

**COMPUTRIZATION OF STAFF RECORD  
SYSTEM  
(A CASE STUDY OF NIGER STATE UNIVERSAL BASIC  
EDUCATION BOARD MINNA)**

**BY  
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(PGD/MCS/2006/1198)**

**A PROJECT SUBMITTED TO THE DEPARTMENT  
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COMPUTER SCIENCE, SCHOOL OF SCIENCE  
AND SCIENCE EDUCATION, FEDERAL  
UNIVERSITY OF TECHNOLOGY MINNA,  
NIGERIA.**

**SEPTEMBER, 2008.**

pursuit/commitment and their encouragement contributed immensely to my success. This success belongs to all of us.

This column will not be complete without acknowledging the cooperation of my colleagues in the office. They are the chief accountant; mall. Hassan Umar, Yamman Sayuti, Isa Mokwa and Yakatu for their positive contribution. Also to my course mate such as Chukwu, Ayodele, Mohammed and the entire members of PGD/Computer science 2006/2007 academic year. Your team work and co-operation helped me in no small measure. People charged with the responsibility of typing cannot be left out hence, I acknowledge Mall. Yahaya and Abdullahi Ahmed. Worthy of mentions are my friends Bala Mohammed Abba and Ahmed T Mohammed. Thanks for your financial and moral support.

Finally, I wish to express my sincere gratitude to the management and staff of Niger state Universal Basic Education Board for their moral, financial and logistics support towards the success of this program. May God reward all of you for your various contributions (Amen).

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# DECLARATION

I ZAKARI ABUBAKAR declare that this research is to the best of my knowledge, and believe that is the original product of my research findings and have not been submitted to any institution for the award of any certificate before. All materials and ideas obtained from various sources have been duly acknowledged and I carry out the research.

# CERTIFICATION

This project title "COMPUTERIZATION OF STAFF RECORD SYSTEM",

A case study of Niger state universal basic education board by ZAKARI

ABUBAKAR has met the regulation and requirement governing the award

of a post graduate diploma in computer science, Federal University of

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HEAD OF DEPARTMENT

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EXTERNAL EXAMINER

## DEDICATION

This research is dedicated to my parents Mr and Mrs Abubakar Mahmud,  
My wife Mrs Khadijat Zakari and my children Rukayyat, Ummul-Kulthum  
and Aminat.

## ACKNOWLEDGEMENT

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My profound appreciation goes to my supervisor DR. U.Y. ABUBAKAR, who despite his numerous commitment, find time to patiently read this project, his constructive criticism and advise has help immensely towards making this project a success. May Allah rewards you abundantly, I wish also to use this medium to acknowledge the contribution of my course co-ordinator, he has been very kind and encouraging in hours of distress indeed thanks very much Mall. A. Ndanusa. I also wish to acknowledge the contribution of the Head of department (HOD) DR. N.I. AKINWANDE and the entire staff of the department of Maths/Computer science for providing us with conducive learning environment that facilitate the success of this program.

I wish to register my appreciation to my parents Mr and Mrs Abubakar Mahmud, my wife Mallama Khadijat Zakari and my children Rukayyat, Ummul-Kulthum and Aminat for their prayers patience and understanding. Many times they missed my companionship because of this academic

pursuit/commitment and their encouragement contributed immensely to my success. This success belongs to all of us.

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## **ABSTRACT**

This project shows the computerization of the staff record system of Niger state Universal Basic Education Board. Java programming language was used in the design of the program. The generated output reveals the various kinds of operation that can be carried out using the software. The study also reveals that the computerized method of record keeping is easier and faster than the previous manual method of keeping records.

# **CHAPTER ONE: GENERAL INTRODUCTION**

## **1.1 INTRODUCTION**

This chapter looks at the general introduction, objectives of the study and significant of the study. Other areas include statement of the problem, scope of the study as well as limitation of the study. This chapter discusses Niger state Universal Basic Education Board.

## **1.2 STATEMENT OF THE PROBLEM**

Over the years, Niger state Universal Basic Education Board has been keeping it record manually, this has lead to the board loosing vital information that ordinarily should not have been lost. Some of these problems include:

- i. Lack of accurate records.
- ii. Difficulty of retrieving old document
- iii. Outright loss of documents.
- iv. Difficulty in saving new records i.e merging it with its associates.

