COMPUTERISATION OF STUDENTS INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES) ACTIVITIES

A CASE STUDY OF INDUSTRIAL TRAINING FUND HEADQUARTERS, JOS

BY

OGAJI ALHASSAN BENJAMIN
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A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE, SCHOOL OF SCIENCE AND SCIENCE EDUCATION OF THE FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF POST-GRADUATE DIPLOMA IN COMPUTER SCIENCE.

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CERTIFICATION

This is to certify to the best of my knowledge that this work has been carried out by me, Ogaji, Alhassan Benjamin under the supervision of Mr. Isah Audu of the Department of Mathematics/Computer Science, Federal University of Technology, Minna.

MR. ISAH AUDU
(PROJECT SUPERVISOR)

DATE

DR. S. A. REJU
(HEAD OF DEPARTMENT)

DATE

EXTERNAL EXAMINER

DATE

DEDICATION

This piece of work is dedicated to my parents, Late Paul Ogaji Ocheje and Mrs. Mary I. Ogaji.

Equally dedicated to my wife, Mrs. Grace Aishetu Ogaji, my children and those who seek knowledge.

ACKNOWLEDGEMENT

First and foremost, I thank God for giving me time and grace and opportunity to run this programme despite all odds.

Secondly, I wish to express my gratitude to my supervisor in person of Mallam Isah Audu. I thank him for taking his time to go through my write-ups and for offering useful suggestions that made this project work a huge success.

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I give glory and honour to GOD ALMIGHTY for making me complete the programme.

ABSTRACT

Industrial Training Fund (ITF) is an agency responsible for monitoring students on industrial attachment in terms of supervision and other related matters. Industrial Training Fund in these present days have been facing ever-increasing challenges because of the growth in student population and the concomitant information management vis-a-vis Students Industrial Work Experience Schmeme (SIWES).

The basis of the problem with the current method is connected with the manual processing of information requirement. Given this problem and the development state of information technology in the country, it can be concluded that the computerisation of the procedure will eliminate the current problems being faced.

In view of the above, the aim of this study is to analyse and design a computer based system of operation for the Industrial Training Fund in terms of Students Industrial Work Experience schmeme (SIWES) information management system. This is achieved by designing a package for managing SIWES activities using dBASE IV.

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CHAPTER ONE

GENERAL INTRODUCTION

1.0 INTRODUCTION

Training, formal or informal is a planned activity to provide necessary skills or improve on existing ones for a more effective performance. It refers to the acquisition of knowledge, skill or attitude required to perform not just well but better. Training is an intermix of teaching and practice carried out in order to attain a desired standard of behaviour, efficiency and effectiveness with the main aim to effect a change for the better.

Every training concept is based on stated objectives. They express the purpose to be achieved, constitute a basis for the planning of programming content as well as for the selection of training and development methods, and permit control and evaluation of results. They also limit the training task to clearly prescribed areas.

Training is said to be a continuous process at all stages of a worker's active life and at all occupational levels for the sake of improved performance. The concept of training is a key factor in enhancing free mobility of labour force. Based on the above, the effective development of human resources is one of the best ways of achieving economic growth and development.

Human resource development involves all the activities that is concerned with manpower planning, training, retraining, productivity and employee motivation. It is said to embrace all the diverse processes which aim at

transferring people to enable them contribute more effectively to social and economic development. A nation's human resource can thus be improved through purposeful and result-oriented education and training.

One way of achieving the above objective is through the work experience programme. This programme which basically prepares people for the world of work has become an innovative phenomenon in the process of manpower development and training in Nigeria. This, therefore, leads to the introduction of the Students Industrial Work Experience Scheme (SIWES) into the system of education and training.

SIWES is a skill training programme designed to expose and prepare students of tertiary institutions which include Universities, Polytechnics/Colleges of Technology, Colleges of Education and Monotechnics, to real life work situation after graduation.

The scheme has received wide dimensions in recent times and all industrial and commercial establishments contribute to make it operational by providing specific skills in form of experience. There is hardly any sizeable industrial and commercial establishment that is not involved with the scheme.

When SIWES was first introduced, it was limited to the students of technology. Today, it has covered many disciplines and has become a necessary precondition for the award of diploma and degree certificates in specific disciplines in most institutions of higher learning in the country.

In addition to the expansion of students and colleges whose students have to participate in the scheme, the students population in all the institutions

have been on the increase. The net effect of these is that the Industrial Training Fund (ITF), an agency responsible for monitoring the SIWES programme are faced with the challenges of managing the students information.

After a careful study of the trend of events, it was discovered that the task of records management is too much to be effectively maintained manually. In recognition of this observation and the acceptance of the cause of the shortcomings, it then becomes imperative that computer application should be employed to manage the required information.

The computerisation will, therefore, ensure that all the necessary data are entered into the computer system. In addition, computer will be used to manage the information as up-to-date data will be entered into the system when necessary.

1.1 EDUCATION, TRAINING AND DEVELOPMENT

In the development process of human resources, it is necessary to understand the different intervention that can be applied in order to achieve improved performance.

These are as follows:

i. ***EDUCATION***

This provides basic or advanced knowledge and skills required for a wide range of management, supervisory and operative jobs. In most cases, it is a pre-employment activity designed to widen or change the

scope of competence and responsibilities. Education is not strictly to solve training needs. It is however,. a response to specify development needs.

ii. ***DEVELOPMENT***

Development is a process of providing learning opportunities for improving competence and performance. A developmental process involves such activities as career planning, planned promotion, coaching and counselling, self-development, action learning, etc.

iii. ***TRAINING***

This involves the acquisition and improvement of practical skills. It takes place off and on-the-job. Training and development are closely related to the extent that it is always more convenient to refer to improvement of performance as training and development. Generally, training is designed to fill an identified improvement gap.

1.2 NIGERIAN EDUCATIONAL SYSTEM

Every educational system is a product of the economic, social and political situation of the country of which it is part. The Nigerian Educational System has its roots in the colonial era and has grown to meet these economic, social and political challenges and these themselves have interacted and remoulded the educational system.

In general, education implies the transmission of what is worthwhile to those who become committed to it. In other words, a complete and generous

education fits a man to perform justly, skillfully and magnanimously. Education for living is the training for the development of new attitudes and skilled manpower production. Therefore, the acquisition of some skills and the recognition of the value of manual or mechanical work led to the establishment of educational centres and training institutes in the country. The training institutes and centres in Nigeria are listed as follows:

* Universities
* Colleges of Education
* Colleges of Agriculture
* Monotechnics

Specifically, the Nigerian educational system can be presented in two categories namely:

- Vocational Education and
- Technical Education.

Each of these two forms of education is discussed below:

i. *VOCATIONAL EDUCATION*

This is any form of education whose primary purpose is to prepare persons for employment in recognised occupations. Vocational education provides the skills, knowledge and attitudes necessary for effective employment in specific occupation. It prepares an individual for

employment in any occupation for which specialised education is required for which there is a societal need, and which can most appropriately be acquired in the school.

ii. ***TECHNICAL EDUCATION***

Technical education is a post-secondary vocational training programme whose major purpose is the production of technicians. This form of education leads to the acquisition of practical and applied skills as well as basic scientific knowledge.

1.3 HISTORY OF EDUCATIONAL DEVELOPMENT IN NIGERIA

Before the British intervention in Nigeria and establishment of formal education and institutions in the later part of the nineteenth century and early part of the twentieth century, education in Nigeria was mainly technical in nature, otherwise referred to as traditional education. The basis of this form of education is that young men acquired the rudiments of an occupation from their parents or from expert craftsmen to whom they were apprenticed.

The first educational institutions in Nigeria were established by Christian Missions in 1842 at Badagry and Abeokuta. By 1909, only two institutions were offering some forms of vocational/technical education in tailoring, carpentry, metalwork, weaving and leather work. The first institution that bore the technical concept of education was Yaba Higher College founded in 1930. This institution offered courses in Medicine, Agriculture, Engineering and Teachers' Training.

The contributions of science and invention have not only made tremendous production possible, but have called increasingly for systematic training of technicians. The progress of science and invention has resulted in an increased demand for the technician and inventor and at the same time, has created greater number of new jobs and profoundly modified the process of many old jobs.

The higher demand for intermediate and higher technical manpower became very serious during the 1970 decade following the end of the civil war and consequently, the massive reconstruction and rehabilitation work that ensued. Therefore, to enhance the standard of vocational/technical education in Nigeria, the Federal Government changed her system of education from 7-5-4 system to 6-3-3-4 system.

The 7-5-4 system of education implies a mode of education where seven (7) years is spent in the Primary School, five (5) years is spent in the Secondary School and four (4) years in Post-Secondary School. The 6-3-3-4 system, on the other hand, allows for six (6) years in Primary School, six (6) years in Secondary School which is divided into two equal halves of three (3) years in the Junior Secondary School and the remaining half in the Senior Secondary School as well as four (4) years for Post-Secondary (Tertiary) Education.

However, the new educational system in Nigeria, the 6-3-3-4 system was introduced to have proper place for vocational and technical education from post-primary level to post-secondary level. In order to achieve the above

objective, the Federal Government's National Policy on Education prescribed elements of technical education and skills training for all pupils for the six years primary education. In addition, the three years of the Junior Secondary School is designed to prepare the students for full pre-vocational training in the basic technical occupations. Such training is to provide a strong technical orientation for the Junior Secondary Schools' pupils that do not have aptitude or capability for the grammar school type of Senior Secondary School education. The next three years in the Secondary School is designed to enable the pupils consolidate on their line of profession, while the post-secondary education is to make them professionals.

1.4 OBJECTIVES OF THE NIGERIAN EDUCATIONAL SYSTEM

Since education is an instrument of national stability and development, it is not surprising that the effective objectives were incorporated into National Policy on Education for Nigerian Schools. These effective objectives include:

i. Provision of basic vocational/technical knowledge and skills necessary for agricultural, industrial, commercial and economic development.

ii. Provide people who can apply scientific knowledge to the improvement and solution of environmental problems for the use and convenience of man.

iii. Provide trained manpower in applied sciences, technology and commerce particularly at sub-professional grades.

iv. Give an introduction to professional studies in engineering and other technologies.

v. Give training and imparting the necessary skills leading to the production of craftsmen, technicians and other skilled personnel who will be enterprising and self-reliant, that is, self-employed.

vi. Enable young men and women to have an intelligent understanding of the increasing complexity of technology.

vii. Equip young people with certain basic job skills and knowledge with the ultimate aim of motivating them to develop their potentials and extending their basic skill and knowledge.

viii. Help people to develop their personal skills needed at work and in adult life generally.

ix. Help people to assess their potential and to think realistically about what jobs and their future prospects.

1.5 OBJECTIVES OF THE STUDY

The objective of this study is to critically study and analyse the computer approach to record management of SIWES activities in ITF. This is required in order to design a new system through an understanding of the shortcomings of the manual operation. The main objectives are outlined as follows:

a. To study and analyse the activities of the SIWES activities in ITF.

b. To observe the problems associated with the existing system in the organisation in order to identify the need for computerisation.

c. To provide a logical and physical design of computerisation need of the task required.

d. To provide a manual that will describe the various operations of the proposed system and its mode of operation.

e. To eliminate delays involved in the preparation of various reports.

