored on the various forms; what will need to be done would be to first enter the data found on those forms (Live Birth, Death and still Birth Registration forms) during normal hours and even management arranging for overtime. During this period, the recommended weekly processings would not be carried out until the entry of the already batched forms are entered into the computer system. Subsequently, new records on fresh registration forms will be entered and the weekly processing can then commence.

Direct method of conversion would be used. This saves the cost of maintaining the old system alongside the new ones were the parallel method chosen.

However, a state like the one used for this study may be used as an experiment. Once the management of the commission at the headquarters is satisfied with the efficiency, effectiveness and accuracy of the experimental system, the system could be implemented in other states.

## CHAPTER SEVEN: CONCLUSION

### 7.1 Summary:

Vital registration system is an important exercise that aids planning especially in the areas of education and health. It also aids population projections, cross-checking accuracy of census results and population control programmes. It is a very useful means of updating the census figures between the inter-censal period.

Vital registration is continuous because the events it seeks to record occur on a daily basis and hence makes it possible to know the exact population size at any given time.

At present, the current system allows data to be captured on various forms at different registration centers which are then submitted through the Local Government Area offices, to the state offices of the Commission. Forms are normally batched and transmitted to the headquarters at specified period and data/information found on these forms are entered into the computer system and processed quarterly.

However, this process has been causing serious delay in obtaining reliable and relevant information at the right time. Many times, the statistics thus obtained from the quarterly processing are irrelevant by the time they get to the end users. There are also problems of loosing (which unfortunately have no duplicates) on transit, high cost of keeping data especially using the registers and difficulty in obtaining necessary information when needed.

Furthermore, the system isolates the state management officers on the production and dissemination of information concerning vital statistics and analysis. The system also unnecessarily creates odd jobs of tabulations for the various officers at the state and local Government

Area levels when these officers supposed to be supervising their various subordinates; unfortunately, the tabulations thus obtained are not vital enough for the end users.

By and large, the new system is designed to overcome problems enunciated above. Among the features of the new system are:

New code for storing data, processing data, data capture, access and retrievals of information.

Access to the system requires some elements of access rights before access is granted to an inquisitor, this ensures that information is not made available to wrong hand or users gaining access to the system.

The usual transmission of forms through either post or hand delivery is avoided, instead, data found on these forms are entered into the computer system and thereafter transmitted through the communication means designed (i.e telephone linked to the computer system).

The management at the state levels can also have a direct access to information and statistical analysis obtained through processing at any time without the need to communicate to the headquarters. This gives more job satisfaction; The end users also have the opportunity to receive fast responses to their requests. Above all, the new system will not only widen the scope of the management of the commission in the administration of vital events, but also creates avenue for them to be computer literate.

## 7.2 Recommendation

1. For the new system to work efficiently, the implementation strategies enunciated above need to be followed to the letter.

2. There is also the need for the Commission to employ the services of at least, a Programmer at each of the state offices. These programmers will help to maintain and modify the programs designed and developed by this writer. The Programmers will also write programs to generate reports as demanded by the management. New programs may also be written to accommodate new changes in policy, regulations and goals of the Commission.

3. In areas that are prone to constant light fluctuations, electricity generators may be bought and installed to aid the efficiency and effective computerized system. Special arrangement can also be made NEPA in the connection of the electricity lines with a regular and constant line.

4. The Commission should always make fund available to pay (settle) their electricity bills to avoid their lines from being disconnected which could be disastrous to the efficient workability of the system.

5. For the Commission to be self-sustained, in the very near future, certain files should be charged on the certificates issued by the Commission. Certain statistics/information needed by some organisations should attract fees too. This will go a long way in sourcing fund to financing and maintaining the system.

### 7.3 Suggestions

This study is not inexhaustible neither it is written without possible flaws. Infact, just like many other research works, there are still many rooms for re-designing not only the system but even the software(programs) developed. For example, the Commission can decide to install and implement a minicomputer at the atete offices ontrary to my recommendation .However, this will surely affect the system design and subsequently, the programs. The cable wire recommended for the internal communication may be replaced with telephone wire.

In the programs written, the menu may be designed in a way that all users are free to use and access the system.

The processing of the data can be made such that it will be based on both towns/villages and registration areas since the Commission may like to use the result based on the registration areas for monitoring and evaluation of staff, and relevance/necessity of registration centers.

In the course of designing the software, some statistical parameters were left out, for example, father's and mother's ethnic/state of origin. The software does not also accomodate information based on country of origin for Non-Nigerians.

In essence, there are still more rooms for future research work, infact, as the Commission gain more experience in the management of vital registration system, new ideas and goals would evolve and new design/modification of design may need to be carried out.

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SET TALK OFF  
SET STATUS OFF  
SET SCOREBOARD OFF  
PUBLIC B

= 0

NO OCOL

DO WHILE .T.

STORE 0 TO NO

04,22 SAY "VITAL REGISTRATION MAIN MENU"

07,5 SAY "1"

07,18 SAY "PERFORM BIRTH OPERATION"

09,5 SAY "2"

09,18 SAY "PERFORM DEATH OPERATION"

11,5 SAY "3"

11,18 SAY "PERFORM STILL BIRTH OPERATION"

13,5 SAY "4"

13,18 SAY "PERFORM SUMMARY OPERATION"

15,5 SAY "9"

15,18 SAY "RETURN TO DOT PROMPT"

22,22 SAY "SELECT YOUR CHOICE FROM 1 - 9" GET NO PICT "9"

READ

DO CASE

CASE NO = 1

IF B=3

RETU

ENDIF

DO BIRTHM

IF B= 3

RETU

ENDIF

CASE NO = 2

IF B= 3

RETU

ENDIF

DO DEATHM

CASE NO = 3

IF B= 3

RETU

ENDIF

DO STILLM

CASE NO = 4

IF B= 3

RETU

ENDIF

DO VISUM

CASE NO = 9

CLEAR

RETURN

OTHERWISE

LOOP

ENDCASE

ENDDO

RETURN

```
      SET TALK OFF
SET STATUS OFF
SET SCOREBOARD OFF
PUBLIC B
B = 0
DO OCOL
DO WHILE .T.
STORE 0 TO NO
@7,18 CLEAR TO 18,55
@4,25 SAY "BIRTH          SUBMENU"
@7,5 SAY "1"
@7,18 SAY "PERFORM ADD RECORD"
@9,5 SAY "2"
@9,18 SAY "PERFORM EDIT RECORD"
@11,5 SAY "3"
@11,18 SAY "PERFORM VIEW RECORD"
@13,5 SAY "4"
@13,18 SAY "PERFORM DELETE RECORD"
@15,5 SAY "5"
@15,18 SAY "PERFORM COMPUTATION AND UPDATE"
@17,5 SAY "9"
@17,18 SAY "RETURN TO  MAIN MENU"
@21,22 SAY "SELECT YOUR CHOICE FROM 1 - 9" GET NO PICT "9"
READ
DO CASE
CASE NO = 1
DO SEC1
IF B=3
RETU
ENDIF
DO ADDBIRTH
CASE NO = 2
DO SEC1
IF B=3
RETU
ENDIF
DO EDITBIRTH
CASE NO = 3
DO SEC2
IF B=3
RETU
ENDIF
DO VIEWBIRTH
CASE NO = 4
DO SEC1
IF B= 3
RETU
ENDIF
DO DELBIRTH
CASE NO = 5
DO SEC3
IF B= 3
RETU
ENDIF
DO BIRTHUPD
CASE NO = 9
CLEAR
RETURN
OTHERWISE
LOOP
ENDCASE
ENDDO
```

```

SET TALK OFF
SET STATUS OFF
STORE SPACE(1) TO TS
@1,2 TO 5,60 DOUBLE
@2,4 SAY "THIS PROGRAM ADDS DATA TO BIRTH FILE"
@3,4 SAY "Press any key to add record(s) OR (R) to return" GET TS
READ
IF UPPER(TS) = "R"
RETURN
ENDIF
START = RECNO()
CLEAR
DO WHILE .T.
DO WHILE .T.
@1,1 TO 10,75 DOUBLE
@2,20 SAY "LIVE BIRTH REGISTRATION FORM"
@3,20 SAY "-----"
STORE SPACE(15) TO
CREG_AREA,CTOWN,CLGA,CTOWN_OCCU,CME_ORIGIN,CFE_ORIGIN,CM_TOWN,CF_TO
WN
STORE SPACE(10) TO
CSTATE,CMS_ORIGIN,CFS_ORIGIN,CINFOR_RTC
STORE CTOD(" / / ") TO CDOR,CDOB
STORE SPACE(1) TO CSEX
STORE SPACE(30) TO CN_CHILD,CN_MOTHER,CN_FATHER,CN_INFOR
STORE SPACE(40) TO CADD_MOTHER,CADD_FATHER,CADD_INFOR
STORE SPACE(8) TO CTOB,CM_STATUS
STORE SPACE(2) TO CB_ORDER
STORE SPACE(12) TO CM_NATION,CF_NATION,CMEDU,CMOCCU,CFEDU,CFOCCU
STORE SPACE(20) TO CPOO
STORE SPACE(3) TO CF_AGE,CM_AGE,CBRV,CM_L,CF_L
STORE SPACE(5) TO CENO
STORE SPACE(19) TO CCODE
STORE SPACE(9) TO CVCODE
USE BIRTH
SELE A
@4,10 SAY "REG. CODE:" GET CCODE PICT "99/99/999/999/99999"
READ
LOCATE FOR BCODE = CCODE
IF FOUND()
CLEAR
@1,2 TO 5,60
@2,4 SAY "RECORD ALREADY EXISTS PLEASE"
@3,4 SAY "Press any key to continue..."
READ
@2,4 CLEAR TO 3,50
EXIT
ENDIF
@6,2 SAY "REG AREA:" GET CREG_AREA
@6,29 SAY "REG VOL:" GET CBRV
@6,47 SAY "VILL/TOWN:" GET CTOWN
@8,2 SAY "ENTRY NO:" GET CENO
@8,17 SAY "LGA:" GET CLGA
@8,37 SAY "REG DATE:" GET CDOR
@8,57 SAY "STATE:" GET CSTATE
@10,1 TO 23,75 DOUBLE
DO WHILE .T.
@24,2 SAY SPACE(70)
@11,20 SAY "PARTICULARS OF CHILD"
@12,20 SAY REPL("-",21)
@14,2 SAY "NAME OF CHILD:" GET CN_CHILD
@16,2 SAY "DATE OF BIRTH:" GET CDOB
@16,35 SAY "SEX      :" GET CSEX
@18,2 SAY "PLACE OF OCCU:" GET CPOO
@20,2 SAY "TOWN OF OCCU:" GET CTOWN_OCCU