## **1.3 OBJECTIVE OF THE STUDY**

The research set for itself the following objectives which it aims to achieve:

- i. To provide alternative way of keeping record better than what is obtainable now.

- ii. To achieve accurate records of staff of NSUBEB it has never been before.
- iii. To establish a large data bank that can be use easily both for keeping records as well as the retrieving of the same records.
- iv. To inculcate the habit of using computer in the board.

#### **1.4 SIGNIFICANCE OF THE STUDY**

The significance of this research mainly aims at inculcating the computer culture in our society among others. Usually anxiety and fear or computer phobia are commonly associated with computerization organizations. The project also has as it focal point clearance of this fear.

Also this project has as it significance, a way forward for some other state owned establishments to computerize their staff records e.t.c. Similarly, this project will serve as a morale booster for the Niger state Universal basic education board to computerize it's payroll system as well as project execution, which the board carry out on a regular basis.

#### **1.5 SCOPE AND LIMITATION OF THE STUDY**

The areas of concern of this project include among others, the focal point being the Niger state universal basic education board records pertains to only staff of the board, it concerns only staffs who are directly employees of the board, who are t the headquarters of the board.

Limitations of the research however, include the followings; actually the research should have covered not only staff records but also the payroll system as well as record of projects carried out by the board. In addition, the project should have covered all offices and all employees of education authority up to the teacher in the classroom, but due to financial constraints as well as time, the project was restricted to the board's headquarters.

## **1.6 BRIEF HISTORY OF NIGER STATE UNIVERSAL BASIC EDUCATION BOARD**

Niger state universal basic education board started as Niger state primary education board in 1994 as an agency of the Niger state government through an act of the state house of assembly. With the introduction of universal basic education by the federal government, and the directives to the state government to follow suit. The Niger state house of assembly amended the earlier law establishing the former and a bill for a law to establish Niger state universal basic education.

Niger state universal basic education board is charged with the following functions:

- i. Management of early childhood care and education (ECCE); primary, nomadic and junior secondary schools, and agency for mass education.

- ii. Registration and supervision of traditional Arabic and Quranic School.
- iii. Certification of product of 9 year universal basic education.
- iv. Recruitment, appointment, promotion and discipline of teaching and non-teaching staff on salary grade level 07 and above.
- v. Disbursement of intervention funds provided to it from both federal and state sources to implementing agency.
- vi. Retirement and re-absorption of teaching and non-teaching staff.
- vii. Assessment and funding of salaries and allowances of teaching and non-teaching staff based on the scheme of service drawn up by the state.
- viii. Undertaking new capital projects, maintenance and rehabilitation of dilapidated class room/schools and other school infrastructures.
- ix. Management of funds meant for primary and junior secondary education from other agencies such as ETF, UNESCO, UNDP, UNICEF e.t.c.
- x. Purchase, distribution of instruction materials to pre-primary, primary, nomadic and junior secondary schools.

The Niger state universal basic education board as an executive chairman and four other full-time members appointed by the state

government to run and implement all the educational policies as regards primary and junior secondary education in the state.

The Niger state universal basic education board is comprised of the following departments, each headed by a director;

- a) Finance and supply
- b) Personnel management
- c) Planning, Research and statistic
- d) Social mobilization and special duties
- e) Audit.
- f) School services.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 INTRODUCTION**

This chapter review related literature on the computerization of personnel management records of some organizations. It begins with reviewing personnel management concept in which case we look at the definition and other factors to be considered in the personnel functions of an organization, other areas include recruitment and selection, manpower planning training and development, job evaluation e.t.c. It also look at the concept of record management, and the purpose of personnel record, computer application to personnel management records.