1.6 METHOD OF DATA COLLECTION

The major source of data is based on both secondary and primary sources. The information from secondary source include published text such as newspapers, magazines, textbooks, professional journals, seminar and conference papers, government publication and a host of others which may be considered relevant to the study.

However, the primary source of data are information gathered directly by the user through direct study and questioning. For this study, the methods to be used in gathering primary information are stated as follows.

i. **OBSERVATION**:- This method is used to directly study the existing operation through direct participation.

ii. **INTERVIEW**:- This is used mainly to confirm some information gathered. It is also used to obtain information or suggestions that can be considered relevant to the proposed system.

CHAPTER TWO

SIWES AND TECHNOLOGICAL DEVELOPMENT

2.0 HUMAN RESOURCE DEVELOPMENT

Human resource or manpower can be referred to as the most important factor of production. Others are the material and financial resources. The development of human resource can be defined as the process of increasing the knowledge, skills and capabilities of all the people in a society.

All resources are scarce. This is in the sense that there are not enough of them to meet with the challenges of economic development. Most developing nations can be regarded, in a sense, as labour-rich because of the high birth-rate coupled with inadequate provision of employment and investment opportunities. Generally, the workers in any given establishment vary in their level of:

i. Knowledge

ii. Skills

iii. Work habits (attitude)

The experience of most developing countries is that the shortage of skilled and executive manpower could be a constraint in the implementation of developing projects. It is therefore necessary to pay attention to:

i. The expansion of employment opportunities through the implementation of employment generating programmes.

ii. Provision of industrial attachment programmes, occupational guidelines and similar schemes for the improvement of human capabilities.

iii. Strengthening of existing educational and training facilities and establishment of additional ones in identified areas of need.

Human factor plays a significant role in production as other resources are developed through human efforts. It is therefore necessary to:

i. Control, decrease and increase health and nutrition programmes both to make people happier and to be more productive.

ii. Educate people to make them more productive and more knowledgeable workers.

One important source of national development is the better utilization of human resources. It is common that in the developing countries there is a large pool of human resources doing nothing because they are not well trained. Therefore, the key to development is the development of human capital. Investing in education is an approach towards the development of human resource. Investment in human capital can take a variety of forms which include:

i. **FORMAL SCHOOLING**

This ranges from general education to university education. At this stage, the relevant knowledge in arts and science is required. This is pre-requisite to meaningful skills training.

ii. **ON-THE-JOB-TRAINING**

This consists of acquiring skills at the work environment. This can be accomplished through formalized apprenticeship programmes. Skill is usually more of a function of time spent on the job and consequent exposure to the work situation over a number of years than it is the result of formal or structured training programmes.

iii. **JOB MARKET INFORMATION**

It is partly a function of spreading information about job vacancies and potential candidates.

iv. **PREVENTION OF BRAIN DRAIN**

Brain-drain is an international population movement from countries of under-employment to countries where there are employment opportunities. The number of Scientists, Engineers and Physicians born in poor countries and working in affluent ones is usually of great concern to policy makers.

v. **HEALTH CARE PROGRAMME**

It is usually said that health is wealth. Only healthy human resource can productively exploit and utilize a nation's natural and other material resources.

Effective human resource or manpower utilization is putting the right man in the post or job where his knowledge, skills and attitude can be properly made use of to achieve optimal results and set objectives. Hence, productive manpower is that which has been trained and retained for effective performance.

2.1 THE NEED FOR INDUSTRIAL TRAINING PROGRAMME

Tertiary education in Nigeria has witnessed an astronomical growth in the past three decades. By 1962, for example, there were only five full-fledged Universities, but today, there are 37 Universities. Also, the number of Polytechnics/Colleges of Technologies has risen to 35 and there are now 55 Colleges of Education in the country. As expected, the student enrolment in these tertiary institutions is correspondingly high.

It is of great interest that a good number of courses run by these institutions have practical applications. For example, 29 Universities offer degree programmes in Engineering while nearly all courses in the Polytechnics are practically oriented. As for the Colleges of Education, the practical content of the courses has wide variations.

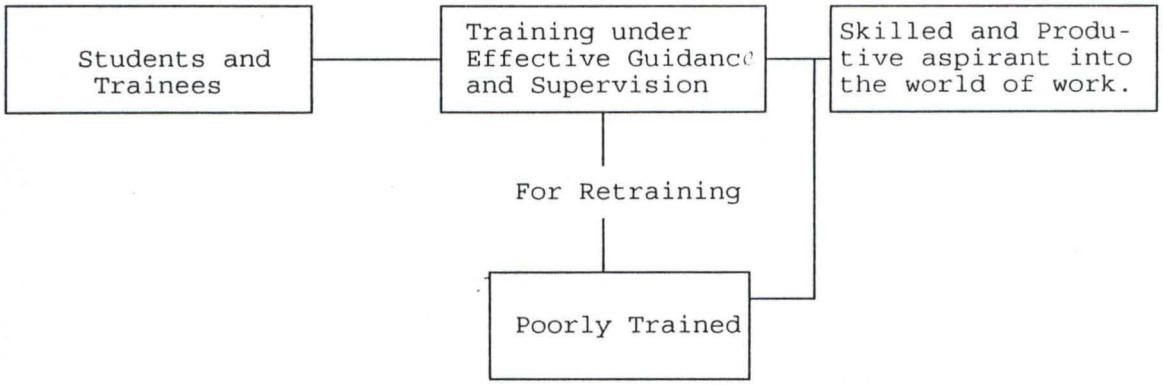
However, there has been a great deal of concern at the rising level of poor employment prospects of the products of our educational institutions especially at the tertiary level. After a careful examination, of available information, the trend has shown that the economy was rejecting our institution's graduates because they lack the appropriate basic skills.

The government and its agencies have identified this problem and for this reason, a policy of acquiring industrial training while informal education system was adopted. It is important to consider the relevance of practicals and training through industrial attachment as a means of preparing our youths for the world of work.

Strong links between education and industry are essential for preparing young people to be enthusiastic and efficient employees. Such links are a positive response to educational initiatives to strengthen links with the commerce and industry sub-sectors. The two main forms required for effective preparation for the world of work are the educational institution and industry with capable manpower to teach and train respectively.

In view of the limited facilities in both educational institutions and the industrial establishments, there is need to recognise our educational system in response to national manpower needs. In an economy that is fast requiring more sophisticated technology such as the computers, new machines, etc, it is vital to employ workable educational and training policies. Below is a chart showing the inter-relationship between the educational institutions, the training organisations and the industrial establishments.

LINK BETWEEN EDUCATION, TRAINING AND INDUSTRY



There is no doubt that the rate of growth and development of any economy depends on the available natural resources and the quality of life of her labour force, as well as the economic system in existence. In this case, such issues as the machines, the equipment, the labour force and other facilities that can enhance the realisation should be well addressed. With regards to manpower, the level of its preparedness for the world of work through education and training, dictates, in turn, the potential growth rate of the economy. It is therefore necessary to define appropriate objectives for training which include:

i. Provision of better opportunities to individuals to develop their skill and use the potential to the full.

ii. Improving the quality of training requirements for the industries.

iii. Ensuring appropriate training for those likely to be absorbed in the world of work.

A link between formal education and the industry provides a useful avenue for employers to access properly the training needs of their trainees. It also provides individual employer to access information about training standards and techniques.

2.2 WORK EXPERIENCE IN OTHER COUNTRIES

Students industrial training programme is given different names all over the world. For example in the United Kingdom, it is commonly referred to as sandwich programme while in the United State of America and Canada, it is commonly called cooperative Education Programme. Here in Nigeria, students Industrial Training Programme is normally called Students Industrial Work Experience scheme (SIWES).

Whatever name is given to any student industrial training programme, there is usually a unified objective i.e. to blend theory with practice. In other words, the students industrial training programme is to ensure that affected students are given practical experience on real jobs while they are still in school.

In order to harmonise the different terminologies used for students industrial training programme, the term **"cooperative Education"** is now globally accepted. The universally accepted definition of Cooperative Education is a strategy of applied learning which is a structured programme, developed and supervised by an educational institution in which relevant productive work is an integral part of a regular students academic programme and is an essential component of the final assessment for an award, such programme should

commence and terminate with an academic period and the work experience component should involve productive work and should comprise a resonable proportion of the total programme.

However, the practice of work experience varies from country to country but essentially, they have the same goal.

2.3 THE INTRODUCTION OF SIWES PROGRAMME

In Nigeria, student industrial training programme was not formally harmonised until 1973 when the Industrial training fund (ITF) established what is now known as students Industrial Work Experience Scheme (SIWES). The Industrial Training Fund which was established by Decree No. 47 of 1971 has the aim of promoting and encouraging the acquisition of skills in industry and commerce with a view to generating a pool of indigenous trained manpower sufficient to meet the need of the economy. It was in 1973 that the Fund published its policy statement No.1 which included a clause dealing with one issue of practical skills among locally trained professionals. Section 15 of the policy statement states as follows:

> "Great emphasis will be placed on assisting certain products of post secondary school system to adopt orientate easily to their possible post-graduation job environments. The fund will seek to work out a cooperative machinery with industry, whereby students in institutions of higher learning may receive training in industry or commerce comparable with their areas of study."

The Fund will support such mid-career attachments by contributing to the allowance payable to the students.

Therefore, a formalised students industrial training programme commenced in Nigeria with ITF support in 1973.

2.4 OBJECTIVES OF SIWES

Specifically, the objectives of the students Industrial Work Experience Scheme (SIWES) are to:

i. Provide an avenue for students in institutions of higher learning to acquire industrial skills and experience in their course of study, especially in Engineering and Allied fields.

ii. Prepare students for industrial work situation they are to meet after graduation.

iii. Expose students to work methods and techniques in handling equipment and machinery that they may not be available in educational institutions.

iv. Make the transition from school to the world of work easier, and enhance students contacts for later job placement.

v. Provide students with an opportunity to apply his knowledge in real work situation thereby bridging the gab between college work and actual practice.

vi. Enlist and strengthen employers involvement in the entire educational process of preparing students for employment in Industry and Commerce.

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.0 INTRODUCTION

The analysis and design of the proposed system is the major task of this section. In this vein, the analysis of the present record keeping system of the students SIWES programme will be carried out in order to evolve the basis and operation of the computerised system.

In the light of this, issues considered in this section also include the logical design in the form of analysis of the current system and the design of the new system. The design is considered in terms of input and output specification and formats, the description of the language use for the software development, and the design of relevant files required for the proper operation of the proposed system.

3.1 CURRENT SYSTEM

All these problems and many more forms the basis of the need for the computerisation of the SIWES operation where it is expected that computers would be placed at the appropriate points in the organisation for the purpose of information sharing and update at any time.

3.2 BASIS OF SYSTEM DESIGN

With the analysis stated above, the intended system is expected to meet up the requirement of the organisation. In this case, a record management program would be developed to meet the following designed objectives:

i. The program must provide every level of organisation activities with the most accurate and visible information in a timely and understandable manner.

ii. The program should increase the productivity of the administrative functions through the identification and addition of improved and responsive system, techniques and equipment which enlarge information potential, reduce records and files requirements, expand dissemination capacity and effect cost-savings.

iii. The program must protect the organisation's assets by preserving essential and valuable information vital to the continued existence of the organisation.