```

```
20,40 SAY "TOWN OF OCCU. CODE:" GET CVCODE PICT 99,
22,2 SAY "TYPE OF BIRTH:" GET CTOB
22,35 SAY "BIRTH ORDER:" GET CB_ORDER
EAD
24,6 SAY "Press any key to enter data for more fields please.."
EAD
11,20 SAY "PARTICULARS OF MOTHER"
12,20 SAY REPL("-",21)
14,2 CLEAR TO 22,74
24,2 SAY SPACE(70)
14,2 SAY "NAMES(SURNAME 1ST)" GET CN_MOTHER
16,2 SAY "ADDRESS OF RESIDENCE" GET CADD_MOTHER
18,2 SAY "AGE AT BIRTH" GET CM_AGE
18,20 SAY "MARITAL STATUS" GET CM_STATUS
18,45 SAY "NATIONALITY" GET CM_NATION
20,2 SAY "STATE OF ORIGIN" GET CMS_ORIGIN
20,28 SAY "ETHNIC" GET CME_ORIGIN
20,53 SAY "TOWN" GET CM_TOWN
22,2 SAY "LITERACY" GET CM_L
22,19 SAY "LEVEL OF EDU." GET CMEDU
22,50 SAY "OCCUPATION" GET CMOCCU
READ
24,6 SAY "Press any key to enter data for more fields pleas.."
READ
11,20 SAY "PARTICULARS OF FATHER"
12,20 SAY REPL("-",21)
14,2 CLEAR TO 22,74
24,6 SAY SPACE(70)
14,2 SAY "NAMES(SURNAME 1ST)" GET CN_FATHER
16,2 SAY "ADDRESS OF RESIDENCE" GET CADD_FATHER
18,2 SAY "AGE" GET CF_AGE
18,15 SAY "NATIONALITY" GET CF_NATION
20,2 SAY "STATE OF ORIGIN" GET CFS_ORIGIN
20,28 SAY "ETHNIC" GET CFE_ORIGIN
20,53 SAY "TOWN" GET CF_TOWN
22,2 SAY "LITERACY" GET CF_L
22,19 SAY "LEVEL OF EDU."GET CFEDU
22,50 SAY "OCCUPATION" GET CFOCCU
READ
24,6 SAY "Press any key to enter data for more fields please.."
READ
11,20 SAY "PARTICULARS OF INFORMAT"
12,20 SAY REPL("-",23)
14,2 CLEAR TO 22,74
24,2 SAY SPACE(70)
14,2 SAY "RELATIONSHIP TO CHILD" GET CINFOR_RTC
16,2 SAY "NAMES (SURNAME 1ST)" GET CN_INFOR
18,2 SAY "ADDRESS OF RESIDENCE" GET CADD_INFOR
22,2 SAY REPL(" ",72)
READ
STORE SPACE(1) TO ANSWER
24,2 SAY "PRESS (R) TO REVIEW,(A) TO ABORT SAVING OR (ANY KEY)
TO SAVE" GET ANSWER
READ
DO CASE
CASE UPPER(ANSWER) = "A"
CLEAR
EXIT
CASE UPPER(ANSWER) = "R"
@14,2 CLEAR TO 22,74
LOOP
OTHERWISE
APPEND BLANK
REPL REG_AREA WITH CREG_AREA,TOWN WITH CTOWN,LGA WITH CLGA
REPL STATE WITH CSTATE,BRV WITH CBRV,ENO WITH CENO,BCODE WITH
CCODE
```

```
REPL DOR WITH CDOR,N_CHILD WITH CN_CHILD,DOB WITH  
REPL SEX WITH CSEX,POO WITH CPOO,TOWN_OCCU WITH  
TOWN_OCCU,VCODE WITH CVCODE  
REPL TOB WITH CTOB,B_ORDER WITH CB_ORDER,N_MOTHER WITH  
N_MOTHER,ADD_MOTHER WITH CADD_MOTHER,M_AGE WITH CM_AGE  
REPL M_STATUS WITH CM_STATUS,M_NATION WITH CM_NATION,MS_ORIGIN  
WITH CMS_ORIGIN,M_L WITH CM_L,MEDU WITH CMEDU,MOCCU WITH CMOCCU  
REPL ME_ORIGIN WITH CME_ORIGIN,M_TOWN WITH CM_TOWN  
REPL N_FATHER WITH CN_FATHER,ADD_FATHER WITH CADD_FATHER,F_AGE  
WITH CF_AGE,F_NATION WITH CF_NATION,FS_ORIGIN WITH CFS_ORIGIN  
REPL FE_ORIGIN WITH CFE_ORIGIN,F_TOWN WITH CF_TOWN,F_L WITH  
CF_L,FEDU WITH CFEDU,FOCCU WITH CFOCCU  
REPL N_INFOR WITH CN_INFOR,ADD_INFOR WITH CADD_INFOR,INFOR_RTC  
WITH CINFOR_RTC  
ENDCASE  
EXIT  
ENDDO  
CLEAR  
EXIT  
ENDDO  
STORE " " TO ANSWER  
@2,4 SAY "PRESS (ANY KEY) TO ADD MORE RECORDS "  
@3,10 SAY "OR (R) TO RETURN"  
@4,25 SAY " " GET ANSWER  
READ  
IF UPPER(ANSWER) = "R"  
RETURN  
ELSE  
CLEAR  
LOOP  
ENDDO  
CLEAR  
@18,2 SAY "YOU HAVE ADDED " + LTRIM(STR(RECNO() - START,3)) +  
"RECORDS"  
RETURN
```

```

SET TALK OFF
SET COLOR TO W/+B,W/N,G
SET STATUS OFF
USE MBIRTH
DO WHILE .T.
GO TOP
STORE " " TO ANSWER
STORE SPACE(19) TO CODE
@4,2 TO 8,70 DOUBLE
@6,4 SAY "ENTER BIRTH REG. CODE TO EDIT:" GET CODE PICT
"99/99/999/999/99999"
READ
CLEAR
DO WHILE .NOT. EOF()
LOCATE FOR BCODE = CODE
IF FOUND()
MO=RECNO()
DO SEARBIRTH
@1,2 TO 8,75 DOUBLE
@3,4 SAY "REG AREA:" GET REG_AREA
@3,45 SAY "TOWN:" GET TOWN
@5,20 SAY "LGA:" GET LGA
@5,45 SAY "REG.DATE:" GET DOR PICT " / / "
@7,5 SAY "STATE:" GET STATE
@7,35 SAY "REG. CODE:" GET CODE
@9,2 TO 22,75 DOUBLE
@10,25 SAY "PARTICULARS OF CHILD"
@11,25 SAY REPL("-",20)
@13,4 SAY "NAME OF CHILD:" GET N_CHILD
@15,4 SAY "BIRTH DATE:" GET DOB PICT " / / "
@15,25 SAY "SEX:" GET SEX
@15,35 SAY "PLACE OF OCCU:" GET POO
@17,4 SAY "OCCU TOWN:" GET TOWN_OCCU
@17,32 SAY "BIRTH TYPE:" GET TOB
@17,54 SAY "ORDER:" GET B_ORDER
READ
@23,15 SAY "Press any key to continue editing this record.."
READ
@10,4 CLEAR TO 17,74
@23,2 SAY SPACE(70)
@10,25 SAY "PARTICULARS OF MOTHER"
@11,25 SAY REPL("-",21)
@13,4 SAY "NAME OF MOTHER:" GET N_MOTHER
@15,4 SAY "ADDRESS:" GET ADD_MOTHER
@17,4 SAY "AGE AT BIRTH:" GET M_AGE
@17,25 SAY "M/STATUS:" GET M_STATUS
@17,50 SAY "NATIONALITY:" GET M_NATION
@19,4 SAY "STATE ORIGIN:" GET MS_ORIGIN
@19,30 SAY "ETHNIC:" GET ME_ORIGIN
@19,54 SAY "TOWN:" GET M_TOWN
@21,4 SAY "LITERACY:" GET M_L
@21,18 SAY "EDU.LEVEL:" GET MEDU
@21,42 SAY "OCCU:" GET MOCCU
READ
@23,15 SAY "Press any key to continue editing this record.."
READ
@10,4 SAY REPL(" ",70)
@13,4 CLEAR TO 21,74
@23,2 SAY SPACE(70)
@10,25 SAY "PARTICULARS OF FATHER"
@13,4 SAY "NAME:" GET N_FATHER
@15,4 SAY " ADDRESS:" GET ADD_FATHER
@17,4 SAY "AGE:" GET F_AGE
@17,14 SAY "NATIONALITY:" GET F_NATION
@19,4 SAY "STATE:" GET FS_ORIGIN

```

```
@19,22 SAY "ETHNIC:" GET FE_ORIGIN
@19,50 SAY "TOWN:" GET F_TOWN
@21,4 SAY "LITERACY" GET F_L
@21,18 SAY "EDU.LEVEL:" GET FEDU
@21,45 SAY "OCCUPATION:" GET FOCCU
READ
@23,15 SAY "Press any key to continue editing this record..."
READ
@10,4 CLEAR TO 21,74
@23,2 SAY SPACE(70)
@10,25 SAY "PARTICULARS OF INFORMAT"
@11,25 SAY REPL( "-",23)
@13,4 SAY "RELAT.TO CHILD:" GET INFOR_RTC
@15,4 SAY "NAME:" GET N_INFOR
@17,4 SAY "ADDRESS:" GET ADD_INFOR
@23,15 SAY "End of data for this record please..."
READ
CLEAR
EXIT
ELSE
@6,4 TO 10,25 DOUBLE
@8,7 SAY "RECORD NOT FOUND"
@11,2 SAY " "
WAIT
ENDIF
CLEAR
ENDDO
@17,15 SAY "MORE RECORDS TO EDIT (Y/N)?"
@19,7 SAY "PRESS (ANY) KEY TO EDIT MORE RECORDS OR (N) FOR NO"
@21,26 SAY " " GET ANSWER
READ
IF UPPER(ANSWER) = "N"
EXIT
ELSE
CLEAR
LOOP
ENDIF
ENDDO
CLEAR
RETURN
```

SECI-PRG

```
      SET TALK OFF
SET STATUS OFF
CLEAR
B = 0
DO WHILE .T.
  STORE 0 TO SEC
  B = B + 1
  IF B = 3
    CLEA
    RETURN
  ENDIF
  @8,10 SAY "ENTER YOUR PASSWORD PLEASE !"GET SEC PICT "9999"
  READ
  IF SEC = 1234
    CLEA
    RETU
  ELSE
    @12,5 SAY "WRONG PASSWORD PLEASE!,YOU CAN TRY AGAIN"
    @14,6 SAY "Press any key to continue.."
  READ
  @12,5 CLEA TO 14,60
  LOOP
ENDIF
ENDDO
```

SEC2.PRG

SET TALK OFF  
SET STATUS OFF  
CLEAR

B = 0

DO WHILE .T.

STORE 0 TO SEC

B = B + 1

IF B = 3

CLEA

RETURN

ENDIF

@8,10 SAY "ENTER YOUR PASSWORD PLEASE !"GET SEC PICT "9999"

READ

IF SEC = 2345

CLEA

RETI

ELSE

@12,5 SAY "WRONG PASSWORD PLEASE!,YOU CAN TRY AGAIN"

@14,6 SAY "Press any key to continue.."

READ

@12,5 CLEA TO 14,60

LOOP

ENDIF

ENDDO

```
      SET TALK OFF
SET STATUS OFF
CLEAR
B = 0
DO WHILE .T.
STORE 0 TO SEC
B = B + 1
IF B= 3
CLEA
RETURN
ENDIF
@8,10 SAY "ENTER YOUR PASSWORD PLEASE !"GET SEC PICT "9999"
READ
IF SEC = 3456
CLEA
RETU
ELSE
@12,5 SAY "WRONG PASSWORD PLEASE!,YOU CAN TRY AGAIN"
@14,6 SAY "Press any key to continue.."
READ
@12,5 CLEA TO 14,60
LOOP
ENDIF
ENDDO
```

000L-PRG

```
SET TALK OFF
SET STATUS OFF
SET COLOR TO GR, RB, B
A = 1
DO WHILE A <= 23
@A, 1 SAY REPL(" ", 78)
A = A+1
ENDDO
SET COLOR TO G/BG
B = 21
DO WHILE B >= 3
@B, 4 SAY REPL(" ", 73)
B = B-1
ENDDO
SET COLOR TO W/RB, W/N
C = 6
DO WHILE C <= 20
@C, 7 SAY REPL(" ", 67)
C = C+1
ENDDO
```

```

      SET TALK OFF
SET STAT OFF
CLEA
STORE " " TO BA
@4,10 TO 12,70
@6,12 SAY "THIS ROUTINE COMPUTES AND UPDATES MONTHLY BIRTHS FOR
TOWNS"
@8,23 SAY "PRESS ANY KEY TO EXECUTE THIS ROUTINE "
@10,25 SAY "OR (R) TO RETURN TO CALLING MENU" GET BA
READ
IF UPPER(BA) = "R"
CLEA
RETU
ENDIF
CLEA
STORE 0 TO MYEAR
@5,2 TO 9, 70 DOUBLE
@6,4 SAY "ENTER THE YEAR YOU WANT TO COMPUTE AND UPDATE"
@7,20 SAY " " GET MYEAR PICT "9999"
READ
SELE A
USE TOWNS
INDEX ON TCODE TO SORTA
SELE B
USE MBIRTH
INDEX ON LGA+VCODE+TOWN+DTOC(DOB) TO SMBIRTH
SELE C
USE SUMBIRTH
SELE E
USE MSUMBIRTH
SELE F
USE MONTH
SELE D
USE BIRTH
INDEX ON LGA+VCODE+TOWN+DTOC(DOB) TO SBIRTH
SELE B
APPE FROM BIRTH
SELE F
GO TOP
DO WHILE .NOT. EOF()
MMONTH = MONTH
SELE A
GO TOP
DO WHILE .NOT. EOF()
CODE = TCODE
MSTATE = STATE
MLGA = LGA
MTOWN = TOWN
SELE B
GO TOP
LOCA FOR MONTH(DOB) = MMONTH .AND. YEAR(DOB) =MYEAR .AND.
VCODE = CODE
IF FOUND()
COUNT FOR VCODE = CODE TO CTOTAL
COUNT FOR SEX= 1 .AND. VCODE = CODE TO CMALE
COUNT FOR SEX = 2 .AND. VCODE = CODE TO CFEMA
COUNT FOR TOB = 1 .AND. VCODE = CODE TO CSING
COUNT FOR TOB = 2 .AND. VCODE = CODE TO CMULT
COUNT FOR P00 = 1 .AND. VCODE = CODE TO CHOS
COUNT FOR P00 = 4 .AND. VCODE = CODE TO CTRADOC
COUNT FOR P00 = 3 .AND. VCODE = CODE TO CHOME
COUNT FOR P00 = 2 .AND. VCODE = CODE TO CMAT
COUNT FOR P00 = 5 .AND. VCODE = CODE TO CBOTHERS
COUNT FOR M_STATUS = 1 .AND. VCODE = CODE TO CMA
COUNT FOR M_STATUS = 2 .AND. VCODE = CODE TO CNMA

```

COUNT FOR M\_STATUS = 3 .AND. VCODE = CODE TO CWID  
 COUNT FOR M\_STATUS = 4 .AND. VCODE = CODE TO CDIV  
 COUNT FOR M\_STATUS = 5 .AND. VCODE = CODE TO CSEP  
 COUNT FOR B\_ORDER = 01 .AND. VCODE = CODE TO CBO\_1  
 COUNT FOR B\_ORDER = 02 .AND. VCODE = CODE TO CBO\_2  
 COUNT FOR B\_ORDER = 03 .AND. VCODE = CODE TO CBO\_3  
 COUNT FOR B\_ORDER = 04 .AND. VCODE = CODE TO CBO\_4  
 COUNT FOR B\_ORDER = 05 .AND. VCODE = CODE TO CBO\_5  
 COUNT FOR B\_ORDER = 06 .AND. VCODE = CODE TO CBO\_6  
 COUNT FOR B\_ORDER = 07 .AND. VCODE = CODE TO CBO\_7  
 COUNT FOR B\_ORDER = 08 .AND. VCODE = CODE TO CBO\_8  
 COUNT FOR B\_ORDER = 09 .AND. VCODE = CODE TO CBO\_9  
 COUNT FOR B\_ORDER >=10 .AND. VCODE = CODE TO CBO\_09  
 COUNT FOR M\_AGE < 15 .AND. VCODE = CODE TO CUN15  
 COUNT FOR M\_AGE >=15 .AND. M\_AGE <=19 .AND. VCODE = CODE TO  
 CA15\_19  
 COUNT FOR M\_AGE >=20 .AND. M\_AGE <25 .AND. VCODE = CODE TO CA20\_24  
 COUNT FOR M\_AGE >=25 .AND. M\_AGE <30 .AND. VCODE = CODE TO CA25\_29  
 COUNT FOR M\_AGE >=30 .AND. M\_AGE <35 .AND. VCODE = CODE TO CA30\_34  
 COUNT FOR M\_AGE >=35 .AND. M\_AGE <39 .AND. VCODE = CODE TO CA35\_39  
 COUNT FOR M\_AGE >=40 .AND. M\_AGE <44 .AND. VCODE = CODE TO CA40\_44  
 COUNT FOR M\_AGE >=44 .AND. M\_AGE <49 .AND. VCODE = CODE TO CA45\_49  
 COUNT FOR M\_AGE >=50 .AND. VCODE = CODE TO CA050  
 COUNT FOR MEDU = 1 .AND. VCODE = CODE TO CMEI  
 COUNT FOR MEDU = 2 .AND. VCODE = CODE TO CMEPR  
 COUNT FOR MEDU = 3 .AND. VCODE = CODE TO CMES  
 COUNT FOR MEDU = 4 .AND. VCODE = CODE TO CMEPO  
 COUNT FOR MEDU = 5 .AND. VCODE = CODE TO CMEUN  
 COUNT FOR MEDU = 6 .AND. VCODE = CODE TO CMENO  
 COUNT FOR FEDU = 1 .AND. VCODE = CODE TO CFEI  
 COUNT FOR FEDU = 2 .AND. VCODE = CODE TO CFEP  
 COUNT FOR FEDU = 3 .AND. VCODE = CODE TO CFES  
 COUNT FOR FEDU = 4 .AND. VCODE = CODE TO CFEP  
 COUNT FOR FEDU = 5 .AND. VCODE = CODE TO CFEP  
 COUNT FOR FEDU = 6 .AND. VCODE = CODE TO CFENO