### **2.2 REVIEW OF PERSONNEL MANAGEMENT CONCEPT**

Emmanuel (1998) stated that management concept can be defined as the act of planning, organizing, directing and controlling of rare resources of people, information, money and technology to achieve some certain stated objective effectively and efficiently. All these require a very broad strategic plan on how the manage carries out his functions. The manager according to Emmanuel (1998), must be a person who can visualize and direct the organization in the direction, which he/she therefore needs to forecast the future. An effective manager who is result oriented must have knowledge as regards to information which he is expected to co-ordinate. It is when he

knows about every bit of information he is expected to manipulate that he can maximize all the benefit to be accrued from those information. This information is sourced from two – fold i.e from within and without the organization. Emmanuel (1998).

According to Akanya (1998), the information a manager needs to know within the organization include finance, capability, personnel competence information system obtain within the organization e.t.c whereas from the external sources, we expect the manager to know about government regulations and politics than can enhance or hinder his organizations success, action or behavior of competitors in the case of private or profit oriented organizations. Simply put therefore, the manager is expected to look at the strength and weaknesses from within the organization and his opportunities and threats from outside the organization.

Akanya (1998) stated that personnel management should aim at bringing together and develop into an effective organization, the men and women who make up an enterprises and having regards for the well being of the individual and working groups, to enable it succeed. Personnel management is also concerned with the human and social implication of change in internal organization and methods of working and of economic and social changes in the community.

The concept of personnel management according to Francis (1998) evolves from the narrow concern with the recruitment and welfare, to awareness on the part of the management, of the importance of the organization as a whole with the realization that every decision or act of management had a potential impact on employees since action of management affects the employees of an organization in some way, personnel management pervades all activities and whatever the formal arrangement of personnel activities may be all managers have a responsibility however small it may be for the success of the personnel function.

Francis (1998) further stated that the range of activities considered appropriate to the personnel function is wide. It activities regarded as coming within the sphere of personnel management include recruitment and selection, employees services (e.g welfare, safety, health, training and education, enumeration (e.g pay scales /ranges, job evaluation and grading merit awards, fringe benefit) organization of work ( e.g hours shift-working, holiday, industrial relations (e.g trade union relationship, negotiation, joint consultation, dispute and grievance procedures, redundancy procedures) manpower planning (e.g man power forecasting, labour turnover and absenteeism analysis.

Akanya (1998) stated that in recent years there has been an increasing awareness of the effect of organizational structure on efficiency and good relations within an organization. And the identification and resolution of problem which arise from inappropriate structures or form changes due to technological and administrative development are now seen as important functions of the personnel specialist. Senior or top level management development which involves the assessment of the organizations requirements in terms of management, man power, formulations and implementation of scheme to provide for adequate and suitable management succession, the preparation and development and training programmers for individual managers or officers and the formulation and implementation of performance review and appraisal schemes for managerial staffs.

Akanya (1998) further states that personnel practitioners need to acquire a range of specialist skills and knowledge in order to equip them to deal with the range of activities for which they are responsible. They have to be familiar with the detailed provision of the new consideration body of legislation affecting the people at their places of work to be able to offer advice on and assist in the formulation of appropriate personnel policies. They may have to become expert in complex management techniques such as manpower forecasting and budgeting and to keep abreast of development

in those areas. They may have to be knowledgeable about how to assess their respective merits to draw up training schemes for various categories of workers, to understand the better points of work-study technique.

In response to this need for personnel management and related techniques, training in personnel work has expanded considerable in recent years. This is evidenced by the number of courses offered by the Nigerian Institute of management, institute of personnel management of Nigeria, National institute of policy and strategic studies (NIPSS) Kuru and administrative staff college of Nigeria (ASCON) to train personnel practitioners.

### **2.3 FUNCTIONS OF PERSONNEL DEPARTMENT**

According to Emmanuel (1998), the function of personnel management department in organizations vary from one organization to another, however the following are common with most organizations.

- i. Recruitment and selection
- ii. Man power
- iii. Training and development
- iv. Staff appraisal
- v. Job evaluation
- vi. Salary, wages and conditions of service
- vii. Industrial relation

viii. Communication

ix. Personnel record management

### **2.3.1 RECRUITMENT AND SELECTION**

The personnel management as a system plays a key role in recruitment and selection of employees in to organization. The personnel department is at advantage because it knows the work force needs of the organization and it is the duty to provide these required work force needs. To be able to do this, the personnel department use to prepare a concise job description and specification and stating clearly the title of job and the responsibility required. The physical condition required for the job and other information such as the qualifications required, experience, salary and condition of service would be provided. Base on this , the personnel department looks for suitable people who will meet the success of any organization is so much dependent on the resources available to it, the staff of the personnel department must therefore take great care in selecting the right person, Emmanuel (1998).