Successful attainment of the above stated objectives depends largely upon the competence and communicative skills of the record management professionals. It is their ability to understand and be relevant to the need of management at every significant level that will determine the extent to which they enjoy the confidence and support vital to their work.

In addition to the above objectives, the software would be designed to be users friendly. In this way, the interaction by the user will be through menu (menu-driven system) whereby the system will always prompt the user for the next action. This will continue until the required job is performed.

3.3 PROPOSED SYSTEM REQUIREMENT

The requirement of the proposed system is expected to be met by the application of a Database Management System (DBMS). This implies that a database package would be used for the software design.

DBMS is a collection or suite of programs used for the purpose of maintaining and manipulating a database. A database is taken to be a storage bank for data. With the above definition, a DBMS is a software that perform the following functions on a database.

i. Add records

ii. Modify records

iii. Display records

iv. Delete records

v. Organise records

vi. Summarise records

vii. Extract records

viii. Print records.

In addition, DBMS is a term used to represent a category of packages which perform the above functions.

Given the above, it should be noted that DBMS is a collection of packages such as Foxpro, dBASE, etc.

3.4 INPUT AND OUTPUT SPECIFICATION

In software development, the required output presented in the form of report determines the input data required. This is because some of the information on the report will have to be captured via the use of input form.

The proposed system is expected to produce reports such as Monthly Production details and Weekly and Monthly Sales reports.

The Monthly Production report will contain details of production for a month while the Sales report will contain the details of sales within the stipulated period of time.

In view of the above output requirement, there are two forms of input data that would be required into the proposed system. These are the Production Data and Sales Data. The input for the Production Data would be expected to be activated immediately goods are delivered to the warehouse via the use of a Delivery Note. The input for the Sales Data, on the other hand, would be activated at the point when sales is initiated with the Sales Invoice as source document. In this way, the necessary input is supplied to the system.

3.5 DATABASE FILES DESIGN

Database file design is the process of identifying data needs of an operation as well as creating and defining the structure of files. A database file

is a file used in DBMS environment to store data for the purpose of future retrieval.

However, in the design of the proposed system, three database files would be required for the efficient operation of the system. These are listed as follows:

INS.DBF, PROGRAM.DBF and SIWES.DBF.

The detail description of each of the above files are as follows:

INS.DBF

A database file that contains information about all the institutions of higher learning registered with ITF. It contains details such as code and name of all the institutions. The structure of this file is as shown below:

S/NO	FIELD NAME	TYPE	WIDTH	INDEX
1	Scode	Character	3	N
2	Sdesc	Character	40	N

PROGRAM.DBF

A database file that contains information about various SIWES programme under ITF and their details such as Programme Code, Programme Name, Period of the Programme and Allowance. The structure of this file is as shown below:

S/NO	FIELD NAME	TYPE	. WIDTH	INDEX
1	Pcode	Character	5	N
2	Pname	Character	40	N
3	Period	Numeric	2/0	N
4	Allce	Numeric	9/2	N

SIWES.DBF

A database file that contains the details of all the SIWES programme that are currently being undertaken by students of various institutions. The structure of this file is as shown below:

S/NO	FIELD NAME	TYPE	. WIDTH	INDEX
1	Sregno	Character	5	N
2	Scode	Character	3	N
3	Sdesc	Character	40	N
4	Pcode	Character	5	N
5	Pname	Character	40	N
6	Period	Numeric	3	N
7	Allce	Numeric	9/2	N
8	Stdno	Numeric	5/0	N
9	Cdate	Date	8	N
10	Tdate	Date	8	N

CHAPTER FOUR

SYSTEM IMPLEMENTATION

4.0 INTRODUCTION

The development of a software as was done in the last chapter requires its application and implementation. This is done in order to use the system for the purpose it was designed.

However, the implementation of a system requires recommendation on the following:

* The proposed hardware configuration and environment.
* The required application packages for effective computerisation of the organisation.
* Software testing for the purpose of discovering logic errors.
* The changeover procedure require for the purpose of continuity and reliability.
* The reference manual and the mode of interaction with the system by the potential users.

4.1 COMPUTER HARDWARE SPECIFICATION

The success of the later researches and developments has led to the introduction of computer hardware of tremendous speed, great RAM (Random Access Memory) and high disk storage space. This has made it possible for

computer users to have choice from which an appropriate one can be selected in order to further enhance the capabilities of the system.

However, the required hardware for this newly developed software is a computer with the following configuration:

Pentium II 450 Intel Celeron

64MB RAM

6.4GB Hard Disk

14" SVGA Colour Monitor

3.5" Disk Drive

44X CD-ROM Drive

Windows 98 Keyboard

Mouse & Mouse Pad

Software Pre-installed

The above configuration is recommended so that the speed of the software will be complemented. This will result into a greater efficiency in the organisation's operation as enquiry can be made and the response gotten within the shortest possible time.

Other peripheral required is an EPSON Printer for the purpose of generating the required report. The model of the required printer should not be less than:

ESPON LQ 2180.

As regards the Uninterrupted Power Supply (UPS), APC Back-Up Pro 720 VA is recommended for the computer. This has the capabilities of holding on to power for 45 minutes.

4.2 SOFTWARE REQUIREMENT

The computerisation of SIWES activities record keeping system in the Industrial Training Fund is expected to form the basis of computer application in the organisation. Other areas of computer application are:

* Text and report preparation
* Calculations
* Data analysis
* Graphical representation of data
* Data storage

For these various purposes highlighted above, already made application packages can be purchased and installed on the computer.

An integrated package, specifically, Microsoft Office Family is required which will include Microsoft Word, Microsoft Excel and Microsoft PowerPoint. The Microsoft Word is expected to be used for text and report processing and preparation. Microsoft Excel will be required for calculations, data analysis and graphical representation of data. Microsoft PowerPoint will be used for designing. As a result of this, the latest version of the package Microsoft Office 2000 is recommended.

dBASE IV package is also recommeded for installation in the organisation. This package will be used for record storage and the program modification. The installation of dBASE IV becomes necessary because of the dynamic nature of the government policy on the organisation. Therefore, as changes are carried out, necessary modification would be easily performed on the software.

However, the mode of usage of these recommended packages would be performed during training aspect of this computerisation process.

4.3 SYSTEMS TESTING

Systems testing is the stage of implementation which is aimed at ensuring that the system works accurately and efficiently before life operation can commence. Program testing, however, is an integral part of systems testing where the program is tested in order to confirm that there is no logic error inherent in the program design. Once the program has been fully ascertained, the general testing of all the procedures would be done.

Specifically, this stage require both the logical and physical designs to be thoroughly and continually examined to ensure that the new system works when implemented. The testing, therefore, serves as a confirmation that the design is correct. It is also an opportunity to show the potential users that all is well with the new system.

Given the above objective, a user acceptance testing was performed on the new system where the users form an integral part of the testing procedure. It was done using a set of previous data which was entered into the system.

The result was compared with the result obtained from that of the manual operation and they were found to be the same.

In view of this, it was observed and concluded that the new system is working properly. This gives the required confidence on the installation of the systems with the hope and belief that it will enable the organisation achieve its set objectives in terms of managing SIWES operations.

4.4 SYSTEM CONVERSION

There are basically three methods of changeover from one system to another. They are:

* Direct changeover
* Parallel changeover
* Pilot running changeover

i. DIRECT CHANGEOVER: This method is the wholly replacement of the old system by the new system. The mode of replacement is at once without consideration for bit by bit introduction. It is always recommended when the computerisation is less complex and not large.

ii. PARALLEL CHANGEOVER: In this case, the old and new systems run concurrently using the same inputs. The outputs are compared and reasons for their differences are resolved. Outputs from the old system continue to be distributed until the new system has proved satisfactory.

At this point, the old system is discontinued and the new system takes its place. This mode of changeover is very reliable, but costly to use.

iii. PILOT RUNNING CHANGEOVER: This involves a gradual replacement of the old system by the new one. The bit by bit changeover continues until the old system is completely replaced. Pilot running is always recommended for large computerisation in order to reduce the complexity that would arise as a result of computer application.

Given the above options, a parallel changeover is recommended for the introduction of this new system because of its reliability and simplicity.

4.5 COST AND BENEFIT ANALYSIS

This will be discussed under two subheadings namely:

* Cost analysis of the system
* Benefit of the system

4.5.1 COST ANALYSIS OF THE SYSTEM

(a) **DEVELOPMENT COST** This is sketched as follows for three working weeks or one hundred and fifty man hours:-

i.	Systems Analysis/Design	₦150,000
ii.	Software Development & Implementation	₦85,000

iii. Equipments

* Computer

1 No Pentium II 350 MH_3 64KB RAM 4.3GB Hard Disk SVGA Colour Monitor 3.5" Disk Drive CD-ROM Drive Windows 95 Keyboard Mouse & Mouse Pad Windows 98 Software Pre-installed	₦255,000

* Computer Printers

1 No. Epson Printers (DFX 5000)	₦150,000

* Uninterrupted Power Supply

1 No. APC Back Up Pro	₦80,000

* Installation Cost (Software)	₦100,000

* Procurement & Installation of 2 Nos.

Air Conditioners (₦150,000.00 each)	₦300,000

* Personnel Training

2 Operators @ ₦17,500.00 for 2 months	₦35,000
Total Development Cost	**₦1,155,000**

(b) **SYSTEM OPERATING COST**

i.	Program Maintenance Per Annum	₦75,000
ii.	Equipment Maintenance Per Annum	₦120,000
iv.	Supplies of Computer Stationeries	₦120,000

v. Labour cost

- 1 No. Systems Analyst/Programmer Per Annum ₦120,000
- 2 Nos. Computer Operators (₦36,000 Per Annum/Operator ₦72,000

vi. Miscellaneous expenses ₦25,000

Total System Operating Cost **₦582,000**

Grand Total of (a) and (b) = ₦1,737,000

4.5.2 BENEFITS OF THE SYSTEM

Specifically, the Industrial Training Fund would derive the following benefits from this newly designed system.

i. Enhance the efficiency operation of the organisation in terms of information and retrieval.

ii. Creation of speedy ways of responding to enquiry in order to provide ways of formulating policy.

iii. Avoidance of regular problems such as loss of data, fraud, etc.

iv. Creation of speedy ways of generating reports from the system.

v. Maintenance of data security

vi. Allow for the possibility of carrying out major changes in the design of the system as the need arises. This is because the new system is fully documented.

CHAPTER FIVE

DOCUMENTATION AND RECOMMENDATION

5.1 SOFTWARE DOCUMENTATION

Software documentation is the description of how a package works. This is required to ensure a better understanding of the system by the users. It is also used as a reference manual incase the user runs into minor problem. The documentation of the new system provides information on how the system can be started and its operation.

5.2 STARTING THE SYSTEM

The execution of the programs required the installation of dBASE IV into the system. The source program would then be installed into a directory (e.g. ITF) on the hard disk (i.e. drive C). To start the system is as follows:

* Type CD\ITF + <ENTER> Key
* Type DBASE + <ENTER> Key
* At the dot prompt of dbase IV, type DO ITF + <ENTER> Key

The execution of the above steps allows the first level menu appear on the screen from which the user would select an appropriate choice.