SELE C

APPE BLAN

REPL TCODE WITH CODE, STATE WITH MSTATE, LGA WITH MLGA, TOWN WITH  
 MTOWN

REPL MONTH WITH MMONTH, YEAR WITH MYEAR, MTOTAL WITH CTOTAL

REPL MALE WITH CMALE, FEMA WITH CFEMA, SING WITH CSING, MULT WITH  
 CMULT, UN15 WITH CUN15

REPL HOS WITH CHOS, TRADOC WITH CTRADOC, BOTHERS WITH CBOTHERS

REPL MA WITH CMA, NMA WITH CNMA, WID WITH CWID, DIV WITH CDIV, SEP  
 WITH CSEP

REPL MAT WITH CMAT, HOME WITH CHOME

REPL BO\_1 WITH CBO\_1, BO\_2 WITH CBO\_2, BO\_3 WITH CBO\_3, BO\_4 WITH  
 CBO\_4, BO\_5 WITH CBO\_5

REPL BO\_6 WITH CBO\_6, BO\_7 WITH CBO\_7, BO\_8 WITH CBO\_8, BO\_9 WITH  
 CBO\_9, BO\_09 WITH CBO\_09

REPL A15\_19 WITH CA15\_19, A20\_24 WITH CA20\_24, A25\_29 WITH  
 CA25\_29, A30\_34 WITH CA30\_34, A35\_39 WITH CA35\_39

REPL A40\_44 WITH CA40\_44, A45\_49 WITH CA45\_49, A050 WITH CA050, MEI  
 WITH CMEI, MEPR WITH CMEPR

REPL MES WITH CMES, MEPO WITH CMEPO, MEUN WITH CMEUN, MENO WITH  
 CMENO, FEI WITH CFEI

REPL FEPR WITH MFEPR, FES WITH CFES, FEPO WITH CFEP, FEUN WITH  
 CFEUN, FENO WITH CFENO

SELE E

LOCA FOR TCODE = CODE .AND. MONTH = MMONTH .AND. YEAR = MYEAR

IF .NOT. FOUND()

APPE BLAN

REPL TCODE WITH CODE, STATE WITH MSTATE, LGA WITH MLGA, TOWN WITH  
 MTOWN

REPL MONTH WITH MMONTH, YEAR WITH MYEAR

```
ENDIF
ENDIF
SELE A
SKIP
LOOP
ENDDO
DO PSEMBIRTH
SELE D
DELE ALL
PACK
SELE C
DELE ALL
PACK
CLEAR
@10,2 TO 16,70 DOUBLE
@12,4 SAY "COMPUTING AND MONTHLY UPDATING OF BIRTHS COMPLETED PLEASE
@14,4 SAY "PRESS ANY KEY TO RETURN TO CALLING MENU"
READ
CLEAR
CLOSE DATABASES
RETU
```

```
SET TALK OFF
SET STATUS OFF
MO = 0
COUNT FOR BCODE = CODE TO BE
IF BE>1
@3,4 TO 7,60 DOUBLE
@4,6 SAY "THERE ARE"+ STR(BE,2)+" " +"RECORDS WITH THIS CODE"
@6,12 SAY "SOME INFOR. FOR THIS RECORDS ARE"
@8,2 SAY " "
WAIT
CLEAR
LIST FIELDS N_CHILD,REG_AREA,TOWN,LGA FOR BCODE = CODE
@20,22 SAY "ENTER THE APPROPRIATE NO NEEDED"
@22,25 SAY " " GET MO PICT "99999999"
READ
ENDIF
CLEAR
GO MO
RETURN
```

```
SET TALK OFF
SET STATUS OFF
SET SCOREBOARD OFF
PUBLIC B
B = 0
DO OCOL
DO WHILE .T.
STORE 0 TO NO
@7,18 CLEAR TO 19,55
@4,22 SAY "BIRTH UPDATE'S SUBMENU"
@7,5 SAY "1"
@7,18 SAY "PERFORM COMPUTATION & TOWN'S MONTHLY UPDATE"
@9,5 SAY "2"
@9,18 SAY "PERFORM TOWN'S YEARLY UPDATE"
@11,5 SAY "3"
@11,18 SAY "PERFORM LGA'S MONTHLY UPDATE"
@13,5 SAY "4"
@13,18 SAY "PERFORM LGA'S YEARLY UPDATE"
@15,5 SAY "5"
@15,18 SAY "PERFORM STATE'S MONTHLY UPDATE"
@17,5 SAY "6"
@17,18 SAY "PERFORM STATE'S YEARLY UPDATE"
@19,5 SAY "9"
@19,18 SAY "RETURN TO BIRTH SUBMENU"
@22,22 SAY "SELECT YOUR CHOICE FROM 1 - 9" GET NO PICT "9"
READ
DO CASE
CASE NO = 1
DO SUBBIRTH
CASE NO = 2
DO YSUBBIRTH
CASE NO = 3
DO MLSUBBIRTH
CASE NO = 4
DO YLSUBBIRTH
CASE NO = 5
DO MSSUBBIRTH
CASE NO = 6
DO YSSUBBIRTH
CASE NO = 9
CLEAR
RETURN
OTHERWISE
LOOP
ENDCASE
ENDDO
```

```

SET TALK OFF
SET STATUS OFF
SET SAFETY OFF
STORE " " TO PRO
@3,1 TO 13,70 DOUBLE
@5,13 SAY "THIS ROUTINE UPDATES THE YEARLY BIRTH OF A PARTICULAR"
@7,22 SAY "YEAR FOR VARIOUS TOWNS"
@9,22 SAY "PRESS ANY KEY TO UPDATE THE RECORDS"
@11,22 SAY "OR (R) TO RETURN TO CALLING MENU" GET PRO
READ
IF UPPER(PRO) = "R"
CLEAR
RETURN
ENDIF
STORE 0 TO MYEAR
SELECT A
USE TOWNS
INDEX ON TCODE TO YTSUM
SELECT B
USE MSUMBIRT
INDEX ON TCODE TO YMSUM
SELECT C
USE YSUMBIRT
INDEX ON TCODE TO YSUM
@10,2 TO 14,70 DOUBLE
@11,4 SAY "ENTER THE YEAR YOU WANT TO UPDATE PLEASE"
@12,20 SAY " " GET MYEAR PICT "9999"
READ
SELECT A
GO TOP
DO WHILE .NOT. EOF()
CODE = TCODE
MSTATE = STATE
MLGA = LGA
MTOWN = TOWN
SELECT B
LOCATE FOR TCODE = CODE .AND. YEAR = MYEAR
IF FOUND()
SUM
YTOTAL,MALE,FEMA,SING FOR YEAR = MYEAR .AND. TCODE = CODE TO
CTOTAL,CMALE,CFEMA,CSING
SUM MULT,UN15,HOS FOR YEAR = MYEAR .AND. TCODE = CODE
TO CMULT,CUN15,CHOS
SUM HOME,MAT FOR YEAR = MYEAR .AND. TCODE = CODE TO CHOME,CMAT
SUM TRADOC,BOTHERS,MA,NMA, FOR YEAR = MYEAR .AND. TCODE = CODE
TO CTRADOC,CBOTHERS,CMA,CNMA
SUM WID,DIV,SEP FOR YEAR = MYEAR .AND. TCODE = CODE TO
CWID,CDIV,CSEP
SUM BO_1,BO_2,BO_3,BO_4,BO_5 FOR YEAR = MYEAR .AND. TCODE = CODE
TO CBO_1,CBO_2,CBO_3,CBO_4,CBO_5
SUM BO_6,BO_7,BO_8,BO_9,BO_09 FOR YEAR = MYEAR .AND. TCODE = CODE
TO CBO_6,CBO_7,CBO_8,CBO_9,CB_09
SUM A15_19,A20_24,A25_29,A30_34,A35_39 FOR YEAR = MYEAR .AND.
TCODE = CODE TO CA15_19,CA20_24,CA25_29,CA30_34,CA35_39
SUM A40_44,A45_49,A050,MEI,MEPR FOR YEAR = MYEAR .AND. TCODE =
CODE TO CA40_44,CA45_49,CA050,CMEI,CMEPR
SUM MES,MEPO,MEUN,MENO,FEI FOR YEAR = MYEAR .AND. TCODE = CODE TO
CMES,CMEPO,CMEUN,CMENO,CFEI
SUM FEPR,FES,FEPO,FEUN,FENO FOR YEAR = YEAR .AND. TCODE = CODE TO
CFEPR,CFES,CFEPO,CFEUN,CFENO
SELECT C
LOCATE FOR TCODE = CODE
IF .NOT. FOUND()
APPEND BLANK
REPL TCODE WITH CODE, YEAR WITH MYEAR, TOWN WITH MTOWN, LGA WITH

```

MLGA, STATE WITH MSTATE

ENDIF

REPL YTOTAL WITH CTOTAL, MALE WITH

MALE, FEMA WITH FEMA, SING WITH CSING

REPL MULT WITH CMULT, UN15 WITH CUN15, HOS WITH CHOS

WITH CBOTHERS, MA WITH CMA,

REPL NMA WITH CNMA, WID WITH CWID, DIV WITH CDIV, SEP WITH CSEP

REPL BO\_1 WITH CBO\_1, BO\_2 WITH CBO\_2, BO\_3 WITH CBO\_3, BO\_4 WITH

CBO\_4, BO\_5 WITH CBO\_5

REPL BO\_6 WITH CBO\_6, BO\_7 WITH CBO\_7, BO\_8 WITH CBO\_8, BO\_9 WITH

CBO\_9, BO\_09 WITH CBO\_09

REPL A15\_19 WITH CA15\_19, A20\_24 WITH CA20\_24, A25\_29 WITH

CA25\_29, A30\_34 WITH CA30\_34, A35\_39 WITH CA35\_39

REPL A40\_44 WITH CA40\_44, A45\_49 WITH CA45\_49, A050 WITH CA050, MEI

WITH CMEI, MEPR WITH CMEPR

REPL MES WITH CMES, MEPO WITH CMEPO, MEUN WITH CMEUN, MENO WITH

CMENO, FEI WITH CFEI

REPL FEPR WITH CFEPR, FES WITH CFES, FEPO WITH CFEPO, FEUN WITH

CFEUN, FENO WITH CFENO

ENDIF

SELECT A

SKIP

LOOP

ENDDO

CLEAR

@4,4 TO 10,70

@6,6 SAY "YEARLY UPDATING OF TOWNS' BIRTHS SUMMARY COMPLETED

PLEASE"

@8,6 SAY "PRESS ANY KEY TO RETURN TO CALLING MENU"