### **2.3.2 MANPOWER PLANING**

Personnel management as a system performs the vital role which cuts across other department in an organization. Man power planning is a specialist function which should be left in hands of those who can perform the

function adequately in an organization. In performing this role, personnel department adopts a system where by it evaluates the existing manpower resources of the organization and then forecast the labour requirement of the organization.

### **2.3.3 TRAINING AND DEVELOPMENT**

After establishing a manpower plan for the organization and having also attended to the recruitment and selection. Procedures, personnel department now focuses it attention on training and development of the employees.

Training is a short-term process of learning specific skill by both junior and intermediate staffs. Development on the other hand, is a long-term learning process designed to develop senior officers in order to acquire them with changes in technology and management methods. Personnel management department collects information in area of training through discussions with other heads of department and through other document in the organization, Emmanuel (1998).

### **2.3.4 STAFF APPRAISAL**

Staff appraisal is a process of determining the success, failure and effectiveness of all functionaries in an organization toward the set objectives. It is therefore the duty of the personnel people to devise a system, whereby all functionaries within an organization could be appraised to find

out. If they are performing the task allocated to them satisfactorily. Staff appraisal, when properly carried out, has advantages both to the organization and the employees Emmanuel (1998)

### **2.3.5 JOB EVALUATION**

Job evaluation is a process of analyzing and assessing relative worth of jobs in an organization in order to place them in an acceptable rank order which can be used as basis for pay structure. It is a design that helps to determine the correct salary to be paid to every job to ensure fair play and justice to all and sundry. The personnel department is directly involve in this process and should ensure that the method used should be acceptable to all concerned. Emmanuel (1998).

### **2.3.6 SALARY, WAGES AND CONDITION OF SERVICE**

Salary, wages and condition of service go along way in motivating workers in an organization. To do this effectively staffs of personnel department must take into consideration all necessary factors required for attaining an acceptable salary and wages for employees.

### **2.3.7 INDUSTRIAL RELATIONS**

Peace and harmony are quite essential within an organization personnel department must be able to cope with problems of industrial relations right from the grass root levels. To be able to do this, the staff of personnel

department must possess an up to date knowledge of history of the union they have deal with. They must be familiar with the current legislation on industrial matters and ensure compliance. They must always be familiar with the organization's procedure on matters related to union and above all possess negotiation in order to safeguard the interest of the organization at all times. Emmanuel (1998).

### **2.3.8 COMMUNICATION**

This is the most difficult function for the personnel specialists. It is the first skill the staff of personnel department should posses. They must be able to communicate effectively. It is by effective communication that conflicts in organization can be reduced to a tolerable level.

### **2.3.9 PERSONNEL RECORD MANAGEMENT**

Major function of the personnel department is the storage of data and information about the employees in an organization. This involves keeping of personnel record: for effective management and prompt retrieval. It is the duty of the personnel department to denote accurate, comprehensive and relevant to the need of the organization. The personnel records should be duplicate and should be maintained and updated from time to time.

## 2.4 CONCEPT OF RECORD MANAGEMENT

Records management can be defined as the art of preserving essential records accurately in an organization and subsequent speedy retrieval of information for decision making. It is also a close study of modern management techniques on filing and retrieval system, provision of modern office equipment and machinery accommodation and facilities as well as organization and management of registries Francis(1998).

It is quit obvious that records are as important as manpower, finance and material resources. Information, in other words is the product of processed data or records. The commonest system in any organizations of maintaining, storage and retrieval of personnel records and information is the use of files in the corresponding registries as stated by Francis(1998) further more, he stated that most registries are dingy places, ill equipped, poorly staffed and ventilated. In addition, some officers take no regards for record and they are not aware of the importance of registries as the nerve center and livewire of the organization. Francis (1998).