5.3 MENU DESCRIPTION

The first level menu consists of five options as displayed in Figure 1 in Appendix I. Each of these is itemised and discussed as follows:

Siwes Registration Detail

Institutions Update

Programme Update

Report Printing

System Exit

Each of these is discussed below:

SIWES REGISTRATION DETAIL: This menu enables the details of SIWES programme entered into the system. It has 5 suboptions as shown in Figure II which are New Registration Detail for new registration, Change Registration Detail for changing already entered details, Display Registration Detail for viewing, Cancel Registration Detail for deleting, Submenu Exit for exitting the submenu. The format of these suboptions are represented by Figures III - VI.

INSTITUTION UPDATE: This menu enables the details of institutions entered into the system. It has 5 suboptions as shown in Figure VII which are New Institutions Detail for new registration, Change Institution Detail for changing already entered details, Display Institution Detail for viewing, Cancel Institution Detail for deleting, Submenu Exit for exitting the submenu. The format of these suboptions are represented by Figures VIII - XI.

PROGRAMME UPDATE: This menu enables the details of all the available programmes entered into the system. It has 5 suboptions as shown in Figure XII which are New Programme Detail for newly introduced programme, Change Programme Detail for changing already entered details, Display Programme Detail for viewing, Cancel Programme Detail for deleting, Submenu Exit for exitting the submenu. The format of these suboptions are represented by Figures XIII - XVII.

REPORT PRINTING: This is an option used for report production. It is used to generate various report form the computerised system.

SYSTEM EXIT: This menu is used to exit the system.

5.4 CONCLUSION

The continued substitution of a computer-based system for manual procedures has, in modern days, become a world wide affairs. This is due to the relevance of computer application in virtually all aspects of human endeavour. The substitution of the manual system with computers is, however, intensified by the capability of computers in performing a given set of procedures with all necessary accuracy. It is not subject to committing errors, and its ability of accomplishing any task with high speed.

Therefore, it could be stated that the introduction of a computer based system in storing information about the SIWES activities in Industrial Training Fund would enhance the operational efficiency of the organisation.

5.5 RECOMMENDATION

The need for installation of the proposed system is to ensure the maximization of its benefits. However, for the system to be of immense benefits to the Industrial Training Fund, the following recommendations should be adopted.

1. **MANPOWER REQUIREMENT**

   The use of computer in an organisation requires the services of trained professionals in Computer Science. As a result of this, it would be recommended that trained computer professionals needs to be recruited. Some of the old staff like the typist will have to be trained on the use of the Word Processing Packages. The computer professional to be employed needs to be knowledgeable about the concept of Database Management System. This is to ensure future modification of the suite of programs that constitute this proposed system.

2. **TRAINING REQUIREMENT**

   There is the need for training of staff in the organisation on how to use the proposed system and other areas of computer application. This could take the form of organising seminars and workshops.

3. **SECURITY**

   In any computer-based system, there is the need for security in order to avoid both logical and physical problems. In view of this, people (both staff and outsider) should not be given any access into the computer room.

4. COMPUTER ENVIRONMENT

Normally, a computer environment should be air-conditioned. The organisation should provide a good cooling facility for the computer so as to ensure durability of the system.

However, it should be realised that the above recommendations need to be adopted in order to fully maximise the importance of the new system.

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APPENDIX I: SCREEN DESIGN AND PROGRAM OUTPUT

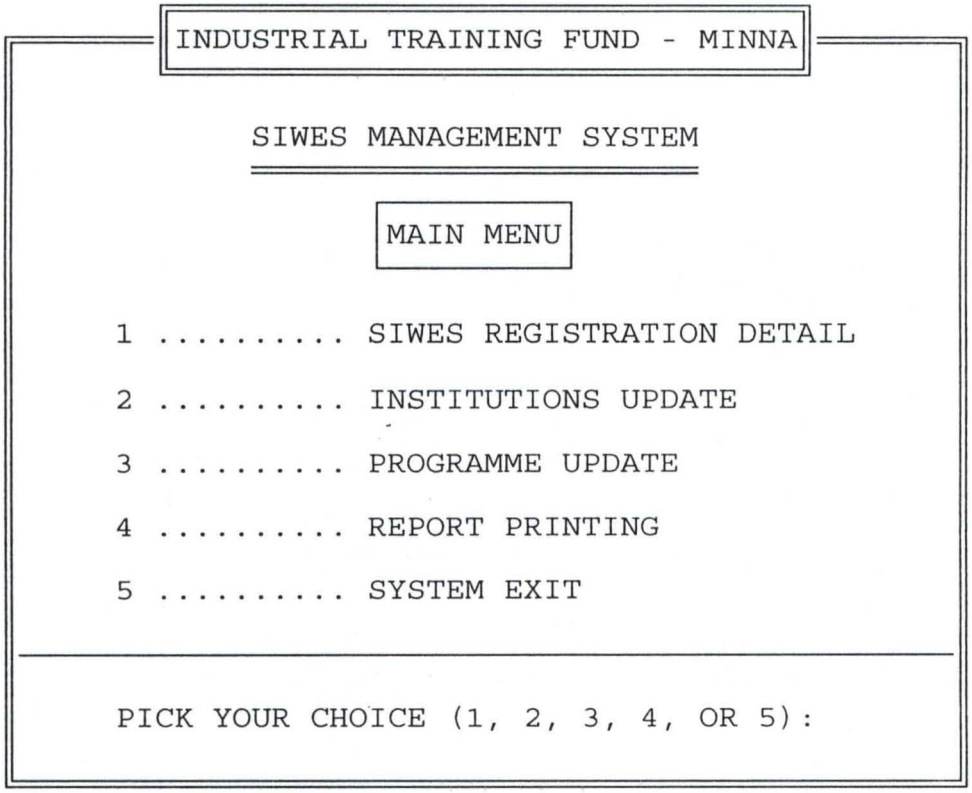

FIGURE I

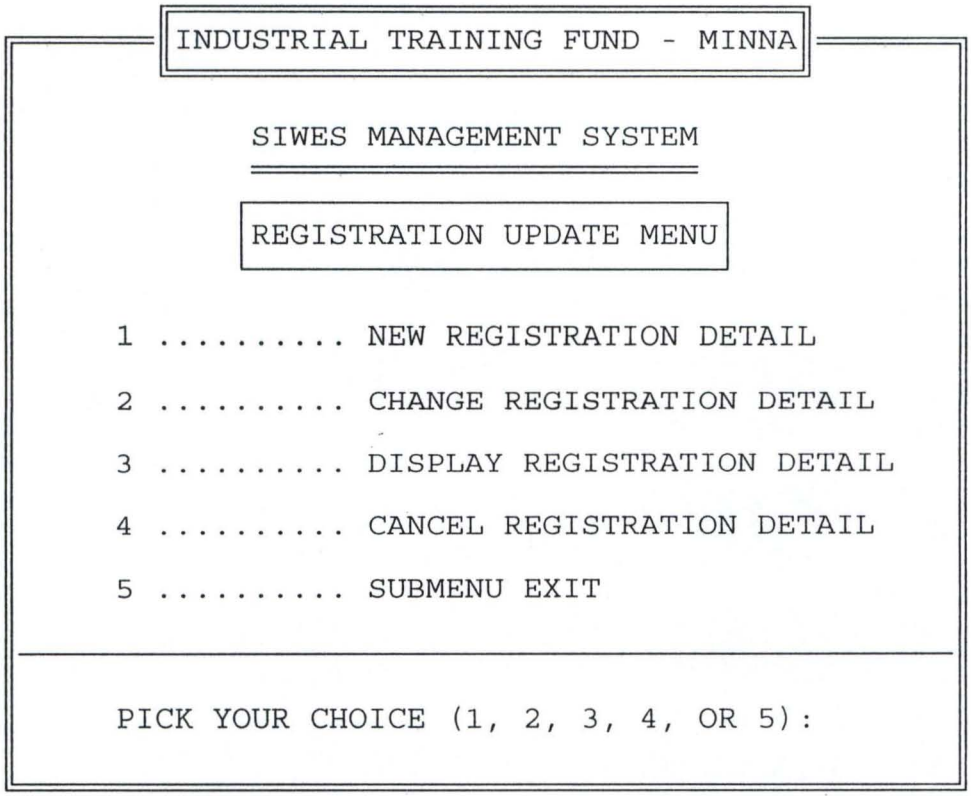
INDUSTRIAL TRAINING FUND - MINNA
SIWES MANAGEMENT SYSTEM
REGISTRATION UPDATE MENU
1 ..... NEW REGISTRATION DETAIL
2 ..... CHANGE REGISTRATION DETAIL
3 ..... DISPLAY REGISTRATION DETAIL
4 ..... CANCEL REGISTRATION DETAIL
5 ..... SUBMENU EXIT
PICK YOUR CHOICE (1, 2, 3, 4, OR 5):

FIGURE II

SIWES REGISTRATION - NEW DETAIL

IWES REGISTRATION NO (Press <ENTER> to Exit): SR/01

CHOOL DETAILS: (101) - FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

ROGRAMME DETAILS: (BE 2) - BACHELOR OF ENGINEERING 200 LEVEL

ERIOD: 12 WEEKS ALLOWANCE: # 6,000.00 NO OF STUDENTS: 2,345

COMMENCEMENT DATE: 11/08/99 TERMINAL DATE: 03/11/99

SAVE DATA? (Y/N):

FIGURE III

SIWES REGISTRATION - CHANGE DETAIL

IWES REGISTRATION NO (Press <ENTER> to Exit): SR/01

CHOOL DETAILS: (101) - FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

ROGRAMME DETAILS: (BE 2) - BACHELOR OF ENGINEERING 200 LEVEL

ERIOD: 12 WEEKS ALLOWANCE: # 6,000.00 NO OF STUDENTS: 2,345

COMMENCEMENT DATE: 11/08/99 TERMINAL DATE: 03/11/99

SAVE CHANGES? (Y/N):

FIGURE IV

SIWES REGISTRATION - DISPLAY DETAIL

IWES REGISTRATION NO (Press <ENTER> to Exit): SR/01

CHOOL DETAILS: (101) - FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

ROGRAMME DETAILS: (BE 2) - BACHELOR OF ENGINEERING 200 LEVEL

ERIOD: 12 WEEKS ALLOWANCE: # 6,000.00 NO OF STUDENTS: 2,345

COMMENCEMENT DATE: 11/08/99 TERMINAL DATE: 03/11/99

PRESS ANY KEY TO CONTINUE

FIGURE V

SIWES REGISTRATION - CANCEL DETAIL

SIWES REGISTRATION NO (Press <ENTER> to Exit): SR/01

SCHOOL DETAILS: (101) - FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

PROGRAMME DETAILS: (BE 2) - BACHELOR OF ENGINEERING 200 LEVEL

PERIOD: 12 WEEKS ALLOWANCE: # 6,000.00 NO OF STUDENTS: 2,345

COMMENCEMENT DATE: 11/08/99 TERMINAL DATE: 03/11/99

DELETE DATA? (Y/N):