READ

CLEAR

CLOSE DATABASES

RETURN

MLSUBIRTH.PRG

```
SET TALK OFF
SET STATUS OFF
SET SAFETY OFF
STORE 0 TO MYEAR
STORE " " TO PRO
@2,4 TO 12,65 DOUBLE
@4,6 SAY "THIS ROUTINE DO THE UPDATING OF LOCAL GOVT.MONTHLY
BIRTHS"
@6,12 SAY "FOR A PARTICULAR YEAR OF INTEREST"
@8,10 SAY "PRESS ANY KEY TO DO THE UPDATE"
@10,10 SAY "OR (R) TO RETURN TO CALLING MENU" GET PRO
READ
IF UPPER(PRO) = "R"
CLEAR
RETURN
ENDIF
CLEAR
@5,10 SAY "ENTER THE YEAR OF INTEREST:" GET MYEAR PICT "9999"
READ
CLEAR
SELECT A
USE LGA
INDEX ON LGAC TO LSORT
SELECT B
USE MSUMBIRTH
SELECT C
USE MLSUBIRTH
INDEX ON LGAC TO MLMSORT
SELECT D
USE MONTH
GO TOP
DO WHILE .NOT. EOF()
MMONTH = MONTH
SELECT A
GO TOP
DO WHILE .NOT. EOF()
MLGAC = LGAC
MLGA = LGA
MSTATE = STATE
SELECT B
LOCATE FOR SUBSTR(TCODE,1,5) = MLGAC .AND. MONTH = MMONTH
.AND. YEAR = MYEAR
IF FOUND()
SUM MTOTAL,MALE,FEMA,SING FOR SUBSTR(TCODE,1,5) = MLGAC .AND.
MONTH = MMONTH .AND. YEAR = MYEAR TO CTOTAL,CMALE,CFEMA,CSING
SUM MULT,UN15,HOS FOR SUBSTR(TCODE,1,5) = MLGAC .AND.
MONTH = MMONTH .AND. YEAR = MYEAR TO CMULT,CUN15,CHOS
SUM TRADOC,MAT,HOME,BOTHERS,MA FOR SUBSTR(TCODE,1,5) = MLGAC .AND.
MONTH = MMONTH .AND. YEAR = MYEAR TO CTRADOC,CMAT,CHOME,CBOTHERS,CMA
SUM NMA,WID,DIV,SEP FOR SUBSTR(TCODE,1,5) = MLGAC .AND. MONTH = MMONTH
.AND. YEAR = MYEAR TO CNMA,CWID,CDIV,CSEP
SUM BO_1,BO_2,BO_3,BO_4,BO_5 FOR SUBSTR(TCODE,1,5) = MLGAC .AND.
MONTH = MMONTH .AND. YEAR = MYEAR TO CBO_1,CBO_2,CBO_3,CBO_4,CBO_5
SUM BO_6,BO_7,BO_8,BO_9,BO_09 FOR SUBSTR(TCODE,1,5) = MLGAC .AND.
MONTH = MMONTH .AND. YEAR = MYEAR TO CBO_6,CBO_7,CBO_8,CBO_9,CBO_09
SUM A15_19,A20_24,A25_29,A30_34,A35_39 FOR SUBSTR(TCODE,1,5) =
MLGAC .AND. MONTH = MMONTH .AND. YEAR = MYEAR TO
CA15_19,CA20_24,CA25_29,CA30_34,CA35_39
SUM A40_44,A45_49 A050,MEI,MEPR FOR SUBSTR(TCODE,1,5) = MLGAC
.AND. MONTH = MMONTH .AND. YEAR = MYEAR TO
CA40_44,CA45_49,CA050,CMEI,CMEPR
SUM MES,MEPO,MEUN,MENO,FEI FOR SUBSTR(TCODE,1,5) = MLGAC .AND.
MONTH = MMONTH .AND. YEAR = MYEAR TO CMES,CMEPO,CMEUN,CMENO,CFEI
SUM FEPR,FES,FEPO,FEUN,FENO FOR SUBSTR(TCODE,1,5) = MLGAC .AND.
MONTH = MMONTH .AND. YEAR = MYEAR TO CFEP,CFES,CFEPO,CFEUN,CFENO
```

```
SELECT C
LOCATE FOR LGAC = MLGAC .AND. MONTH = MMONTH .AND. YEAR = MYEAR
IF .NOT. FOUND()
APPEND BLANK
REPL LGAC WITH MLGAC,LGA WITH MLGA,MONTH WITH MMONTH,YEAR WITH
MYEAR,STATE WITH MSTATE
ENDIF
REPL MTOTAL WITH CTOTAL,MALE WITH CMALE,FEMA WITH CFEMA,
SING WITH CSING
REPL MULT WITH CMULT,UN15 WITH CUN15,HOS WITH CHOS
REPL TRADOC WITH CTRADOC,MAT WITH CMAT,HOME WITH CHOME,BOTHERS
WITH CBOTHERS,MA WITH CMA
REPL NMA WITH CNMA,WID WITH CWID,DIV WITH CDIV,SEP WITH CSEP
REPL BO_1 WITH CBO_1,BO_2 WITH CBO_2,BO_3 WITH CBO_3,BO_4 WITH
CBO_4,BO_5 WITH CBO_5
REPL BO_6 WITH CBO_6,BO_7 WITH CBO_7,BO-8 WITH CBO_8,BO_9 WITH
CBO_9,BO_09 WITH CBO_09
REPL A15_19 WITH CA15_19,A20_24 WITH CA20_24,A25_29 WITH
CA25_29,A30_34 WITH CA30_34,A35_39 WITH CA35_39
REPL A40_44 WITH CA40_44,45_49 WITH CA45_49,A050 WITH CA050,MEI
WITH CMEI,MEPR WITH CMEPR
REPL MES WITH CMES,MEPO WITH CMEPO,MEUN WITH CMEUN,MENO WITH
CMENO,FEI WITH CFEI
REPL FEPR WITH CFEPFR,FES WITH CFES,FEPO WITH CFEPO,FEUN WITH
CFEUN,FENO WITH CFENO
ENDIF
SELECT A
SKIP
LOOP
ENDDO
SELECT D
SKIP
LOOP
ENDDO
CLEAR
@2,3 TO 8,60 DOUBLE
@4,5 SAY "UPDATING OF MONTHLY LOCAL GOVT. BIRTHS COMPLETED PLEASE"
@6,5 SAY "PRESS ANY KEY TO RETURN TO CALLING MENU"
READ
CLEAR
CLOSE DATABASES
RETURN
```

```

SET TALK OFF
SET STATUS OFF
SET SAFETY OFF
STORE 0 TO MYEAR
STORE " " TO PRO
@2,4 TO 12,65 DOUBLE
@4,6 SAY "THIS ROUTINE DO THE UPDATING OF LOCAL GOVT. YEARLY
BIRTHS"
@6,12 SAY "FOR A PARTICULAR YEAR OF INTEREST"
@8,10 SAY "PRESS ANY KEY TO DO THE UPDATE"
@10,10 SAY " OR (R) TO RETURN TO CALIING MENU" GET PRO
READ
IF UPPER(PRO) = "R"
CLEAR
RETURN
ENDIF
CLEAR
@5,10 SAY "ENTER THE YEAR OF INTEREST:" GET MYEAR PICT "9999"
READ
CLEAR
SELECT A
USE LGA
INDEX ON LGAC TO LSORT
SELECT B
USE MLSUBIRTH
SELECT C
USE YLSUBIRTH
INDEX ON LGAC TO YLBSORT
SELECT A
GO TOP
DO WHILE .NOT. EOF()
MLGAC = LGAC
MLGA = LGA
MSTATE = STATE
SELECT B
LOCATE FOR LGAC = MLGAC .AND. YEAR = MYEAR
IF FOUND()
SUM MTOTAL,MALE,FEMA,SING FOR LGAC = MLGAC .AND.
YEAR = MYEAR TO CTOTAL,CMALE,CFEMA,CSING
SUM MULT,UN15,HOS FOR LGAC = MLGAC .AND. YEAR =
MYEAR TO CMULT,CUN15,CHOS
SUM TRADOC,MAT,HOME,BOTHERS,MA FOR LGAC = MLGAC .AND.
YEAR = MYEAR TO CTRADOC,CMAT,CHOME,CBOTHERS,CMA
SUM NMA,WID,DIV,SEP FOR LGAC = MLGAC .AND. YEAR = MYEAR TO
CNMA,CWID,CDIV,CSEP
SUM BO_1,BO_2,BO_3,BO_4,BO_5 FOR LGAC = MLGAC .AND. YEAR = MYEAR
TO CBO_1,CBO_2,CBO_3,CBO_4,CBO_5
SUM BO_6,BO_7,BO_8,BO_9,BO_09 FOR LGAC = MLGAC .AND. YEAR = MYEAR
TO CBO_6,CBO_7,CBO_8,CBO_9,CBO_09
SUM A15_19,A20_24,A25_29,A30_34,A35_39 FOR LGAC = MLGAC .AND.
YEAR = MYEAR TO CA15_19,CA20_24,CA25_29,CA30_34,CA35_39
SUM A40_44,A45_49,A050,MEI,MEPR FOR LGAC = MLGAC .AND. YEAR =
MYEAR TO CA40_44,CA44_49,CA050,CMEI,CMEPR
SUM MES,MEPO,MEUN,MENO,FEI FOR LGAC = MLGAC TO
CMES,CMEPO,CMEUN,CMENO,CFEI
SUM FEPR,FES,FEPO,FEUN,FENO FOR LGAC = MLGAC .AND. YEAR = MYEAR
TO CFEP,CFES,CFEPO,CFEUN,CFENO
SELECT C
LOCATE FOR LGAC = MLGAC .AND. YEAR = MYEAR
IF .NOT. FOUND()
APPEND BLANK
REPL LGAC WITH MLGAC,LGA WITH MLGA,YEAR WITH
MYEAR,STATE WITH MSTATE
ENDIF