Although, the principles and concepts of personnel records management are universal each organization or office has its specific features and problems which need to be identified before a suitable solution can be found as observed. Antiquated method need to e modernize. The problem of record

management is becoming more acute on daily basis because of the accelerated accumulation of papers, including personnel papers which make their control ever more difficult. This can however be solved or simplified by the application of modern management techniques including provision of appropriate filing equipment, adequate accommodation, staff development and training, motivation proper classification, indexing, filing and numbering of files.

## **2.5 PURPOSE OF PERSONNEL RECORDS**

According to Akanya (1998) personnel records are kept for a variety of reason (which he itemized below) depending on the objectives, function and the environment of the organization.

- I. To furnish the much needed information on the organization workforce, which is useful for both internal and external management of the organization.
- II. To provide accurate information on manpower planning in terms of educational qualifications, cognate experience, knowledge and skills of employees, their potentials and placement opportunities.
- III. To generate information on human resources research. That is necessary information is supplied to validate hiring selection, placement and promotion criteria.

- IV. To furnish information on employee's strength and weakness so that appropriate training and development scheme can be designed and implemented in systematic fashion.
- V. To provide information on how best to conduct industrial employee relations.
- VI. To generate information on the capability and productive profiles of each employee; That is man power recognition which will assist in determining bonus payment, advancement or promotion, demotion, transfers etc. ,
- VII. Provide factual data as a base for decision making in every area of personnel work e.g manpower forecasting and planning, recruitment and selection, training and development and health and safety.

Akanya (1998).

## **2.6 COMPUTER APPLICATION TO PERSONNEL MANAGEMENT**

According to Francis (1998) computer has a very wide application. The fact is computer can be programmed to perform a variety of task that involved little or no mathematics. The computer system can provide information to management for decision making for the staff of personnel department, it provides information required for

- I. Planning for human resources needs of an organization.
- II. Finding and hiring employees
- III. Training and compensating staff
- IV. Retirement of staff

In addition, the personnel department can use computer to store the employee's records for proper and easy retrieval of information. The ability of the computer to perform these various functions is due to the availability of application packages.

An application package is a programs designed to perform a specific task, such as pay rolls, sales ledger, personnel records e.t.c these package include d-base, word processing, spread sheets packages etc all these have direct impact on personnel management, Francis(1998).

When applied to personnel management, a good d-base management system can process personnel information in a variety of ways. For instance, it could display the information on the screen or by printing a report.

Additionally, the record of all employees can be stored and retrieved as required. Its ability to sort and search data allows information to be retrieved in an orderly manner Francis (1998).

Other areas of applications of computer to personnel management has to do with communication/terminal emulator packages which allow the

management to talk to other people through the computer. This is good device for collecting data on applicants, cross checking with referees and sending information to short listed candidates or those offered places.

Data on employees in various branches can also be transferred easily and promptly for use. As stated earlier, therefore, the aim of personnel records is to a large extent, determined by the aim of the organization in general and the aims of the personnel department in particular. This is because the personnel records should be seen as a subset of the personnel information system.

## **CHAPTER THREE: SYSTEM ANALYSIS AND DESIGN**

### **3.1 INTRODUCTION**

The system analysis and design involves assessing and analyzing the existing system in order to help in designing the proposed system.

In view of this, this chapter begins with the description of the existing methods with its associated problems, so that the new proposed system can be design to solve the problems as well as ease record keeping and retrieval system. It will also consider the input design of the new system, files to be created and the expected output.

Other areas of interest in this chapter include the choice of programming language to be used, the cost and benefit analysis of the system used to accomplish the computerization of staff record system of Niger state universal basic education board.

### **3.2 REVIEW OF THE EXISTING SYSTEM**

The existing system forms the basis for the development of a new system.

Basically, the present method of record keeping in Niger state universal basic education board is characterized by paper work and file handling.

The department of personnel management of the board is charged with the responsibility of keeping staff records. Should there arise any need for the retrieval of any particular staff records such request will be sent to the

personnel management department, which in turn search for the records and forwards it to those requesting for it (response).