FIGURE VI

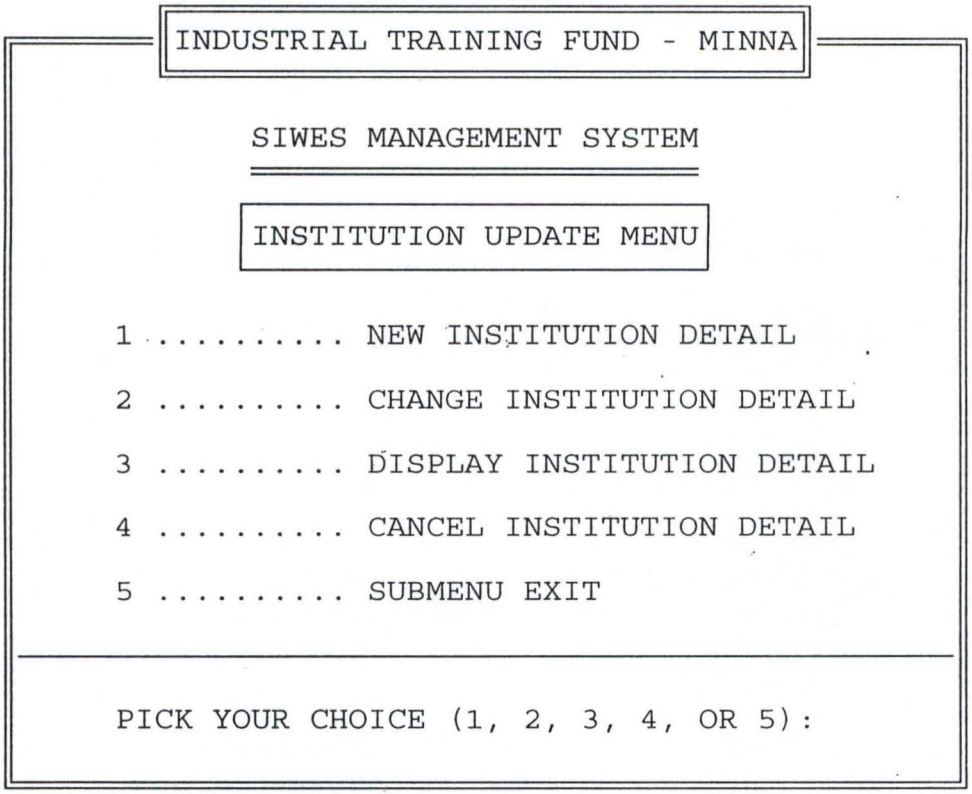
INDUSTRIAL TRAINING FUND - MINNA
SIWES MANAGEMENT SYSTEM
INSTITUTION UPDATE MENU
1 ..... NEW INSTITUTION DETAIL
2 ..... CHANGE INSTITUTION DETAIL
3 ..... DISPLAY INSTITUTION DETAIL
4 ..... CANCEL INSTITUTION DETAIL
5 ..... SUBMENU EXIT
PICK YOUR CHOICE (1, 2, 3, 4, OR 5):

FIGURE VII

SCHOOL REGISTRATION - NEW DETAIL

SCHOOL CODE (Press <ENTER> to Exit): 101

DESCRIPTION: FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

SAVE DATA? (Y/N):

FIGURE VIII

SCHOOL REGISTRATION - CHANGE DETAIL

SCHOOL CODE (Press <ENTER> to Exit): 101

DESCRIPTION FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

SAVE CHANGES? (Y/N):

FIGURE IX

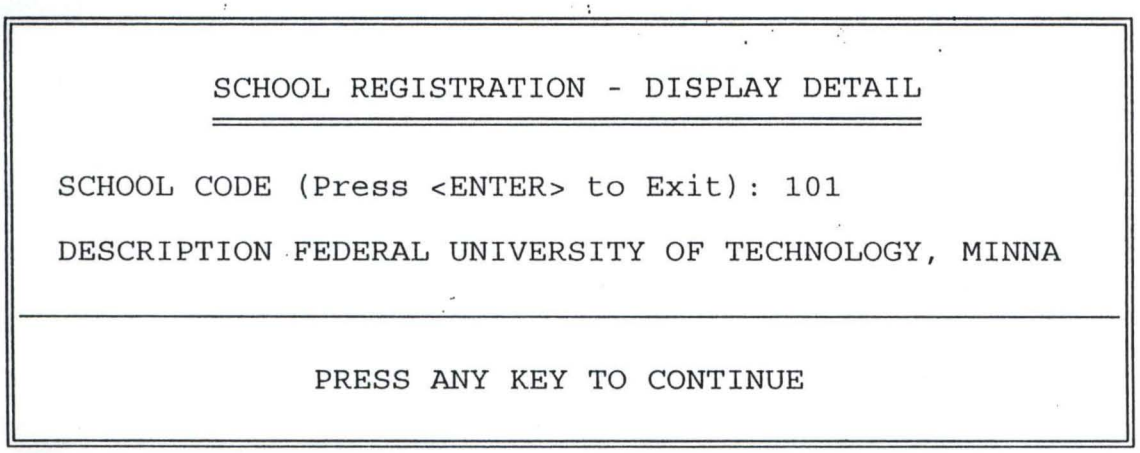
SCHOOL REGISTRATION - DISPLAY DETAIL
SCHOOL CODE (Press <ENTER> to Exit): 101
DESCRIPTION FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
PRESS ANY KEY TO CONTINUE

FIGURE X

SCHOOL REGISTRATION - CANCEL DETAIL

SCHOOL CODE (Press <ENTER> to Exit): 101

DESCRIPTION FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

DELETE DATA? (Y/N):

FIGURE XI

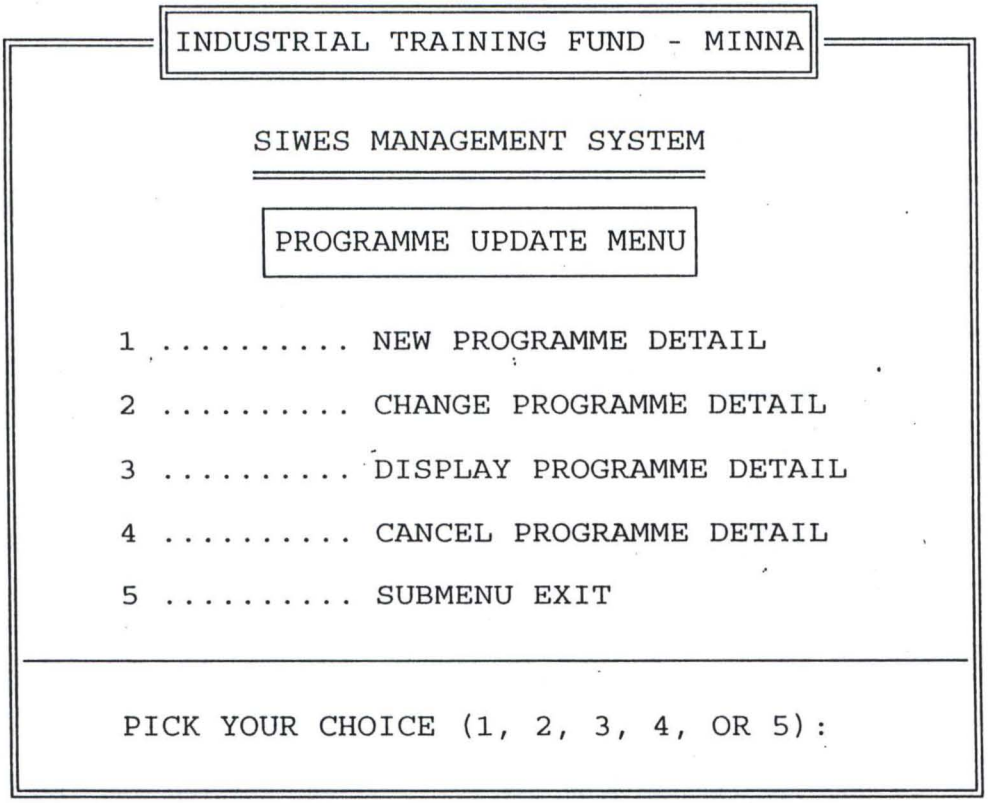
INDUSTRIAL TRAINING FUND - MINNA
SIWES MANAGEMENT SYSTEM
PROGRAMME UPDATE MENU
1 ..... NEW PROGRAMME DETAIL
2 ..... CHANGE PROGRAMME DETAIL
3 ..... DISPLAY PROGRAMME DETAIL
4 ..... CANCEL PROGRAMME DETAIL
5 ..... SUBMENU EXIT
PICK YOUR CHOICE (1, 2, 3, 4, OR 5):

FIGURE XII

PROGRAMME UPDATE - NEW DETAIL

PROGRAMME CODE (Press <ENTER> to Exit): BE 2

DESCRIPTION: BACHELOR OF ENGINEERING 200 LEVEL

PERIOD (in Weeks): 12 ALLOWANCE (in #): 6,000.00

SAVE DATA? (Y/N):

FIGURE XIII

PROGRAMME UPDATE - CHANGE DETAIL

PROGRAMME CODE (Press <ENTER> to Exit): BE 2

DESCRIPTION: BACHELOR OF ENGINEERING 200 LEVEL

PERIOD (in Weeks): 12 ALLOWANCE (in #): 6,000.00

SAVE CHANGES? (Y/N):

FIGURE XIV

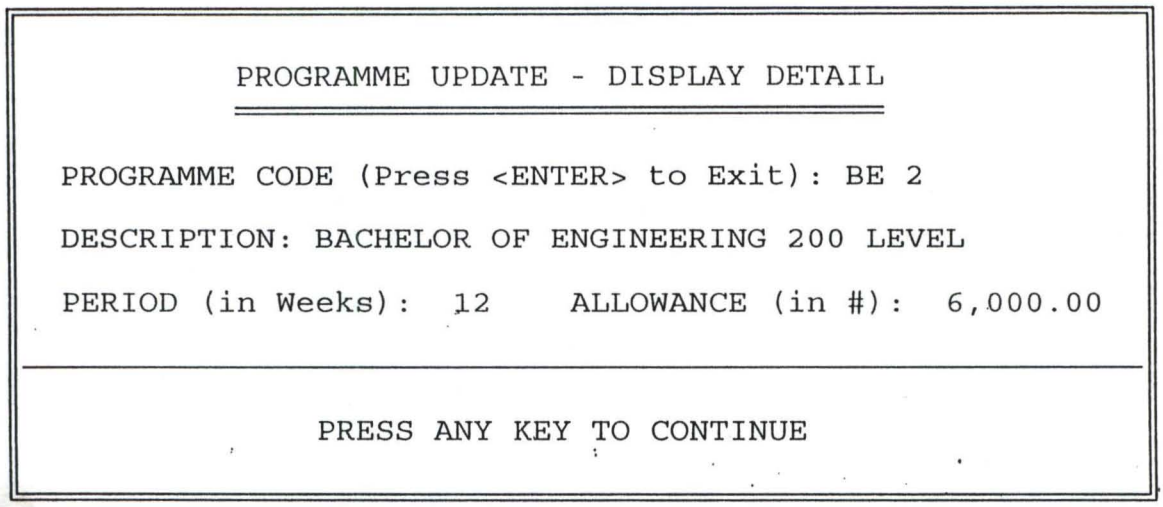
PROGRAMME UPDATE - DISPLAY DETAIL
PROGRAMME CODE (Press <ENTER> to Exit): BE 2
DESCRIPTION: BACHELOR OF ENGINEERING 200 LEVEL
PERIOD (in Weeks): 12 ALLOWANCE (in #): 6,000.00
PRESS ANY KEY TO CONTINUE