```

```
REPL YTOTAL WITH CTOTAL,MALE WITH CMALE,FEMA WITH CFEMA
SING WITH CSING
REPL MULT WITH CMULT,UN15 WITH CUN15,HOS WITH CHOS
REPL TRADOC WITH CTRADOC,MAT WITH CMAT,HOME WITH CHOME,BOTHERS
WITH CBOTHERS,MA WITH CMA
REPL NMA WITH CNMA,WID WITH CWID,DIV WITH CDIV,SEP WITH CSEP
BO_1 WITH CBO_1,BO_2 WITH CBO_2,BO_3 WITH CBO_3,BO_4 WITH
CBO_4,BO_5 WITH CBO_5
REPL BO_6 WITH CBO_6,BO_7 WITH CBO_7,BO_8 WITH CBO_8,BO_9WITH
CBO_9,BO_09 WITH CBO_09
REPL A15_19 WITH CA15_19,A20_24 WITH CA20_24,A25_29 WITH
CA25_29,A30_34 WITH CA30_34,A35_39 WITH CA35_39
REPL A40_44 WITH CA40_44,A45_49 WITH CA45_49,A050 WITH CA050,MEI
WITH CMEI,MEPR WITH CMEPR
REPL MES WITH CMES,MEPO WITH CMEPO,MEUN WITH CMEUN,MENO WITH
CMENO,FEI WITH CFEI
REPL FEPR WITH CFEPR,FES WITH CFES,FEPO WITH CFEPO,FEUN WITH
CFEUN,FENO WITH CFENO
ENDIF
SELECT A
SKIP
LOOP
ENDDO
CLEAR
@2,3 TO 8,60 DOUBLE
@4,5 SAY "UPDATING OF MONTHLY LOCAL GOVT. BIRTHS COMPLETED PLEASE"
@6,5 SAY "PRESS ANY KEY TO RETURN TO THE CALLING MENU"
READ
CLEAR
CLOSE DATABASES
RETURN
```

```

      SET TALK OFF
SET STATUS OFF
SET SAFETY OFF
STORE 0 TO MYEAR
STORE " " TO PRO
@2,4 TO 12,65 DOUBLE
@4,6 SAY "THIS ROUTINE DO THE UPDATING OF STATE GOVT.MONTHLY
BIRTHS"
@6,12 SAY "FOR A PARTICULAR YEAR OF INTEREST"
@8,10 SAY "PRESS ANY KEY TO DO THE UPDATE"
@10,10 SAY "OR (R) TO RETURN TO CALLING MENU" GET PRO
READ
IF UPPER(PRO) = "R"
CLEAR
RETURN
ENDIF
CLEAR
@5,10 SAY "ENTER THE YEAR OF INTEREST:" GET MYEAR PICT "9999"
READ
CLEAR
SELECT B
USE MLSUBIRTH
SELECT C
USE MSSUBIRTH
SELECT D
USE MONTH
GO TOP
DO WHILE .NOT. EOF()
MMONTH = MONTH
SELECT B
MSTATE = STATE
LOCATE FOR MONTH = MMONTH .AND. YEAR = MYEAR
IF FOUND()
SUM MTOTAL,MALE,FEMA,SING FOR MONTH = MMONTH .AND. YEAR = MYEAR
TO CTOTAL,CMALE,CFEMA,CSING
SUM MULT,UN15,HOS FOR MONTH = MMONTH .AND. YEAR = MYEAR TO
CMULT,CUN15,CHOS
SUM TRADOC,MAT,HOME,BOTHERS,MA FOR MONTH = MMONTH .AND. YEAR = MYE
TO CTRADOC,CMAT,CHOME,CBOTHERS,CMA
SUM NMA,WID,DIV,SEP FOR MONTH = MMONTH .AND. YEAR = MYEAR TO
CNMA,CWID,CDIV,CSEP
SUM BO_1,BO_2,BO_3,BO_4,BO_5 FOR MONTH = MMONTH .AND. YEAR = MYEAR
CBO_1,CBO_2,CBO_3,CBO_4,CBO_5
SUM BO_6,BO_7,BO_8,BO_9,BO_09 FOR MONTH = MMONTH .AND. YEAR = MYEA
CBO_6,CBO_7,CBO_8,CBO_9,CBO_09
SUM A15_19,A20_24,A25_29,A30_34,A35_39 FOR MONTH = MMONTH .AND. Y
= MYEAR TO CA15_19,CA20_24,CA25_29,CA30_34,CA35_39
SUM A40_44,A45_49,A050,MEI,MEPR FOR MONTH = MMONTH .AND. YEAR =
MYEAR TO CA40_44,CA45_49,CA050,CMEI,CMEPR
SUM MES,MEPO,MEUN,MENO,FEI FOR MONTH = MMONTH .AND. YEAR = MYEAR T
CMES,CMEPO,CMEUN,CMENO,CFEI
SUM FEPR,FES,FEPO,FEUN,FENO FOR MONTH = MMONTH .AND. YEAR = MYEAR
TO CFEP,CFES,CFEPO,CFEUN,CFENO
SELECT C
LOCATE FOR MONTH = MMONTH .AND. YEAR = MYEAR
IF .NOT. FOUND()
APPEND BLANK
REPL MONTH WITH MMONTH,YEAR WITH MYEAR,STATE WITH MSTATE
ENDIF
REPL MTOTAL WITH CTOTAL,MALE WITH CMALE,FEMA WITH CFEMA,
SING WITH CSING
REPL MULT WITH CMULT,UN15 WITH CUN15,HOS WITH CHOS
REPL TRADOC WITH CTRADOC,MAT WITH CMAT,HOME WITH CHOME,BOTHERS
WITH CBOTHERS,MA WITH CMA
REPL NMA WITH CNMA,WID WITH CWID,DIV WITH CDIV,SEP WITH CSEP

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```
REPL BO_1 WITH CBO_1,BO_2 WITH CBO_2,BO_3 WITH CBO_3,BO_4 WITH  
CBO_4,BO_5 WITH CBO_5  
REPL BO_6 WITH CBO_6,BO_7 WITH CBO_7,BO_8 WITH CBO_8,BO_9 WITH  
CBO_9,BO_09 WITH CBO_09  
REPL A15_19 WITH CA15_19,A20_24 WITH CA20_24,A25_29 WITH  
CA25_29,A30_34 WITH CA30_34,A35_39 WITH CA35_39  
REPL A40_44 WITH CA40_44,45_49 WITH CA45_49,A050 WITH CA050,MEI  
WITH CMEI,MEPR WITH CMEPR  
REPL MES WITH CMES,MEPO WITH CMEPO,MEUN WITH CMEUN,MENO WITH  
CMENO,FEI WITH CFEI  
REPL FEPR WITH CFEP, FES WITH CFES,FEPO WITH CFEP,FEUN WITH  
CFEUN,FENO WITH CFENO  
ENDIF  
SELECT D  
SKIP  
LOOP  
ENDDO  
CLEAR  
@2,3 TO 8,60 DOUBLE  
@4,5 SAY "UPDATING OF MONTHLY STATE GOVT. BIRTHS COMPLETED PLEASE"  
@6,5 SAY "PRESS ANY KEY TO RETURN TO CALLING MENU"  
READ  
CLEAR  
CLOSE DATABASES  
RETURN
```

```

SET TALK OFF
SET STATUS OFF
SET SAFETY OFF
STORE 0 TO MYEAR
STORE " " TO PRO
@2,4 TO 12,65 DOUBLE
@4,6 SAY "THIS ROUTINE DO THE UPDATING OF STATE GOVT.YEARLY
BIRTHS"
@6,12 SAY "FOR A PARTICULAR YEAR OF INTEREST"
@8,10 SAY "PRESS ANY KEY TO DO THE UPDATE"
@10,10 SAY "OR (R) TO RETURN TO CALLING MENU" GET PRO
READ
IF UPPER(PRO) = "R"
CLEAR
RETURN
ENDIF
CLEAR
@5,10 SAY "ENTER THE YEAR OF INTEREST:" GET MYEAR PICT "9999"
READ
CLEAR
SELECT B
USE MSSUBIRTH
SELECT C
USE YSSUBIRTH
SELECT B
MSTATE = STATE
LOCATE FOR YEAR = MYEAR
IF FOUND()
SUM MTOTAL,MALE,FEMA,SING FOR YEAR = MYEAR
TO CTOTAL,CMALE,CFEMA,CSING
SUM MULT,UN15,HOS FOR YEAR = MYEAR TO
CMULT,CUN15,CHOS
SUM TRADOC,MAT,HOME,BOTHERS,MA FOR YEAR = MYEAR
TO CTRADOC,CMAT,CHOME,CBOTHERS,CMA
SUM NMA,WID,DIV,SEP FOR YEAR = MYEAR TO
CNMA,CWID,CDIV,CSEP
SUM BO_1,BO_2,BO_3,BO_4,BO_5 FOR YEAR = MYEAR TO
CBO_1,CBO_2,CBO_3,CBO_4,CBO_5
SUM BO_6,BO_7,BO_8,BO_9,BO_09 FOR YEAR = MYEAR TO
CBO_6,CBO_7,CBO_8,CBO_9,CBO_09
SUM A15_19,A20_24,A25_29,A30_34,A35_39 FOR YEAR
= MYEAR TO CA15_19,CA20_24,CA25_29,CA30_34,CA35_39
SUM A40_44,A45_49,A050,MEI,MEPR FOR YEAR =
MYEAR TO CA40_44,CA45_49,CA050,CMEI,CMEPR
SUM MES,MEPO,MEUN,MENO,FEI FOR YEAR = MYEAR TO
CMES,CMEPO,CMEUN,CMENO,CFEI
SUM FEPR,FES,FEPO,FEUN,FENO FOR YEAR = MYEAR
TO CFEP,CFES,CFEPO,CFEUN,CFENO
SELECT C
LOCATE FOR YEAR = MYEAR
IF .NOT. FOUND()
APPEND BLANK
REPL YEAR WITH MYEAR,STATE WITH MSTATE
ENDIF
REPL MTOTAL WITH CTOTAL,MALE WITH CMALE,FEMA WITH CFEMA,
SING WITH CSING
REPL MULT WITH CMULT,UN15 WITH CUN15,HOS WITH CHOS
REPL TRADOC WITH CTRADOC,MAT WITH CMAT,HOME WITH CHOME,BOTHERS
WITH CBOTHERS,MA WITH CMA
REPL NMA WITH CNMA,WID WITH CWID,DIV WITH CDIV,SEP WITH CSEP
REPL BO_1 WITH CBO_1,BO_2 WITH CBO_2,BO_3 WITH CBO_3,BO_4 WITH
CBO_4,BO_5 WITH CBO_5
REPL BO_6 WITH CBO_6,BO_7 WITH CBO_7,BO-8 WITH CBO_8,BO_9 WITH
CBO_9,BO_09 WITH CBO_09
REPL A15_19 WITH CA15_19,A20_24 WITH CA20_24,A25_29 WITH

```

```
CA25_29,A30_34 WITH CA30_34,A35_39 WITH CA35_39
REPL A40_44 WITH CA40_44,45_49 WITH CA45_49,A050 WITH CA050,MEI
WITH CMEI,MEPR WITH CMEPR
REPL MES WITH CMES,MEPO WITH CMEPO,MEUN WITH CMEUN,MENO WITH
CMENO,FEI WITH CFEI
REPL FEPR WITH CFEP, FES WITH CFES,FEPO WITH CFEP,FEUN WITH
CFEUN,FENO WITH CFENO
ENDIF
CLEAR
@2,3 TO 8,60 DOUBLE
@4,5 SAY "UPDATING OF YEARLY STATE GOVT. BIRTHS COMPLETED PLEASE"
@6,5 SAY "PRESS ANY KEY TO RETURN TO CALLING MENU"
READ
CLEAR
CLOSE DATABASES
RETURN
```

```
7104
SET TALK OFF
SET STATUS OFF
SET SCOREBOARD OFF
USE TOWNS
CLEAR
STORE " " TO ANSWER
@2,1 TO 12,65 DOUBLE
@4,2 SAY "THIS ROUTINE WILL ALLOW YOU TO ADD MORE TOWNS TO TOWN'S
FILE"
@8,10 SAY "PRESS ANY KEY TO EXECUTE THIS ROUTINE "
@10,10 SAY "OR (N) TO RETURN TO CALLING MENU" GET ANSWER
READ
CLEAR
IF UPPER(ANSWER) ="N"
RETURN
ENDIF
DO WHILE .T.
STORE SPACE(10) TO MSTATE
STORE SPACE(15) TO MLGA,MTOWN
STORE SPACE(9) TO MTCODE
DO WHILE .T.
STORE " " TO ANSWER
@4,3 TO 14,70 DOUBLE
@6,5 SAY "ENTER THE TOWN'S CODE (STATE IST,LGA,AND TOWN):" GET
MTCODE PICT "99/99/999"
READ
LOCATE FOR TCODE = MTCODE
IF FOUND()
CLEAR
@4,5 TO 8,60
@6,10 SAY "RECORD ALREADY EXISTS PLEASE!"
READ
EXIT
ENDIF
@8,5 SAY "ENTER THE NAME OF TOWN:" GET MTOWN
@10,5 SAY "ENTER NAME OF L.G.A.:" GET MLGA
@12,5 SAY "ENTER NAME OF STATE:" GET MSTATE
READ
@22,2 SAY "PRESS (R) TO REVIEW OR (A) TO ABORT SAVING OR (ANY
KEY) TO SAVE" GET ANSWER
READ
DO CASE
CASE UPPER(ANSWER) = "R"
CLEAR
LOOP
CASE UPPER(ANSWER) = "A"
CLEAR
EXIT
OTHERWISE
APPEND BLANK
REPL TCODE WITH MTCODE,TOWN WITH MTOWN,LGA WITH MLGA,STATE WITH
MSTATE
EXIT
ENDCASE
ENDDO
STORE " " TO ANSWER
CLEAR
@4,2 TO 10,70
@6,8 SAY "PRESS (ANY KEY) TO ADD MORE RECORDS "
@8,6 SAY "OR (R) TO RETURN TO CALLING MENU" GET ANSWER
READ
CLEAR
IF UPPER(ANSWER) = "R"
EXIT
ELSE
```

LOOP  
ENDIF  
ENDDO  
CLOSE DATABASES

```
SET TALK OFF
SET STATUS OFF
SET SCOREBOARD OFF
USE TOWNS
CLEAR
STORE " " TO ANSWER
@2,1 TO 12,65 DOUBLE
@4,2 SAY "THIS ROUTINE WILL ALLOW YOU TO EDIT TOWNS RECORDS"
@8,10 SAY "PRESS ANY KEY TO EXECUTE THIS ROUTINE "
@10,10 SAY "OR (N) TO RETURN TO CALLING MENU" GET ANSWER
READ
CLEAR
IF UPPER(ANSWER) ="N"
RETURN
ENDIF
DO WHILE .T.
DO WHILE .T.
STORE SPACE(9) TO MTCODE
STORE " " TO ANSWER
@4,3 TO 8,70 DOUBLE
@6,5 SAY "ENTER THE TOWN'S CODE (STATE IST,LGA,AND TOWN):" GET
MTCODE PICT "99/99/999"
READ
GO TOP
LOCATE FOR TCODE = MTCODE
IF .NOT. FOUND()
CLEAR
@4,5 TO 10,60
@6,10 SAY "RECORD DOES NOT EXISTS PLEASE!"
@8,12 SAY "PRESS ANY KEY TO CONTINUE.."
READ
EXIT
ENDIF
STORE 0 TO BE
DO SEARTOWNS
@4,2 TO 14,40 DOUBLE
@6,5 SAY "TOWNS" CODE : " GET TCODE PICT "99/99/999"
@8,5 SAY " NAME OF TOWN:" GET TOWN
@10,5 SAY "NAME OF L.G.A.:" GET LGA
@12,5 SAY "NAME OF STATE:" GET STATE
READ
EXIT
ENDDO
@22,2 SAY "PRESS (ANY KEY) TO EDIT MORE RECORDS OR (R) TO RETURN
TO CALLING MENU" GET ANSWER
READ
CLEAR
IF UPPER(ANSWER) = "R"
EXIT
ELSE
LOOP
ENDIF
ENDDO
CLOSE DATABASES
```

```
SET TALK OFF
SET STATUS OFF
SET SCOREBOARD OFF
USE TOWNS
CLEAR
STORE " " TO ANSWER
@2,1 TO 12,65 DOUBLE
@4,2 SAY "THIS ROUTINE WILL ALLOW YOU TO VIEW TOWNS'S RECORDS"
@8,10 SAY "PRESS ANY KEY TO EXECUTE THIS ROUTINE "
@10,10 SAY "OR (N) TO RETURN TO CALLING MENU" GET ANSWER
READ
CLEAR
IF UPPER(ANSWER) ="N"
RETURN
ENDIF
DO WHILE .T.
DO WHILE .T.
STORE SPACE(9) TO MTCODE
STORE " " TO ANSWER
@4,3 TO 8,70 DOUBLE
@6,5 SAY "ENTER THE TOWN'S CODE (STATE IST,LGA,AND TOWN):" GET
MTCODE PICT "99/99/999"
READ
GO TOP
LOCATE FOR TCODE = MTCODE
IF .NOT. FOUND()
CLEAR
@4,5 TO 8,60
@6,10 SAY "RECORD DOES NOT EXISTS PLEASE!"
READ
EXIT
ENDIF
STORE 0 TO BE
DO SEARTOWNS
@4,2 TO 14,40 DOUBLE
@6,5 SAY "TOWNS' CODE : " + MTCODE
@8,5 SAY " NAME OF TOWN: " + TOWN
@10,5 SAY "NAME OF L.G.A.: " + LGA
@12,5 SAY "NAME OF STATE: " + STATE
@22,2 SAY "PRESS ANY KEY TO CONTINUE..."
READ
EXIT
ENDDO
@22,2 SAY "PRESS (ANY KEY) TO VIEW MORE RECORDS OR (R) TO RETURN
TO CALLING MENU" GET ANSWER
READ
CLEAR
IF UPPER(ANSWER) = "R"
EXIT
ELSE
LOOP
ENDIF
ENDDO
CLOSE DATABASES
```