This method is characterized by so much delay (time wasting) and there is high tendency that accurate and complete records may not be obtained afterwards.

### **3.3 PROBLEMS OF THE EXISTING SYSTEM**

The present method of record keeping at the Niger state universal basic education board is associated with many problems, these arises as a result expansion in manpower, regular and irregular movement of staffs within and outside the board. The manual method of keeping records cannot cope with the above irregular activities. Hence the problems associated with such system include:

- I. Incorrect, incomplete and in accurate documentation.
- II. Increase search time which is a manifestation of poor retention and retrieval procedures.
- III. Poor storage facilities as manifest of decayed infrastructures.
- IV. Uncountable access, misplacement and loss of vital documents.
- V. Increase retention of useless and date records, which is indicative of absence of regular record census.

- VI. Lack of safe guards on the confidentiality accuracy and relevance personnel information.
- VII. Explosive volumes of records which is tantamount to over creation or over generation of date and attendant duplication,

### **3.4 SYSTEM DESIGN**

The new system being proposed does not differ by broad merging from the current system as regards mode of operation. It is however, computerized to display higher level of efficiency and redundancy to bearable minimum.

The proposed system has greater capability than the existing system in various ways some of which are;

- i. Large storage capacity: Greater amount of data could be stored in the computer memory and besides the new software is meant to work with My structured query language (MYSQL) database which can store millions of records and if properly back-up, the case of lost of data will not exist.
- ii. Efficiency: The new system is designed to have higher level of accuracy due to the ability of the computer's central processing unit (CPU).
- iii. Ease work: Records are written to the database one after the other, no information will be mixed up.

- iv. Speed: The processing time is faster because the computer process data at a very high speed to get relevant information at the shortest possible time.
- v. Technological advancement; moving from manual mode of operation to a computerized system brings advancement in technology therefore making the education line more prominent.

### **3.4.1 Input design**

The system designed to accept input through the key board into various files for processing.

This aspect of the system design is very important because it describes in proper order a computer acceptable format of the required input data. The input required by this program includes:

1. Employee Identity number (ID)
2. Surname
3. First name
4. Other names
5. Sex
6. Phone number
7. Passport photograph
8. Department

9. Present qualification
10. Rank
11. Age
12. Date of appointment
13. Level
14. Date of birth
15. Local government area (LGA)
16. State of origin
17. Town
18. Nationality
19. Home address
20. Postal address
21. Next of kin

#### **3.4.2 FILE PROCESS**

All files created in this project design must be compiled as java types before execution takes place. So many files were linked together to achieve the desired goal of developing this software to meet up the need for development.

Seventeen files were created in this project design, they include:

- i. Staff.java: This sets all staff attribute as a single object.

- ii. Passport.java: This processes passport files.
- iii. Dates.java: This sets all date fields as an object.
- iv. Years.java: This sets all year entry as a single object.
- v. EmployeeDb.java: Is a file that access the database for writing and retrieving data from the database is linked to all input and output files.
- vi. InputFrame.java: Provides an interface for accepting input data.
- vii. EditFrame.java; Provides an interface for editing record.
- viii. EmployeeMenu.java: Is the base frame which has the menus of the entire operations involved.
- ix. SingleView.java: Provides an interface for displaying employee's record one at a time.
- x. InputAction.java: Triggers action for displaying the input frame.
- xi. EditAction.java: Triggers action for displaying the input frame.
- xii. ViewAction.java: Triggers action for displaying the frame that enables single record view.
- xiii. MaleOutpuAction: Triggers action for displaying the frame that enables single view of employee's record.
- xiv. ColumnData.java: It specifies the size of table column.
- xv. EmployeeTableData.java: Represents the table model on which the data is displayed.

- xvi. MaleOutputTable.java: Provides a frame and a table containing all output information.

### **3.4.3 OUTPUT DESIGN**

This is the processed data specified from the input design. This data when keyed into the computer must be processed and after being processed must be sent to the database and a query must produce a result. The result of the query on the input data is called output.