FIGURE XV

PROGRAMME UPDATE - CANCEL DETAIL

PROGRAMME CODE (Press <ENTER> to Exit): BE 2

DESCRIPTION: BACHELOR OF ENGINEERING 200 LEVEL

PERIOD (in Weeks): 12 ALLOWANCE (in #): 6,000.00

DELETE DATA? (Y/N):

FIGURE XVI

APPENDIX II (PROGRAM DOCUMENTATION)

SIWES.PRG

```
SET SCOR OFF
SET STAT OFF
SET TALK OFF
SET DATE BRIT
SET SAFE OFF
DO WHIL .T.
CLEA
  @ 1,15 TO 24,64 DOUB
  @ 1,24 say "INDUSTRIAL TRAINING FUND - MINNA"
  @ 0,23 TO 2,56 DOUB
  @ 4,28 SAY 'SIWES MANAGEMENT SYSTEM'
  @ 5,28 TO 5,50 DOUB
  @ 7,35 SAY "MAIN MENU"
  @ 6,34 TO 8,44
  @ 20,16 TO 20,63
  @ 10,21 SAY "1 ..... SIWES REGISTRATION DETAIL"
  @ 12,21 SAY "2 ..... INSTITUTIONS UPDATE"
  @ 14,21 SAY "3 ..... PROGRAMME UPDATE"
  @ 16,21 SAY "4 ..... REPORT PRINTING"
  @ 18,21 SAY "5 ..... SYSTEM EXIT"
  DO WHIL .T.
    C = SPAC(1)
    @ 22,21 SAY "PICK YOUR CHOICE (1, 2, 3, 4, OR 5):" GET C PICT '9'
    READ
    IF C='1' .OR. C='2' .OR. C='3' .OR. C='4' .OR. C='5'
      EXIT
    ENDI
  ENDD
  DO CASE
    CASE C = '1'
      DO REG
    CASE C = '2'
      DO INS
    CASE C = '3'
      DO PRO
    CASE C = '4'
      DO REP
    CASE C = '5'
      EXIT
  ENDC
ENDD
CLEA
RETU
```

REG.PRG

```
DO WHIL .T.
CLEA
 @ 1,15 TO 24,64 DOUB
 @ 1,24 say "INDUSTRIAL TRAINING FUND - MINNA"
 @ 0,23 TO 2,56 DOUB
 @ 4,28 SAY 'SIWES MANAGEMENT SYSTEM'
 @ 5,28 TO 5,50 DOUB
 @ 7,28 SAY "REGISTRATION UPDATE MENU"
 @ 6,27 TO 8,52
 @ 20,16 TO 20,63
 @ 10,21 SAY "1 ..... NEW REGISTRATION DETAIL"
 @ 12,21 SAY "2 ..... CHANGE REGISTRATION DETAIL"
 @ 14,21 SAY "3 ..... DISPLAY REGISTRATION DETAIL"
 @ 16,21 SAY "4 ..... CANCEL REGISTRATION DETAIL"
 @ 18,21 SAY "5 ..... SUBMENU EXIT"
 DO WHIL .T.
  C = SPAC(1)
  @ 22,21 SAY "PICK YOUR CHOICE (1, 2, 3, 4, OR 5):" GET C PICT '9'
  READ
  IF C='1' .OR. C='2' .OR. C='3' .OR. C='4' .OR. C='5'
   EXIT
  ENDI
 ENDD
 DO CASE
  CASE C = '1'
   DO NEW1
  CASE C = '2'
   DO EDIT1
  CASE C = '3'
   DO VIEW1
  CASE C = '4'
   DO ERASE1
  CASE C = '5'
   EXIT
 ENDC
ENDD
CLEA
RETU
```

NEW1.PRG

```
SELECT 1
 USE SIWES
SELECT 2
```

```
  USE INS
SELECT 3
  USE PROGRAM
SELECT 1
DO WHILE .T.
  CLEAR
  @ 2,3 TO 21,76 DOUBLE
  @ 17,4 TO 17,75
  @ 4,24 SAY 'SIWES REGISTRATION - NEW DETAIL'
  @ 5,24 TO 5,54 DOUBLE
  MSREGNO=SPACE(5)
  @ 7,5 SAY 'SIWES REGISTRATION NO (Press <ENTER> to Exit):' GET
MSREGNO PICTURE 'SR/99'
  READ
  IF MSREGNO=SPACE(5)
    EXIT
  ENDIF
  GO TOP
  LOCATE FOR SREGNO=MSREGNO
  IF FOUND()
    @ 19,15 SAY 'REGISTRATION DETAIL ALREADY ENTERED - PRESS ANY
KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
  SELECT 2
  DO WHILE .T.
    MSCODE=SPACE(3)
    @ 9,5 SAY 'SCHOOL CODE:' GET MSCODE PICTURE '@!'
    READ
    GO TOP
    LOCATE FOR SCODE=MSCODE
    IF .NOT. FOUND()
      @ 19,19 SAY 'SCHOOL CODE DOES NOT EXIST - PRESS ANY KEY'
      SET CONSOLE OFF
      WAIT
      SET CONSOLE ON
      @ 19,15 CLEAR TO 19,64
      LOOP
    ENDIF
    MSDESC=SDESC
    EXIT
  ENDDO
  @ 9,5 SAY 'SCHOOL DETAILS: ('+MSCODE+') - '
  @ 9,29 GET MSDESC
```

```
CLEAR GETS
SELECT 3
DO WHILE .T.
 MPCODE=SPACE(5)
 @ 11,5 SAY 'PROGRAMME CODE:' GET MPCODE PICTURE '@!'
 READ
 GO TOP
 LOCATE FOR PCODE=MPCODE
 IF .NOT. FOUND()
  @ 19,17 SAY 'PROGRAMME CODE DOES NOT EXIST - PRESS ANY KEY'
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
  @ 19,15 CLEAR TO 19,64
  LOOP
 ENDIF
 MPNAME=PNAME
 MPERIOD=PERIOD
 MALLCE=ALLCE
 EXIT
ENDDO
SELECT 1
MDAYS=7*MPERIOD
STORE 0 TO MSTDNO
STORE CTOD('  /  /  ') TO MCDATE,MTDATE
@ 11,5 SAY 'PROGRAMME DETAILS: ('+MPCODE+') - '
@ 11,34 GET MPNAME
CLEAR GETS
@ 13,5 SAY 'PERIOD:' GET MPERIOD PICTURE '999'
@ 13,17 SAY 'WEEKS'
@ 13,27 SAY 'ALLOWANCE: #'
@ 13,39 GET MALLCE PICTURE '99,999.99'
CLEAR GETS
@ 13,52 SAY 'NO OF STUDENTS:'
@ 15,10 SAY 'COMMENCEMENT DATE:'
@ 15,45 SAY 'TERMINAL DATE:'
@ 13,68 GET MSTDNO PICTURE '99,999'
@ 15,29 GET MCDATE
READ
MTDATE=MCDATE+MDAYS
@ 15,60 GET MTDATE
CLEAR GETS
@ 19,30 SAY 'SAVE DATA? (Y/N):'
DO WHILE .T.
 RESPONSE=' '
 @ 19,48 GET RESPONSE PICTURE '!'
 READ
```

```
    IF RESPONSE='Y' .OR. RESPONSE='N'
      EXIT
    ENDIF
  ENDDO
  IF RESPONSE='Y'
    APPEND BLANK
    REPLACE SREGNO WITH MSREGNO
    REPLACE SCODE WITH MSCODE
    REPLACE SDESC WITH MSDESC
    REPLACE PCODE WITH MPCODE
    REPLACE PNAME WITH MPNAME
    REPLACE PERIOD WITH MPERIOD
    REPLACE ALLCE WITH MALLCE
    REPLACE STDNO WITH MSTDNO
    REPLACE CDATE WITH MCDATE
    REPLACE TDATE WITH MTDATE
  ENDIF
ENDDO
CLOSE ALL
CLEAR
RETURN
```

EDIT1.PRG

```
SELECT 1
  USE SIWES
SELECT 2
  USE INS
SELECT 3
  USE PROGRAM
SELECT 1
DO WHILE .T.
  CLEAR
  @ 2,3 TO 21,76 DOUBLE
  @ 17,4 TO 17,75
  @ 4,23 SAY 'SIWES REGISTRATION - CHANGE DETAIL'
  @ 5,23 TO 5,56 DOUBLE
  MSREGNO=SPACE(5)
  @ 7,5 SAY 'SIWES REGISTRATION NO (Press <ENTER> to Exit):' GET
MSREGNO PICTURE 'SR/99'
  READ
  IF MSREGNO=SPACE(5)
    EXIT
  ENDIF
  GO TOP
  LOCATE FOR SREGNO=MSREGNO
```

```
IF .NOT. FOUND()
  @ 19,15 SAY 'REGISTRATION DETAIL DOES NOT EXIST - PRESS ANY KEY'
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
  LOOP
ENDIF
MSCODE=SCODE
MSDESC=SDESC
MPCODE=PCODE
MPNAME=PNAME
MPERIOD=PERIOD
MALLCE=ALLCE
MSTDNO=STDNO
MCDATE=CDATE
MTDATE=TDATE
@ 9,5 SAY 'SCHOOL DETAILS: ('+MSCODE+') - '
@ 9,29 GET MSDESC
@ 11,5 SAY 'PROGRAMME DETAILS: ('+MPCODE+') - '
@ 11,34 GET MPNAME
@ 13,5 SAY 'PERIOD:' GET MPERIOD PICTURE '999'
@ 13,17 SAY 'WEEKS'
@ 13,27 SAY 'ALLOWANCE: #'
@ 13,39 GET MALLCE PICTURE '99,999.99'
@ 13,52 SAY 'NO OF STUDENTS:'
@ 15,10 SAY 'COMMENCEMENT DATE:'
@ 15,45 SAY 'TERMINAL DATE:'
@ 13,68 GET MSTDNO PICTURE '99,999'
@ 15,29 GET MCDATE
@ 15,60 GET MTDATE
CLEAR GETS
SELECT 2
DO WHILE .T.
  @ 9,22 GET MSCODE PICTURE '@!'
  READ
  GO TOP
  LOCATE FOR SCODE=MSCODE
  IF .NOT. FOUND()
    @ 19,19 SAY 'SCHOOL CODE DOES NOT EXIST - PRESS ANY KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    MSCODE=SPACE(3)
    LOOP
  ENDIF
  MSDESC=SDESC
  EXIT
```

```
ENDDO
@ 9,5 SAY 'SCHOOL DETAILS: ('+MSCODE+') - '
@ 9,29 GET MSDESC
CLEAR GETS
SELECT 3
DO WHILE .T.
 @ 11,25 GET MPCODE PICTURE '@!'
 READ
 GO TOP
 LOCATE FOR PCODE=MPCODE
 IF .NOT. FOUND()
  @ 19,17 SAY 'PROGRAMME CODE DOES NOT EXIST - PRESS ANY KEY'
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
  MPCODE=SPACE(5)
  LOOP
 ENDIF
 MPNAME=PNAME
 MPERIOD=PERIOD
 MALLCE=ALLCE
 EXIT
ENDDO
SELECT 1
MDAYS=7*MPERIOD
@ 11,5 SAY 'PROGRAMME DETAILS: ('+MPCODE+') - '
@ 11,34 GET MPNAME
CLEAR GETS
@ 13,5 SAY 'PERIOD:' GET MPERIOD PICTURE '999'
@ 13,17 SAY 'WEEKS'
@ 13,27 SAY 'ALLOWANCE: #'
@ 13,39 GET MALLCE PICTURE '99,999.99'
CLEAR GETS
@ 13,52 SAY 'NO OF STUDENTS:'
@ 15,10 SAY 'COMMENCEMENT DATE:'
@ 15,45 SAY 'TERMINAL DATE:'
@ 13,68 GET MSTDNO PICTURE '99,999'
@ 15,29 GET MCDATE
READ
MTDATE=MCDATE+MDAYS
@ 15,60 GET MTDATE
CLEAR GETS
@ 19,29 SAY 'SAVE CHANGES? (Y/N):'
DO WHILE .T.
 RESPONSE=' '
 @ 19,50 GET RESPONSE PICTURE '!'
 READ
```

```
    IF RESPONSE='Y' .OR. RESPONSE='N'
      EXIT
    ENDIF
  ENDDO
  IF RESPONSE='Y'
    REPLACE SCODE WITH MSCODE
    REPLACE SDESC WITH MSDESC
    REPLACE PCODE WITH MPCODE
    REPLACE PNAME WITH MPNAME
    REPLACE PERIOD WITH MPERIOD
    REPLACE ALLCE WITH MALLCE
    REPLACE STDNO WITH MSTDNO
    REPLACE CDATE WITH MCDATE
    REPLACE TDATE WITH MTDATE
  ENDIF
ENDDO
CLOSE ALL
CLEAR
RETURN
```