SECRETARY - PM

```
SET TALK OFF
SET STATUS OFF
SET SCOREBOARD OFF
USE TOWNS
CLEAR
STORE " " TO ANSWER
@2,1 TO 12,65 DOUBLE
@4,2 SAY "THIS ROUTINE WILL ALLOW YOU TO DELETE TOWNS'S RECORDS"
@8,10 SAY "PRESS ANY KEY TO EXECUTE THIS ROUTINE "
@10,10 SAY "OR (N) TO RETURN TO CALLING MENU" GET ANSWER
READ
CLEAR
IF UPPER(ANSWER) ="N"
RETURN
ENDIF
DO WHILE .T.
DO WHILE .T.
STORE SPACE(9) TO MTCODE
STORE " " TO ANSWER
@4,3 TO 8,70 DOUBLE
@6,5 SAY "ENTER THE TOWN'S CODE (STATE IST,LGA,AND TOWN):" GET
MTCODE PICT "99/99/999"
READ
GO TOP
LOCATE FOR TCODE = MTCODE
IF .NOT. FOUND()
CLEAR
@4,5 TO 10,60
@6,10 SAY "RECORD DOES NOT EXISTS PLEASE!"
@8,12 SAY "PRESS ANY KEY TO CONTINUE.."
READ
EXIT
ENDIF
STORE 0 TO BE
DO SEARTOWNS
STORE " " TO ANS
DELETE
@2,10 SAY "DATA FOR RECORD NO"+ STR(RECNO(),6)+ "MARKED FOR DELETE
ARE"
@4,2 TO 14,40 DOUBLE
@6,5 SAY "TOWNS' CODE : " + MTCODE
@8,5 SAY " NAME OF TOWN: " + TOWN
@10,5 SAY "NAME OF L.G.A.: " + LGA
@12,5 SAY "NAME OF STATE: " + STATE
@18,2 SAY "PRESS (P) TO PACK THE RECORD OR (ANY KEY) TO ABORT
DELETE" GET ANS
READ
@18,2 CLEAR TO 18,70
IF UPPER(ANS) <> "P"
@23,2 SAY "DELETION OF RECORD HAS BEEN ABORTED PLEASE. PRESS ANY KEY
TO CONTINUE.."
READ
RECALL
EXIT
ELSE
@23,2 SAY "RECORD HAS BEEN DELETED PLEASE!. PRESS ANY KEY TO
CONTINUE.."
READ
PACK
EXIT
ENDIF
ENDDO
CLEAR
STORE " " TO ANSWER
@4,2 TO 8,77 DOUBLE
```

```
@6,3 SAY "PRESS ANY KEY TO DELETE MORE RECORDS OR (R) TO RETURN  
TO CALLING MENU" GET ANSWER  
READ  
CLEAR  
IF UPPER(ANSWER) = "R"  
EXIT  
ELSE  
LOOP  
ENDIF  
ENDDO  
CLOSE DATABASES
```

```
SET TALK OFF
SET STATUS OFF
SET SCOREBOARD OFF
STORE 0 TO MO
COUNT FOR TCODE = MTCODE TO BE
IF BE >1
CLEAR
@3,4 TO 7,60 DOUBLE
@4,6 SAY "THERE ARE"+STR(BE,2)+" "+"RECORDS WITH THIS CODE"
@6,12 SAY "SOME INFORMATION FOR THIS RECORDS ARE "
@8,2 SAY " "
WAIT
CLEAR
LIST FIELDS TCODE,TOWN,LGA FOR TCODE = MTCODE
@23,22 SAY "ENTER THE APPROPRIATE NO NEEDED"
@24,25 SAY " " GET MO PICT "999999"
READ
CLEAR
ENDIF
LOCATE FOR RECNO() =MO
RETURN
```

```
SET TALK OFF
SET STATUS OFF
SELECT E
LOCATE FOR MONTH = MMONTH .AND. YEAR = MYEAR
IF FOUND()
SELECT C
USE SUMBIRTH
INDEX ON TCODE TO SORT1
SELECT E
USE MSUMBIRTH
INDEX ON TCODE TO SORT2
UPDATE ON TCODE FROM SUMBIRTH REPL MTOTAL WITH MTOTAL+C->MTOTAL,MALE
MALE+C->MALE,FEMA WITH FEMA+C->FEMA,SING WITH SING+C->SING
UPDATE ON TCODE FROM SUMBIRTH REPL MULT WITH MULT+C->MULT,UN15
WITH UN15+C->UN15,HOS WITH HOS+C->HOS
UPDATE ON TCODE FROM SUMBIRTH REPL MAT WITH MAT+C->MAT,HOME WITH
HOME+C->HOME,TRADOC WITH TRADOC+C->TRADOC,BOTHERS WITH
BOTHERS+C->BOTHERS,MA WITH MA+C->MA
UPDATE ON TCODE FROM SUMBIRTH REPL NMA WITH NMA+C->NMA,WID WITH
WID+C->WID,DIV WITH DIV+C->DIV,SEP WITH SEP+C->SEP
UPDATE ON TCODE FROM SUMBIRTH REPL BO_1 WITH BO_1+C->BO_1,BO_2
WITH BO_2+C->BO_2,BO_3 WITH BO_3+C->BO_3,BO_4 WITH
BO_4+C->BO_4,BO_5 WITH BO_5+C->BO_5
UPDATE ON TCODE FROM SUMBIRTH REPL BO_6 WITH BO_6+C->BO_6,BO_7
WITH BO_7+C->BO_7,BO_8 WITH BO_8+C->BO_8,BO_9 WITH
BO_9+C->BO_9,BO_09 WITH BO_09+C->BO_09
UPDATE ON TCODE FROM SUMBIRTH REPL A15_19 WITH A15_19+C->A15_19,A20_
WITH A20_24+C->A20_24,A25_29 WITH A25_29+C->A25_29,A30_34 WITH
A30_34+C->A30_34,A35_39 WITH A35_39+C->A34_39
UPDATE ON TCODE FROM SUMBIRTH REPL A40_44 WITH
A40_44+C->A40_44,A45_49 WITH A45_49+C->A45_49,A050 WITH
A050+C->A050
UPDATE ON TCODE FROM SUMBIRTH REPL MEI WITH MEI+C->MEI,MEPR WITH
MEPR+C->MEPR,MES WITH MES+C->MES,MEPO WITH MEPO+C->MEPO,MEUN WITH
MEUN+C->MEUN
UPDATE ON TCODE FROM SUMBIRTH REPL MENO WITH MENO+C->MENO,FEI
WITH FEI+C->FEI,FEPR WITH FEPR+C->FEPR,FES WITH FES+C->FES,FEPO
WITH FEPO+C->FEPO
UPDATE ON TCODE FROM SUMBIRTH REPL FEUN WITH FEUN+C->FEUN,FENO
WITH FENO+C->FENO
RETURN
```

ADD DEATH.PRG

```
SET TALK OFF
STATUS OFF
SAFETY OFF
RE SPACE(1) TO ANSWER
,1 TO 6,70 DOUBLE
,5 SAY "THIS ROUTINE ADD RECORD(S) TO DEATH FILE"
,5 SAY "Press any key to do the adding OR (R) to return to main
"
,6 SAY " " GET ANSWER
)
UPPER(ANSWER) = "R"
PAR
URN
IF
RT = RECNO()
DEATH
WHILE .T.
WHILE .T.
RE SPACE(1) TO ANSWER
PAR
RE SPACE(15) TO
REG_AREA,CTOWN,CLGA,CPOD,CE_ORIGIN,CD_LGA,CD_TOWN
RE SPACE(10) TO CSTATE,CS_ORIGIN,CREL,CCAUSE
RE CTOD(" / / ") TO CDOR,CDOD
RE SPACE(30) TO CN_DE,CN_INFOR
RE SPACE(12) TO COCCU,CNATION,CEDU
RE SPACE(3) TO CLITE
RE SPACE(40) TO CADD,CADD_INFOR
RE SPACE(1) TO CCERT,CSEX
RE SPACE(8) TO CM_STATUS
RE SPACE(19) TO CCODE
RE SPACE(9) TO CVCODE
RE 0 TO CAGE_Y,CAGE_M,CAGE_D
,1 TO 11,78 DOUBLE
,25 SAY "DEATH REGISTRATION FORM"
,25 SAY REPL("-",23)
,5 SAY "REG.CODE:" GET CCODE PICT "99/99/999/999/99999"
AD
DATE FOR DCODE = CCODE
FOUND()
EAR
,2 TO 5,60 DOUBLE
,5 SAY "RECORD ALREADY EXISTS PLEASE!"
,5 SAY "Press any key to continue..."
AD
,5 CLEAR TO 3,55
IT
DIF
,2 SAY "REG. AREA" GET CREG_AREA
,43 SAY "TOWN" GET CTOWN
,0,2 SAY "LGA" GET CLGA
,0,36 SAY "REG.DATE" GET CDOR
,0,54 SAY "STATE OF REG" GET CSTATE
,2,1 TO 23,78 DOUBLE
WHILE .T.
,4,2 SAY SPACE(75)
,4,25 SAY "PARTICULARS OF DECEASED"
,5,25 SAY REPL("-",23)
,6,2 SAY "NAMES (SURNAME 1ST)" GET CN_DE
,8,2 SAY "SEX" GET CSEX
,8,10 SAY "OCCU" GET COCCU PICT "99"
,8,32 SAY "DEATH.DATE" GET CDOD
,8,58 SAY "T.O.CODE" GET CVCODE PICT "99/99/999"
,0,2 SAY "DEATH PLACE" GET CPOD PICT "99"
,0,29 SAY "AGE DIED(YR)" GET CAGE_Y PICT "999"
```

```

1 SAY "AGE DIED(M)" GET CAGE_M PICT "99"
2 SAY "AGE DIED(D)" GET CAGE_D PICT "99"
   SAY "ADD.OF RESIDENCE" GET CADD
   SAY "Press any key to add data to more fields please.."
2 CLEAR TO 22,77
2 SAY SPACE(75)
2 SAY "NATIONALITY" GET CNATION
30 SAY "STA.ORIGIN" GET CS_ORIGIN
53 SAY "ETHNIC" GET CE_ORIGIN
2 SAY "LGA.ORIGIN" GET CD_LGA
30 SAY "TOWN ORIGIN" GET CD_TOWN
58 SAY "M.STATUS" GET CM_STATUS PICT "99"
2 SAY "LITERACY" GET CLITE PICT "9"
30 SAY "EDUCATION" GET CEDU PICT "99"
2 SAY "CERTIFICATION" GET CCERT PICT "9"
20 SAY "CAUSE OF DEATH" GET CCAUSE PICT "99"
AD
4,6 SAY "Press any key to add data to more fields please.."
READ
14,2 CLEAR TO 22,77
24,2 SAY SPACE(75)
14,25 SAY "PARTICULARS OF INFORMANT"
15,24 SAY REPL("-",24)
16,2 SAY "R/P TO DECEASED" GET CREL
18,2 SAY "INFORMANT NAME" GET CN_INFOR
20,2 SAY "INFORMANT ADDRESS" GET CADD_INFOR
READ
STORE SPACE(1) TO ANSWER
24,2 SAY "PRESS(R) TO REVIEW,(A) TO ABORT SAVING, OR (ANY KEY)
TO SAVE" GET ANSWER
READ
DO CASE
CASE UPPER(ANSWER) = "R"
14,2 CLEAR TO 22,77
LOOP
CASE UPPER(ANSWER) = "A"
CLEAR
EXIT
OTHERWISE
APPEND BLANK
REPL REG_AREA WITH CREG_AREA,TOWN WITH CTOWN,LGA WITH
LGA,STATE WITH CSTATE
REPL DRV WITH CDRV,ENO WITH CENO,DOR WITH CDOR,N_DE WITH
N_DE,DCODE WITH CCODE
REPL SEX WITH CSEX,OCCU WITH COCCU,VCODE WITH CVCODE,DOD WITH CDOD,POD W
POD
REPL AGE_D WITH CAGE_D,ADD WITH CADD,NATION WITH CNATION
REPL S_ORIGIN WITH CS_ORIGIN,E_ORIGIN WITH CE_ORIGIN,M_STATUS
WITH CM_STATUS
REPL LITE WITH CLITE,EDU WITH CEDU,CERT WITH CCERT,CAUSE WITH
CAUSE
REPL REL WITH CREL,N_INFOR WITH CN_INFOR,ADD_INFOR WITH
CADD_INFOR
REPL D_LGA WITH CD_LGA,D_TOWN WITH CD_TOWN
EXIT
ENDCASE
ENDDO
CLEAR
EXIT
ENDDO
STORE " " TO ANSWER
1,2 TO 5,60 DOUBLE
2,12 SAY "PRESS (ANY KEY) TO ADD MORE RECORDS"

```

6 SAY "OR (R) TO RETURN"

5 SAY " " GET ANSWER

UPPER(ANSWER) = "R"

IT

OP

FF

DO

EAR

8,2 SAY "YOU HAVE ADDED" + LTRIM(STR(RECNO() - START,3)) +

RECORDS"

TURN

2005/07/14

```

SET TALK OFF
STATUS OFF
DO TO MYEAR
SPACE(1) TO ANSWER
TO 7,70 DOUBLE
SAY "THIS ROUTINE DOES COMPUTATION AND UPDATE OF MONTHLY"
4 SAY "TOWNS OF A PARTICULAR YEAR"
SAY "ENTER YEAR OF INTEREST OR (0) TO RETURN TO CALLING"
DO GET MYEAR PICT "9999"
DO
MYEAR = 0
MYEAR
DO
DO IF
DO IF A
DO IF TOWNS
DO IF C
DO IF SUMDEATH
DO IF ALL
DO IF
DO IF E
DO IF MSUMDEATH
DO IF F
DO IF MONTH
DO IF B
DO IF MDEATH
DO INDEX ON VCODE + DTOC(DOD) TO SMDEATH
DO IF F
DO GO TOP
DO WHILE .NOT. EOF()
MMONTH = MONTH
DO IF A
DO GO TOP
DO WHILE .NOT. EOF()
CODE = TCODE
MSTATE = STATE
MLGA = LGA
MTOWN = TOWN
DO IF B
DO GO TOP
DO LOC FOR MONTH(DOD)= MMONTH .AND. YEAR(DOD) = MYEAR .AND. VCODE = CODE
IF FOUND()
COUNT FOR VCODE = CODE TO CTOTAL
COUNT FOR SEX= 1 .AND. VCODE = CODE TO CMALE
COUNT FOR SEX = 2 .AND. VCODE = CODE TO CFEMA
COUNT FOR AGE_D >0 .AND. AGE_D < 7 .AND. SEX= 1 .AND. VCODE = CODE TO
MUN1W
COUNT FOR AGE_D > 0 .AND. AGE_D < 28 .AND. SEX = 1 .AND. VCODE = CODE TO
MUN4W
COUNT FOR AGE_M > 0 .AND. AGE_M <=12 .AND. SEX = 1 .AND. VCODE = CODE TO
MUN1Y
COUNT FOR AGE_D > 0 .AND. AGE_D <7 .AND. SEX = 2 .AND. VCODE =
CODE TO CFUN1W
COUNT FOR AGE_D > 0 .AND. AGE_D <28 .AND. SEX = 2 .AND. VCODE =
CODE TO CFUN4W
COUNT FOR AGE_M >0 .AND. AGE_M <=12 .AND. SEX = 2 .AND. VCODE =
CODE TO CFUN1Y
COUNT FOR AGE_Y <= 15 .AND. SEX = "F" .AND. VCODE = CODE TO CFUN15
COUNT FOR AGE_Y >15 .AND. AGE_Y <=45 .AND. SEX = "F" .AND. VCODE =
CODE TO CFBW1645
COUNT FOR AGE_Y >45 .AND. SEX = "F" .AND. VCODE = CODE TO CFOV45
COUNT FOR POD = 1 .AND. VCODE = CODE TO CHOS
COUNT FOR POD = 4 .AND. VCODE = CODE TO CTRADOC
COUNT FOR POD = 3 .AND. VCODE = CODE TO CHOME
COUNT FOR POD = 2 .AND. VCODE = CODE TO CMAT