VIEW1.PRG

```
USE SIWES
DO WHILE .T.
  CLEAR
  @ 2,3 TO 21,76 DOUBLE
  @ 17,4 TO 17,75
  @ 4,22 SAY 'SIWES REGISTRATION - DISPLAY DETAIL'
  @ 5,22 TO 5,56 DOUBLE
  MSREGNO=SPACE(5)
  @ 7,5 SAY 'SIWES REGISTRATION NO (Press <ENTER> to Exit):' GET
MSREGNO PICTURE 'SR/99'
  READ
  IF MSREGNO=SPACE(5)
    EXIT
  ENDIF
  GO TOP
  LOCATE FOR SREGNO=MSREGNO
  IF .NOT. FOUND()
    @ 19,15 SAY 'REGISTRATION DETAIL DOES NOT EXIST - PRESS ANY KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
  MSCODE=SCODE
```

```
  MSDESC = SDESC
  MPCODE = PCODE
  MPNAME = PNAME
  MPERIOD = PERIOD
  MALLCE = ALLCE
  MSTDNO = STDNO
  MCDATE = CDATE
  MTDATE = TDATE
  @ 9,5 SAY 'SCHOOL DETAILS: (' + MSCODE + ') - '
  @ 9,29 GET MSDESC
  @ 11,5 SAY 'PROGRAMME DETAILS: (' + MPCODE + ') - '
  @ 11,34 GET MPNAME
  @ 13,5 SAY 'PERIOD:' GET MPERIOD PICTURE '999'
  @ 13,17 SAY 'WEEKS'
  @ 13,27 SAY 'ALLOWANCE: #'
  @ 13,39 GET MALLCE PICTURE '99,999.99'
  @ 13,52 SAY 'NO OF STUDENTS:'
  @ 15,10 SAY 'COMMENCEMENT DATE:'
  @ 15,45 SAY 'TERMINAL DATE:'
  @ 13,68 GET MSTDNO PICTURE '99,999'
  @ 15,29 GET MCDATE
  @ 15,60 GET MTDATE
  CLEAR GETS
  @ 19,27 SAY 'PRESS ANY KEY TO CONTINUE'
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
ENDDO
USE
CLEAR
RETURN
```

ERASE1.PRG

```
USE SIWES
DO WHILE .T.
  CLEAR
  @ 2,3 TO 21,76 DOUBLE
  @ 17,4 TO 17,75
  @ 4,23 SAY 'SIWES REGISTRATION - CANCEL DETAIL'
  @ 5,23 TO 5,56 DOUBLE
  MSREGNO = SPACE(5)
  @ 7,5 SAY 'SIWES REGISTRATION NO (Press <ENTER> to Exit):' GET
MSREGNO PICTURE 'SR/99'
  READ
  IF MSREGNO = SPACE(5)
```

```
  EXIT
ENDIF
GO TOP
LOCATE FOR SREGNO = MSREGNO
IF .NOT. FOUND()
  @ 19,15 SAY 'REGISTRATION DETAIL DOES NOT EXIST - PRESS ANY KEY'
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
  LOOP
ENDIF
MSCODE = SCODE
MSDESC = SDESC
MPCODE = PCODE
MPNAME = PNAME
MPERIOD = PERIOD
MALLCE = ALLCE
MSTDNO = STDNO
MCDATE = CDATE
MTDATE = TDATE
@ 9,5 SAY 'SCHOOL DETAILS: (' + MSCODE + ') - '
@ 9,29 GET MSDESC
@ 11,5 SAY 'PROGRAMME DETAILS: (' + MPCODE + ') - '
@ 11,34 GET MPNAME
@ 13,5 SAY 'PERIOD:' GET MPERIOD PICTURE '999'
@ 13,17 SAY 'WEEKS'
@ 13,27 SAY 'ALLOWANCE: #'
@ 13,39 GET MALLCE PICTURE '99,999.99'
@ 13,52 SAY 'NO OF STUDENTS:'
@ 15,10 SAY 'COMMENCEMENT DATE:'
@ 15,45 SAY 'TERMINAL DATE:'
@ 13,68 GET MSTDNO PICTURE '99,999'
@ 15,29 GET MCDATE
@ 15,60 GET MTDATE
CLEAR GETS
@ 19,29 SAY 'DELETE DATA? (Y/N):'
DO WHILE .T.
  RESPONSE = ' '
  @ 19,50 GET RESPONSE PICTURE '!'
  READ
  IF RESPONSE = 'Y' .OR. RESPONSE = 'N'
    EXIT
  ENDIF
ENDDO
IF RESPONSE = 'Y'
  DELETE
  PACK
```

```
  ENDIF
ENDDO
USE
CLEAR
RETURN
```

INS.PRG

```
DO WHIL .T.
CLEA
  @ 1,15 TO 24,64 DOUB
  @ 1,24 say "INDUSTRIAL TRAINING FUND - MINNA"
  @ 0,23 TO 2,56 DOUB
  @ 4,28 SAY 'SIWES MANAGEMENT SYSTEM'
  @ 5,28 TO 5,50 DOUB
  @ 7,28 SAY "INSTITUTION UPDATE MENU"
  @ 6,27 TO 8,51
  @ 20,16 TO 20,63
  @ 10,21 SAY "1 ..... NEW INSTITUTION DETAIL"
  @ 12,21 SAY "2 ..... CHANGE INSTITUTION DETAIL"
  @ 14,21 SAY "3 ..... DISPLAY INSTITUTION DETAIL"
  @ 16,21 SAY "4 ..... CANCEL INSTITUTION DETAIL"
  @ 18,21 SAY "5 ..... SUBMENU EXIT"
  DO WHIL .T.
    C = SPAC(1)
    @ 22,21 SAY "PICK YOUR CHOICE (1, 2, 3, 4, OR 5):" GET C PICT '9'
    READ
    IF C='1' .OR. C='2' .OR. C='3' .OR. C='4' .OR. C='5'
      EXIT
    ENDI
  ENDD
  DO CASE
    CASE C = '1'
      DO NEW2
    CASE C = '2'
      DO EDIT2
    CASE C = '3'
      DO VIEW2
    CASE C = '4'
      DO ERASE2
    CASE C = '5'
      EXIT
  ENDC
ENDD
CLEA
RETU
```

NEW2.PRG

```
USE INS
DO WHILE .T.
  CLEAR
  @ 5,11 TO 18,68 DOUBLE
  @ 14,12 TO 14,67
  @ 7,24 SAY 'SCHOOL REGISTRATION - NEW DETAIL'
  @ 8,24 TO 8,55 DOUBLE
  MSCODE=SPACE(3)
  @ 10,14 SAY 'SCHOOL CODE (Press <ENTER> to Exit):' GET MSCODE
PICTURE '@!'
  READ
  IF MSCODE=SPACE(3)
    EXIT
  ENDIF
  GO TOP
  LOCATE FOR SCODE=MSCODE
  IF FOUND()
    @ 16,18 SAY 'SCHOOL CODE ALREADY ENTERTED - PRESS ANY KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
  STORE SPACE(40) TO MSDESC
  @ 12,14 SAY 'DESCRIPTION:' GET MSDESC PICTURE '@!'
  READ
  @ 16,30 SAY 'SAVE DATA? (Y/N):'
  DO WHILE .T.
    RESPONSE=' '
    @ 16,49 GET RESPONSE PICTURE '!'
    READ
    IF RESPONSE='Y' .OR. RESPONSE='N'
      EXIT
    ENDIF
  ENDDO
  IF RESPONSE='Y'
    APPEND BLANK
    REPLACE SCODE WITH MSCODE
    REPLACE SDESC WITH MSDESC
  ENDIF
ENDDO
USE
CLEAR
RETURN
```

EDIT2.PRG

```
USE INS
DO WHILE .T.
  CLEAR
  @ 5,11 TO 18,68 DOUBLE
  @ 14,12 TO 14,67
  @ 7,22 SAY 'SCHOOL REGISTRATION - CHANGE DETAIL'
  @ 8,22 TO 8,56 DOUBLE
  MSCODE=SPACE(3)
  @ 10,14 SAY 'SCHOOL CODE (Press <ENTER> to Exit):' GET MSCODE
PICTURE '@!'
  READ
  IF MSCODE=SPACE(3)
    EXIT
  ENDIF
  GO TOP
  LOCATE FOR SCODE=MSCODE
  IF .NOT. FOUND()
    @ 16,19 SAY 'SCHOOL CODE DOES NOT EXIST - PRESS ANY KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
  MSDESC=SDESC
  @ 12,14 SAY 'DESCRIPTION' GET MSDESC PICTURE '@!'
  READ
  @ 16,28 SAY 'SAVE CHANGES? (Y/N):'
  DO WHILE .T.
    RESPONSE=' '
    @ 16,50 GET RESPONSE PICTURE '!'
    READ
    IF RESPONSE='Y' .OR. RESPONSE='N'
      EXIT
    ENDIF
  ENDDO
  IF RESPONSE='Y'
    REPLACE SDESC WITH MSDESC
  ENDIF
ENDDO
USE
CLEAR
RETURN
```

VIEW2.PRG

```
USE INS
DO WHILE .T.
  CLEAR
  @ 5,11 TO 18,68 DOUBLE
  @ 14,12 TO 14,67
  @ 7,22 SAY 'SCHOOL REGISTRATION - DISPLAY DETAIL'
  @ 8,22 TO 8,57 DOUBLE
  MSCODE=SPACE(3)
  @ 10,14 SAY 'SCHOOL CODE (Press <ENTER> to Exit):' GET MSCODE
PICTURE '@!'
  READ
  IF MSCODE=SPACE(3)
    EXIT
  ENDIF
  GO TOP
  LOCATE FOR SCODE=MSCODE
  IF .NOT. FOUND()
    @ 16,19 SAY 'SCHOOL CODE DOES NOT EXIST - PRESS ANY KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
  MSDESC=SDESC
  @ 12,14 SAY 'DESCRIPTION' GET MSDESC PICTURE '@!'
  CLEAR GETS
  @ 16,27 SAY 'PRESS ANY KEY TO CONTINUE'
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
ENDDO
USE
CLEAR
RETURN
```

ERASE2.PRG

```
USE INS
DO WHILE .T.
  CLEAR
  @ 5,11 TO 18,68 DOUBLE
  @ 14,12 TO 14,67
  @ 7,23 SAY 'SCHOOL REGISTRATION - CANCEL DETAIL'
  @ 8,23 TO 8,57 DOUBLE
```

```
 MSCODE=SPACE(3)
 @ 10,14 SAY 'SCHOOL CODE (Press <ENTER> to Exit):' GET MSCODE
PICTURE '@!'
 READ
 IF MSCODE=SPACE(3)
  EXIT
 ENDIF
 GO TOP
 LOCATE FOR SCODE=MSCODE
 IF .NOT. FOUND()
  @ 16,19 SAY 'SCHOOL CODE DOES NOT EXIST - PRESS ANY KEY'
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
  LOOP
 ENDIF
 MSDESC=SDESC
 @ 12,14 SAY 'DESCRIPTION' GET MSDESC PICTURE '@!'
 CLEAR GETS
 @ 16,29 SAY 'DELETE DATA? (Y/N):'
 DO WHILE .T.
  RESPONSE=' '
  @ 16,50 GET RESPONSE PICTURE '!'
  READ
  IF RESPONSE='Y' .OR. RESPONSE='N'
   EXIT
  ENDIF
 ENDDO
 IF RESPONSE='Y'
  DELETE
  PACK
 ENDIF
ENDDO
USE
CLEAR
RETURN
```

PRO.PRG

```
DO WHIL .T.
CLEA
 @ 1,15 TO 24,64 DOUB
 @ 1,24 say "INDUSTRIAL TRAINING FUND - MINNA"
 @ 0,23 TO 2,56 DOUB
 @ 4,28 SAY 'SIWES MANAGEMENT SYSTEM'
 @ 5,28 TO 5,50 DOUB
```

```
 @ 7,29 SAY "PROGRAMME UPDATE MENU"
 @ 6,28 TO 8,50
 @ 20,16 TO 20,63
 @ 10,21 SAY "1 ..... NEW PROGRAMME DETAIL"
 @ 12,21 SAY "2 ..... CHANGE PROGRAMME DETAIL"
 @ 14,21 SAY "3 ..... DISPLAY PROGRAMME DETAIL"
 @ 16,21 SAY "4 ..... CANCEL PROGRAMME DETAIL"
 @ 18,21 SAY "5 ..... SUBMENU EXIT"
 DO WHIL .T.
  C = SPAC(1)
  @ 22,21 SAY "PICK YOUR CHOICE (1, 2, 3, 4, OR 5):" GET C PICT '9'
  READ
  IF C='1' .OR. C='2' .OR. C='3' .OR. C='4' .OR. C='5'
   EXIT
  ENDI
 ENDD
 DO CASE
  CASE C = '1'
   DO NEW3
  CASE C = '2'
   DO EDIT3
  CASE C = '3'
   DO VIEW3
  CASE C = '4'
   DO ERASE3
  CASE C = '5'
   EXIT
 ENDC
ENDD
CLEA
RETU
```

NEW3.PRG

```
USE PROGRAM
DO WHILE .T.
 CLEAR
 @ 4,11 TO 19,69 DOUBLE
 @ 15,12 TO 15,68
 @ 6,25 SAY 'PROGRAMME UPDATE - NEW DETAIL'
 @ 7,25 TO 7,53 DOUBLE
 MPCODE=SPACE(5)
 @ 9,14 SAY 'PROGRAMME CODE (Press <ENTER> to Exit):' GET MPCODE
PICTURE '@!'
 READ
 IF MPCODE=SPACE(5)
```

```
   EXIT
  ENDIF
  GO TOP
  LOCATE FOR PCODE=MPCODE
  IF FOUND()
    @ 17,17 SAY 'PROGRAMME CODE ALREADY ENTERTED - PRESS ANY
KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
  STORE SPACE(40) TO MPNAME
  STORE 0 TO MPERIOD,MALLCE
  @ 11,14 SAY 'DESCRIPTION:' GET MPNAME PICTURE '@!'
  @ 13,14 SAY 'PERIOD (in Weeks):'
  @ 13,40 SAY 'ALLOWANCE (in #):'
  @ 13,33 GET MPERIOD PICTURE '999'
  @ 13,58 GET MALLCE PICTURE '99,999.99'
  READ
  @ 17,30 SAY 'SAVE DATA? (Y/N):'
  DO WHILE .T.
    RESPONSE=' '
    @ 17,49 GET RESPONSE PICTURE '!'
    READ
    IF RESPONSE='Y' .OR. RESPONSE='N'
      EXIT
    ENDIF
  ENDDO
  IF RESPONSE='Y'
    APPEND BLANK
    REPLACE PCODE WITH MPCODE
    REPLACE PNAME WITH MPNAME
    REPLACE PERIOD WITH MPERIOD
    REPLACE ALLCE WITH MALLCE
  ENDIF
ENDDO
USE
CLEAR
RETURN
```

EDIT3.PRG

```
USE PROGRAM
DO WHILE .T.
  CLEAR
```

```
 @ 4,11 TO 19,69 DOUBLE
 @ 15,12 TO 15,68
 @ 6,24 SAY 'PROGRAMME UPDATE - CHANGE DETAIL'
 @ 7,24 TO 7,55 DOUBLE
 MPCODE=SPACE(5)
 @ 9,14 SAY 'PROGRAMME CODE (Press <ENTER> to Exit):' GET MPCODE
PICTURE '@!'
 READ
 IF MPCODE=SPACE(5)
   EXIT
 ENDIF
 GO TOP
 LOCATE FOR PCODE=MPCODE
 IF .NOT. FOUND()
   @ 17,17 SAY 'PROGRAMME CODE DOES NOT EXIST - PRESS ANY KEY'
   SET CONSOLE OFF
   WAIT
   SET CONSOLE ON
   LOOP
 ENDIF
 MPNAME=PNAME
 MPERIOD=PERIOD
 MALLCE=ALLCE
 @ 11,14 SAY 'DESCRIPTION:' GET MPNAME PICTURE '@!'
 @ 13,14 SAY 'PERIOD (in Weeks):'
 @ 13,40 SAY 'ALLOWANCE (in #):'
 @ 13,33 GET MPERIOD PICTURE '999'
 @ 13,58 GET MALLCE PICTURE '99,999.99'
 READ
 @ 17,29 SAY 'SAVE CHANGES? (Y/N):'
 DO WHILE .T.
   RESPONSE=' '
   @ 17,50 GET RESPONSE PICTURE '!'
   READ
   IF RESPONSE='Y' .OR. RESPONSE='N'
     EXIT
   ENDIF
 ENDDO
 IF RESPONSE='Y'
   REPLACE PNAME WITH MPNAME
   REPLACE PERIOD WITH MPERIOD
   REPLACE ALLCE WITH MALLCE
 ENDIF
ENDDO
USE
CLEAR
RETURN
```

VIEW3.PRG

```
USE PROGRAM
DO WHILE .T.
  CLEAR
  @ 4,11 TO 19,69 DOUBLE
  @ 15,12 TO 15,68
  @ 6,23 SAY 'PROGRAMME UPDATE - DISPLAY DETAIL'
  @ 7,23 TO 7,55 DOUBLE
  MPCODE=SPACE(5)
  @ 9,14 SAY 'PROGRAMME CODE (Press <ENTER> to Exit):' GET MPCODE
PICTURE '@!'
  READ
  IF MPCODE=SPACE(5)
    EXIT
  ENDIF
  GO TOP
  LOCATE FOR PCODE=MPCODE
  IF .NOT. FOUND()
    @ 17,17 SAY 'PROGRAMME CODE DOES NOT EXIST - PRESS ANY KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
  MPNAME=PNAME
  MPERIOD=PERIOD
  MALLCE=ALLCE
  @ 11,14 SAY 'DESCRIPTION:' GET MPNAME PICTURE '@!'
  @ 13,14 SAY 'PERIOD (in Weeks):'
  @ 13,40 SAY 'ALLOWANCE (in #):'
  @ 13,33 GET MPERIOD PICTURE '999'
  @ 13,58 GET MALLCE PICTURE '99,999.99'
  CLEAR GETS
  @ 17,27 SAY 'PRESS ANY KEY TO CONTINUE'
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
ENDDO
USE
CLEAR
RETURN
```

ERASE3.PRG

```
USE PROGRAM
DO WHILE .T.
  CLEAR
  @ 4,11 TO 19,69 DOUBLE
  @ 15,12 TO 15,68
  @ 6,24 SAY 'PROGRAMME UPDATE - CANCEL DETAIL'
  @ 7,24 TO 7,55 DOUBLE
  MPCODE=SPACE(5)
  @ 9,14 SAY 'PROGRAMME CODE (Press <ENTER> to Exit):' GET MPCODE
PICTURE '@!'
  READ
  IF MPCODE=SPACE(5)
    EXIT
  ENDIF
  GO TOP
  LOCATE FOR PCODE=MPCODE
  IF .NOT. FOUND()
    @ 17,17 SAY 'PROGRAMME CODE DOES NOT EXIST - PRESS ANY KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
  MPNAME=PNAME
  MPERIOD=PERIOD
  MALLCE=ALLCE
  @ 11,14 SAY 'DESCRIPTION:' GET MPNAME PICTURE '@!'
  @ 13,14 SAY 'PERIOD (in Weeks):'
  @ 13,40 SAY 'ALLOWANCE (in #):'
  @ 13,33 GET MPERIOD PICTURE '999'
  @ 13,58 GET MALLCE PICTURE '99,999.99'
  CLEAR GETS
  @ 17,29 SAY 'DELETE DATA? (Y/N):'
  DO WHILE .T.
    RESPONSE=' '
    @ 17,50 GET RESPONSE PICTURE '!'
    READ
    IF RESPONSE='Y' .OR. RESPONSE='N'
      EXIT
    ENDIF
  ENDDO
  IF RESPONSE='Y'
    DELETE
    PACK
  ENDIF
```

```
ENDDO
USE
CLEAR
RETURN
```