```

```

COUNT FOR POD = 5 .AND. VCODE = CODE TO CDOTHERS
COUNT FOR M_STATUS = 1 .AND. VCODE = CODE TO CMA
COUNT FOR M_STATUS = 2 .AND. VCODE = CODE TO CNMA
COUNT FOR M_STATUS = 3 .AND. VCODE = CODE TO CWID
COUNT FOR M_STATUS = 4 .AND. VCODE = CODE TO CDIV
COUNT FOR M_STATUS = 5 .AND. VCODE = CODE TO CSEP
COUNT FOR CAUSE = 01 .AND. VCODE = CODE TO CAI
COUNT FOR CAUSE = 02 .AND. VCODE = CODE TO CBP
COUNT FOR CAUSE = 03 .AND. VCODE = CODE TO CFE
COUNT FOR CAUSE = 04 .AND. VCODE = CODE TO CDS
COUNT FOR CAUSE = 05 .AND. VCODE = CODE TO CRS
COUNT FOR CAUSE = 06 .AND. VCODE = CODE TO CCN
COUNT FOR CAUSE = 07 .AND. VCODE = CODE TO CIN
COUNT FOR CAUSE = 08 .AND. VCODE = CODE TO CSE
COUNT FOR CAUSE = 09 .AND. VCODE = CODE TO CSU
COUNT FOR CAUSE = 10 .AND. VCODE = CODE TO CCOTHERS
COUNT FOR AGE_Y >= 1 .AND. AGE_Y < 5 .AND. VCODE = CODE TO CA1_4
COUNT FOR AGE_Y >= 5 .AND. AGE_Y < 15 .AND. VCODE = CODE TO CA5_14
COUNT FOR AGE_Y >= 15 .AND. AGE_Y < 24 .AND. VCODE = CODE TO CA15_24
COUNT FOR AGE_Y >= 25 .AND. AGE_Y < 44 .AND. VCODE = CODE TO CA25_44
COUNT FOR AGE_Y >= 45 .AND. AGE_Y < 64 .AND. VCODE = CODE TO CA45_64
COUNT FOR AGE_Y >= 65 .AND. VCODE = CODE TO CA065
COUNT FOR EDU = 1 .AND. VCODE = CODE TO CDEI
COUNT FOR EDU = 2 .AND. VCODE = CODE TO CDEPR
COUNT FOR EDU = 3 .AND. VCODE = CODE TO CDES
COUNT FOR EDU = 4 .AND. VCODE = CODE TO CDEPO
COUNT FOR EDU = 5 .AND. VCODE = CODE TO CDEUN
COUNT FOR EDU = 6 .AND. VCODE = CODE TO CDENO
SELECT C
APPE BLAN
REPL TCODE WITH CODE, STATE WITH MSTATE, LGA WITH MLGA, TOWN WITH
MTOWN
REPL MONTH WITH MMONTH, YEAR WITH MYEAR, MTOTAL WITH CTOTAL, MALE
WITH CMALE, FEMA WITH CFEMA
REPL MUN1W WITH MCUN1W, MUN4W WITH MCUN4W, MUN1Y WITH MCUN1Y, FUN15 WITH
CFUN15, FBW1645 WITH CFBW1645
REPL FUN1W WITH CFUN1W, FUN4W WITH CFUN4W, FUN1Y WITH CFUN1Y
REPL FOV45 WITH CFOV45, HOS WITH CHOS, TRADOC WITH CTRADOC, DOTHERS
WITH CDOTHERS, MA WITH CMA
REPL NMA WITH CNMA, WID WITH CWID, MAT WITH CMAT, HOME WITH
CHOME, DIV WITH CDIV
REPL SEP WITH CSEP, AI WITH CAI, BP WITH CBP, FE WITH CFE, DS WITH
CDS
REPL RS WITH CRS, CN WITH CCN, IN WITH CIN, SE WITH CSE, SU WITH CSU
REPL COTHERS WITH CCOTHERS, A1_4 WITH CA1_4, A5_14 WITH
CA5_14, A15_24 WITH CA15_24
REPL A25_44 WITH CA25_44, A45_64 WITH CA45_64, A065 WITH A065, DEI
WITH CDEI
REPL DEPR WITH CDEPR, DES WITH CDES, DEPO WITH CDEPO, DEUN WITH
CDEUN, DENO WITH CDENO
SELE E
LOCA FOR TCODE = CODE .AND. MONTH = MMONTH .AND. YEAR = MYEAR
IF .NOT. FOUND()
APPEND BLANK
REPL TCODE WITH CODE, TOWN WITH MTOWN, LGA WITH MLGA, MONTH WITH
MMONTH, YEAR WITH MYEAR
REPL STATE WITH MSTATE
ENDIF
ENDIF
SELE A
SKIP
LOOP
ENDDO
DO PSUMDEATH
SELECT B
```

ALL

TO 14,70 DOUBLE  
SAY "JOB COMPLETED PLEASE"

E DATABASES  
R  
RN

SET TALK OFF

STATUS OFF

SELECT E

DATE FOR MONTH = MMONTH .AND. YEAR = MYEAR

FOUND()

SELECT C

MSUMSTILL

INDEX ON TCODE TO SORT1

SELECT E

MSUMSTILL

INDEX ON TCODE TO SORT2

UPDATE ON TCODE FROM SUMSTILL REPL MTOTAL WITH MTOTAL+C->MTOTAL, MALE WITH MALE+C->MALE, FEMA WITH FEMA+C->FEMA, SING WITH SING+C->SING

UPDATE ON TCODE FROM SUMSTILL REPL MULT WITH MULT+C->MULT, UN15

WITH UN15+C->UN15, HOS WITH HOS+C->HOS

UPDATE ON TCODE FROM SUMSTILL REPL MAT WITH MAT+C->MAT, HOME WITH

HOME+C->HOME, TRADOC WITH TRADOC+C->TRADOC, BOTHERS WITH

BOTHERS+C->BOTHERS

UPDATE ON TCODE FROM SUMSTILL REPL A15\_19 WITH A15\_19+C->A15\_19, A20\_24

WITH A20\_24+C->A20\_24, A25\_29 WITH A25\_29+C->A25\_29, A30\_34 WITH

A30\_34+C->A30\_34, A35\_39 WITH A35\_39+C->A34\_39

UPDATE ON TCODE FROM SUMBIRTH REPL A40\_44 WITH

A40\_44+C->A40\_44, A45\_49 WITH A45\_49+C->A45\_49, A050 WITH

A050+C->A050

RETURN

```
TALK OFF
STATUS OFF
FREE SPACE(1) TO TS
@2,2 TO 5,60 DOUBLE
@4,4 SAY "THIS PROGRAM ADDS DATA TO STILL BIRTH FILE"
@4,4 SAY "Press any key to add record(s) OR (R) to return" GET TS
READ
UPPER(TS) = "R"
RETURN
ENDIF
PART = RECNO()
BE STILL
CLEAR
DO WHILE .T.
DO WHILE .T.
@1,1 TO 10,75 DOUBLE
@2,20 SAY "STILL BIRTH REGISTRATION FORM"
@3,20 SAY "-----"
STORE SPACE(15) TO CREG_AREA,CTOWN,CLGA,CTOWN_OCCU
STORE SPACE(10) TO CSTATE,CMS_ORIGIN,CMR_INFOR
STORE CTOD(" / / ") TO CDOR,CDOB
STORE SPACE(1) TO CSEX
STORE SPACE(30) TO CN_MOTHER,CN_INFOR
STORE SPACE(40) TO CADD_MOTHER,CADD_INFOR
STORE SPACE(1) TO CTOB
STORE SPACE(2) TO CPOO
STORE 0 TO CM_AGE
STORE SPACE(19) TO CCODE
STORE SPACE(9) TO CVCODE
@4,10 SAY "REG. CODE:" GET CCODE PICT "99/99/999/999/99999"
READ
LOCATE FOR SBCODE = CCODE
IF FOUND()
CLEAR
@1,2 TO 5,60
@2,4 SAY "RECORD ALREADY EXISTS PLEASE"
@3,4 SAY "Press any key to continue..."
READ
@2,4 CLEAR TO 3,50
EXIT
ENDIF
@6,2 SAY "REG AREA:" GET CREG_AREA
@6,47 SAY "VILL/TOWN:" GET CTOWN
@8,2 SAY "LGA:" GET CLGA
@8,37 SAY "REG DATE:" GET CDOR PICT "99/99/99"
@8,57 SAY "STATE:" GET CSTATE
@10,1 TO 23,75 DOUBLE
DO WHILE .T.
@24,2 SAY SPACE(70)
@11,20 SAY "PARTICULARS OF STILL BIRTH"
@12,20 SAY REPL("-",25)
@14,2 SAY "PLACE OF OCCU:" GET CPOO PICT "9"
@14,20 SAY "TOWN OF OCCU:" GET CTOWN_OCCU
@16,2 SAY "TOWN OF OCCU. CODE:" GET CVCODE PICT "99/99/999"
@16,35 SAY "DATE OF BIRTH:" GET CDOB PICT "99/99/99"
@18,2 SAY "SEX : " GET CSEX PICT "9"
@18,20 SAY "TYPE OF BIRTH:" GET CTOB PICT "9"
READ
@24,6 SAY "Press any key to enter data for more fields please.."
READ
@11,20 CLEAR TO 12,60
@11,20 SAY "PARTICULARS OF MOTHER"
@12,20 SAY REPL("-",21)
@14,2 CLEAR TO 22,74
```

```

2 SAY SPACE(70)
2 SAY "NAMES(SURNAME 1ST)" GET CN_MOTHER
2 SAY "ADDRESS OF RESIDENCE" GET CADD_MOTHER
2 SAY "AGE AT BIRTH" GET CM_AGE
2 SAY "STATE OF ORIGIN" GET CMS_ORIGIN
D
4,6 SAY "Press any key to enter data for more fields pleas.."
D
1,20 SAY "PARTICULARS OF INFORMAT"
2,20 SAY REPL("-",23)
4,2 CLEAR TO 22,74
4,2 SAY SPACE(70)
4,2 SAY "RELATIONSHIP TO MOTHER" GET CMR_INFOR PICT "99"
6,2 SAY "NAMES (SURNAME 1ST)" GET CN_INFOR
8,2 SAY "ADDRESS OF RESIDENCE" GET CADD_INFOR
22,2 SAY REPL(" ",72)
READ
STORE SPACE(1) TO ANSWER
24,2 SAY "PRESS (R) TO REVIEW,(A) TO ABORT SAVING OR (ANY KEY)
TO SAVE" GET ANSWER
READ
DO CASE
CASE UPPER(ANSWER) = "A"
CLEAR
EXIT
CASE UPPER(ANSWER) = "R"
@14,2 CLEAR TO 22,74
LOOP
OTHERWISE
APPEND BLANK
REPL REG_AREA WITH CREG_AREA,TOWN WITH CTOWN,LGA WITH CLGA
REPL STATE WITH CSTATE,SBCODE WITH CCODE
REPL DOR WITH CDOR,DOB WITH CDOB
REPL SEX WITH CSEX,POO WITH CPOO,TOWN_OCCU WITH
CTOWN_OCCU,VCODE WITH CVCODE
REPL TOB WITH CTOB,N_MOTHER WITH
CN_MOTHER,ADD_MOTHER WITH CADD_MOTHER,M_AGE WITH CM_AGE
REPL MS_ORIGIN WITH CMS_ORIGIN
REPL N_INFOR WITH CN_INFOR,ADD_INFOR WITH CADD_INFOR,MR_INFOR WITH
CMR_INFOR
ENDCASE
EXIT
ENDDO
CLEAR
EXIT
ENDDO
STORE " " TO ANSWER
@2,4 SAY "PRESS (ANY KEY) TO ADD MORE RECORDS "
@3,10 SAY "OR (R) TO RETURN"
@4,25 SAY " " GET ANSWER
READ
IF UPPER(ANSWER) = "R"
RETURN
ELSE
CLEAR
LOOP
ENDDO
CLEAR
@18,2 SAY "YOU HAVE ADDED" + LTRIM(STR(RECNO() - START,3)) +
"RECORDS"
RETURN

```

SUMSTILL FILE

```

SET TALK OFF
STAT OFF
RE " " TO BA
10 TO 12,70
12 SAY "THIS ROUTINE COMPUTES AND UPDATES MONTHLY STILL BIRTHS FOR
TOWNS"
13 SAY "PRESS ANY KEY TO EXECUTE THIS ROUTINE "
14,25 SAY "OR (R) TO RETURN TO CALLING MENU" GET BA
READ
UPPER(BA) = "R"
LEA
TU
DIF
LEA
STORE 0 TO MYEAR
5,2 TO 9, 70 DOUBLE
6,4 SAY "ENTER THE YEAR YOU WANT TO COMPUTE AND UPDATE"
7,20 SAY " " GET MYEAR PICT "9999"
LEAD
SELE A
USE TOWNS
INDEX ON TCODE TO SORTA
SELE B
USE MSTILL
INDEX ON LGA+VCODE+TOWN+DTOC(DOB) TO SMSTILL
SELE C
USE SUMSTILL
SELE E
USE MSUMSTILL
SELE F
USE MONTH
SELE D
USE STILL
INDEX ON LGA+VCODE+TOWN+DTOC(DOB) TO SSTILL
SELE B
APPE FROM STILL
SELE F
GO TOP
DO WHILE .NOT. EOF()
MMONTH = MONTH
SELE A
GO TOP
DO WHILE .NOT. EOF()
CODE = TCODE
MSTATE = STATE
MLGA = LGA
MTOWN = TOWN
SELE B
GO TOP
LOCA FOR MONTH(DOB) = MMONTH .AND. YEAR(DOB) =MYEAR .AND.
VCODE = CODE
IF FOUND()
COUNT FOR VCODE = CODE TO CTOTAL
COUNT FOR SEX= 1 .AND. VCODE = CODE TO CMALE
COUNT FOR SEX = 2 .AND. VCODE = CODE TO CFEMA
COUNT FOR TOB = 1 .AND. VCODE = CODE TO CSING
COUNT FOR TOB = 2 .AND. VCODE = CODE TO CMULT
COUNT FOR POO = 1 .AND. VCODE = CODE TO CHOS
COUNT FOR POO = 4 .AND. VCODE = CODE TO CTRADOC
COUNT FOR POO = 3 .AND. VCODE = CODE TO CHOME
COUNT FOR POO = 2 .AND. VCODE = CODE TO CMAT
COUNT FOR POO = 5 .AND. VCODE = CODE TO CBOTHERS
COUNT FOR M_AGE < 15 .AND. VCODE = CODE TO CUN15
COUNT FOR M_AGE >=15 .AND. M_AGE <=19 .AND. VCODE = CODE TO

```

```
19
FOR M_AGE >=20 .AND. M_AGE <25 .AND. VCODE = CODE TO CA20_24
FOR M_AGE >=25 .AND. M_AGE <30 .AND. VCODE = CODE TO CA25_29
FOR M_AGE >=30 .AND. M_AGE <35 .AND. VCODE = CODE TO CA30_34
FOR M_AGE >=35 .AND. M_AGE <39 .AND. VCODE = CODE TO CA35_39
FOR M_AGE >=40 .AND. M_AGE <44 .AND. VCODE = CODE TO CA40_44
FOR M_AGE >=44 .AND. M_AGE <49 .AND. VCODE = CODE TO CA45_49
FOR M_AGE >=50 .AND. VCODE = CODE TO CA050
```

```
C
BLAN
TCODE WITH CODE,STATE WITH MSTATE,LGA WITH MLGA,TOWN WITH
```

```
UN
MONTH WITH MMONTH,YEAR WITH MYEAR,MTOTAL WITH CTOTAL
MALE WITH CMALE,FEMA WITH CFEMA,SING WITH CSING,MULT WITH
MULT,UN15 WITH CUN15
PL HOS WITH CHOS,TRADOC WITH CTRADOC,BOTHERS WITH CBOTHERS
PL MAT WITH CMAT,HOME WITH CHOME
PL A15_19 WITH CA15_19,A20_24 WITH CA20_24,A25_29 WITH
25_29,A30_34 WITH CA30_34,A35_39 WITH CA35_39
PL A40_44 WITH CA40_44,A45_49 WITH CA45_49,A050 WITH CA050
```

```
FILE E
DOCA FOR TCODE = CODE .AND. MONTH = MMONTH .AND. YEAR = MYEAR
F .NOT. FOUND()
```

```
PE BLAN
REPL TCODE WITH CODE,STATE WITH MSTATE,LGA WITH MLGA,TOWN WITH
```

```
ATOWN
REPL MONTH WITH MMONTH,YEAR WITH MYEAR
```

```
ENDIF
ENDIF
SELE A
SKIP
LOOP
ENDDO
DO PSUMSTILL
```

```
SELE D
DELE ALL
PACK
SELE C
DELE ALL
PACK
```

```
CLEAR
@10,2 TO 16,70 DOUBLE
@12,4 SAY "COMPUTING AND MONTHLY UPDATING OF STILL BIRTHS COMPLETED PLEASE"
@14,4 SAY "PRESS ANY KEY TO RETURN TO CALLING MENU"
```

```
READ
CLEAR
CLOSE DATABASES
RETN
```



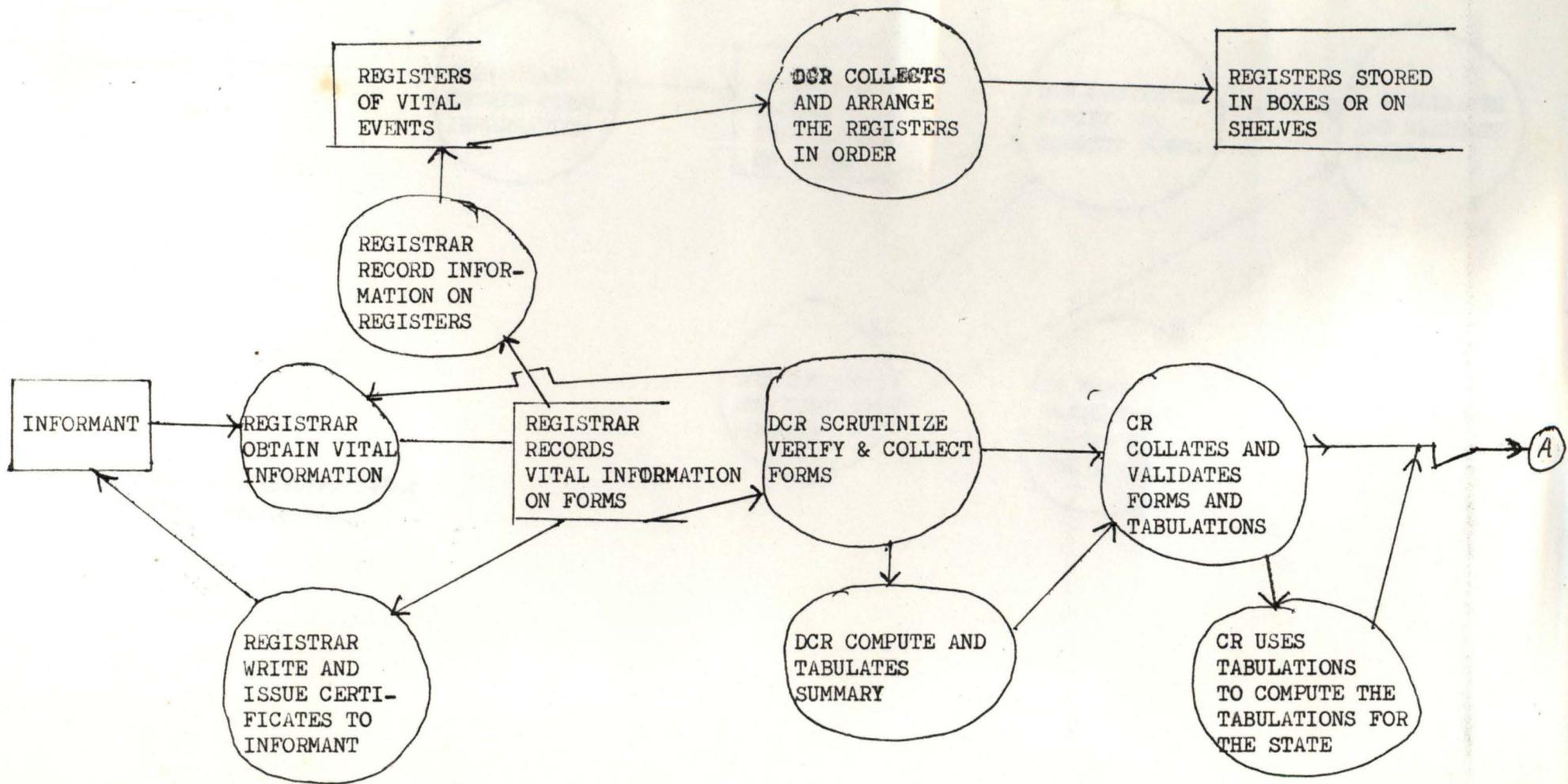










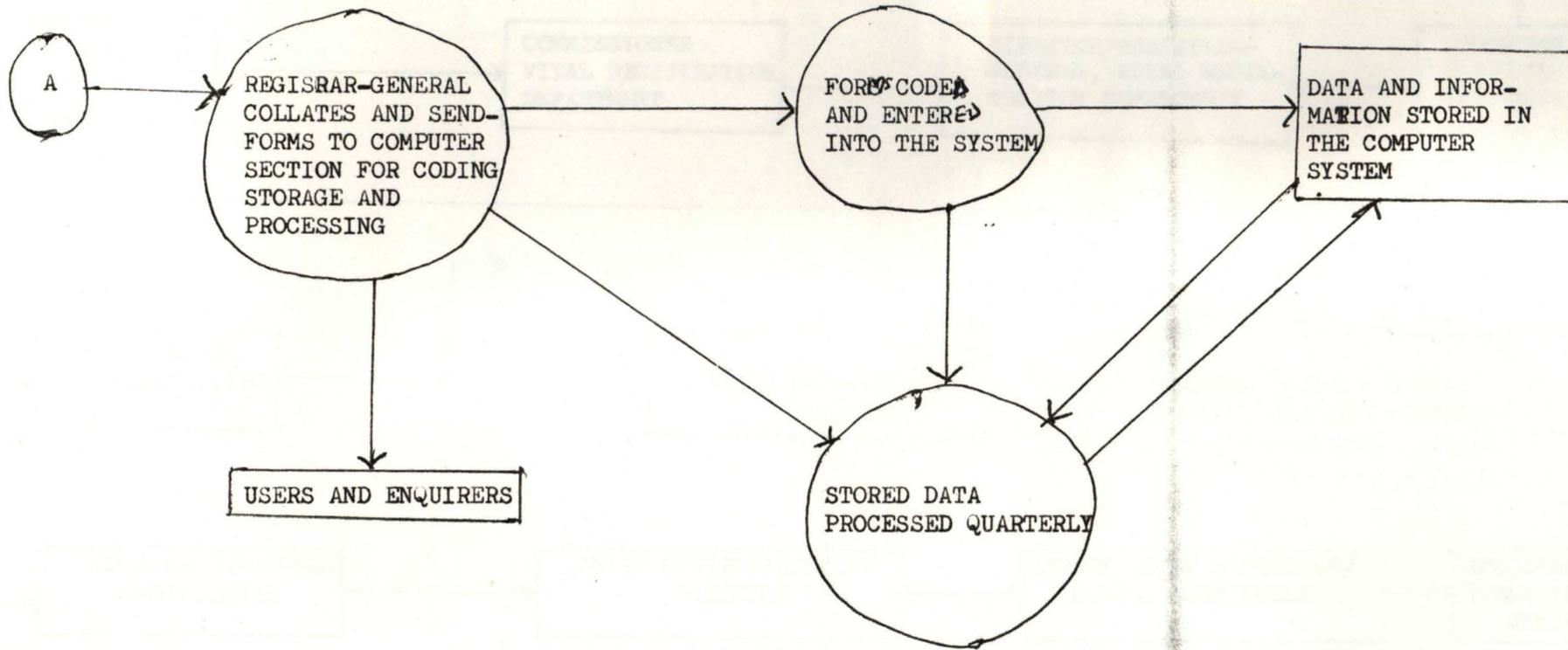


DATA FLOW DIAGRAM FOR LIVE BIRTHS AND DEATH ACTIVITIES

NOTE:

- DCR - DEPUTY CHIEF REGISTRAR
- CR - CHIEF REGISTRAR

APPENDIX 4.1.3

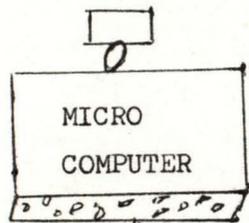




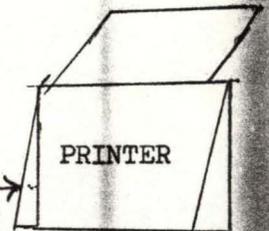
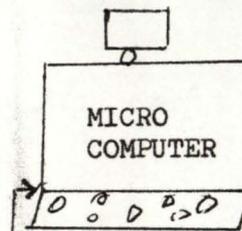
ANALYST IMPRESSION OF COMMUNICATION DESIGN

APPENDIX 4.5

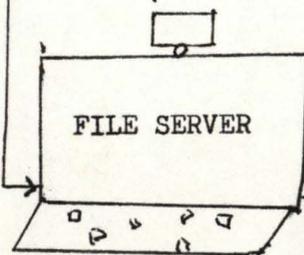
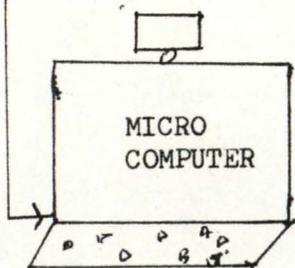
HOD VITAL REGISTRATION OFFICE



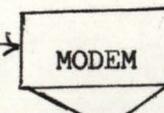
DIRECTOR'S OFFICE



COMPUTER SECTION



COAXIAL CABLE



NPC HEADQUARTERS