The output design of this project is outlined as follows:

22. Employee Identity number (ID)

23. Surname

24. First name

25. Other names

26. Sex

27. Phone number

28. Passport photograph

29. Department

30. Present qualification

31. Rank

32. Age

33. Date of appointment

- 34.Level
- 35.Date of birth
- 36.Local government area (LGA)
- 37.State of origin
- 38.Town
- 39.Nationality
- 40.Home address
- 41.Postal address
- 42.Next of kin

In addition, the result generated could be produced as follows:

- i. Print out of individual record.
- ii. Print out of the entire record of all employees of the board.

### **3.5 PROGRAMMING LANGUAGE**

Java is the programming language used for the design of this software. The latest java development kit 1.6 (JDK 1.6) with net beans integrated development environment (IDE) version 5.5 which provides a graphical user interface(GUI) for java programmers was used.

Java language is chosen because of its following features and capabilities:

- 1. Java is platform dependent: This allows you to create modular programs and reusable code.

2. Java is platform independent: Java program has the ability to run on different systems.
3. Java is secure: It consider security as part of its design, the java language compiler, interpreter, and runtime environment were each developed with security in mind.
4. Java is robust: That is reliability, it puts a lot of emphasis on early checking for possible errors, as java compilers are able to detect many problem that would first show up during execution time in other languages.
5. Java is object oriented: It considers detailed information as an object which eases data manipulation.

### **3.6 COST AND BENEFIT ANALYSIS**

This subchapter deals with cost associated as well as benefits to be derived from the computerization of staff records of the Niger state universal basic education board.

#### **3.6.1 COST ANALYSIS**

In order to determine the cost of operating the proposed system, it is necessary to recognize the various ways in which cost may be incurred.

Cost incurred, are usually in the following categories

A Development costs:

I computer hardware

Computers systems with the following configuration

Pentium 4, 6MHZ processor.

256MB of RAM

40GB of hard disk

15 inches monitor at ₦80,000×3 each = ₦ 270,000

3 UPS (600 volts) ₦ 20,000 each =~~₦~~ 60,000

1 Laser jet printer (40,000) =~~₦~~ 40,000

Personnel training

2 operators at ₦ 10,000 (2 Months)=~~₦~~ 20,000

**Total development cost** = ~~₦~~ 420,000

B System Operation cost

i. Program maintenance : one (1) programmer at ₦ 12,000 (annually)=

₦ 144,000

ii. Supplies of computer papers and other consumables = ₦ 20,000.00

iii. Miscellaneous expenses = ₦ 20,000.00

**Total system operation cost** =~~₦~~ 166,000.00

**Overall Total Cost** =~~₦~~ 586,000.00

### **3.6.2 BENEFIT ANALYSIS OF THE PROPOSED SYSTEM**

It is expected that a lot of benefit will be derived from the proposed computerization of Niger state universal basic education board Records.

Notable among them includes the followings.

1. Enhance the efficient operation of the board in terms of staff control and discipline.
2. Create speedy ways of responding to enquiry in other to provide a reliable way of formulating policy.
3. Creation of speedy ways of generating reports from the system.
4. Maintenance of data security.
5. Allow for carrying out major changes in the design of the system, since the new system is fully documented.

## **CHAPTER FOUR: SYSTEM IMPLEMENTATION**

### **4.1 INTRODUCTION**

System implementation is the process of making the new system fully operational. All data must be created and stored in the form required by the new system, hence, all records in the files must be transferred to the storage medium of the new system. The system conversion which is actually transition from old to new system shall be done gradually. Hence, this chapter discusses among others, the algorithm, and the coding of the program, the documentation, that is how to access the program and use it. Others include comment, analysis or discussion of the output of the program as the case may be. the last item dealt with has to do with the change over procedure and then the summary of the chapter.

### **4.2 PROGRAM ALGORITHM**

An algorithm is a step by step finite set of instruction written in order to solve a particular problem. Algorithm exists in different forms, either as flowchart, or pseudo code, decision-tree e.t.c.

### **4.3 FLOWCHART**

A flowchart is a graphical representation of algorithm, using symbols and arrows indicating the flow of instructions. Such symbols include: start

symbol, input symbol, process symbol, decision symbol connector symbol

e.t.c.

The flow chart of this program is shown in figure 1.

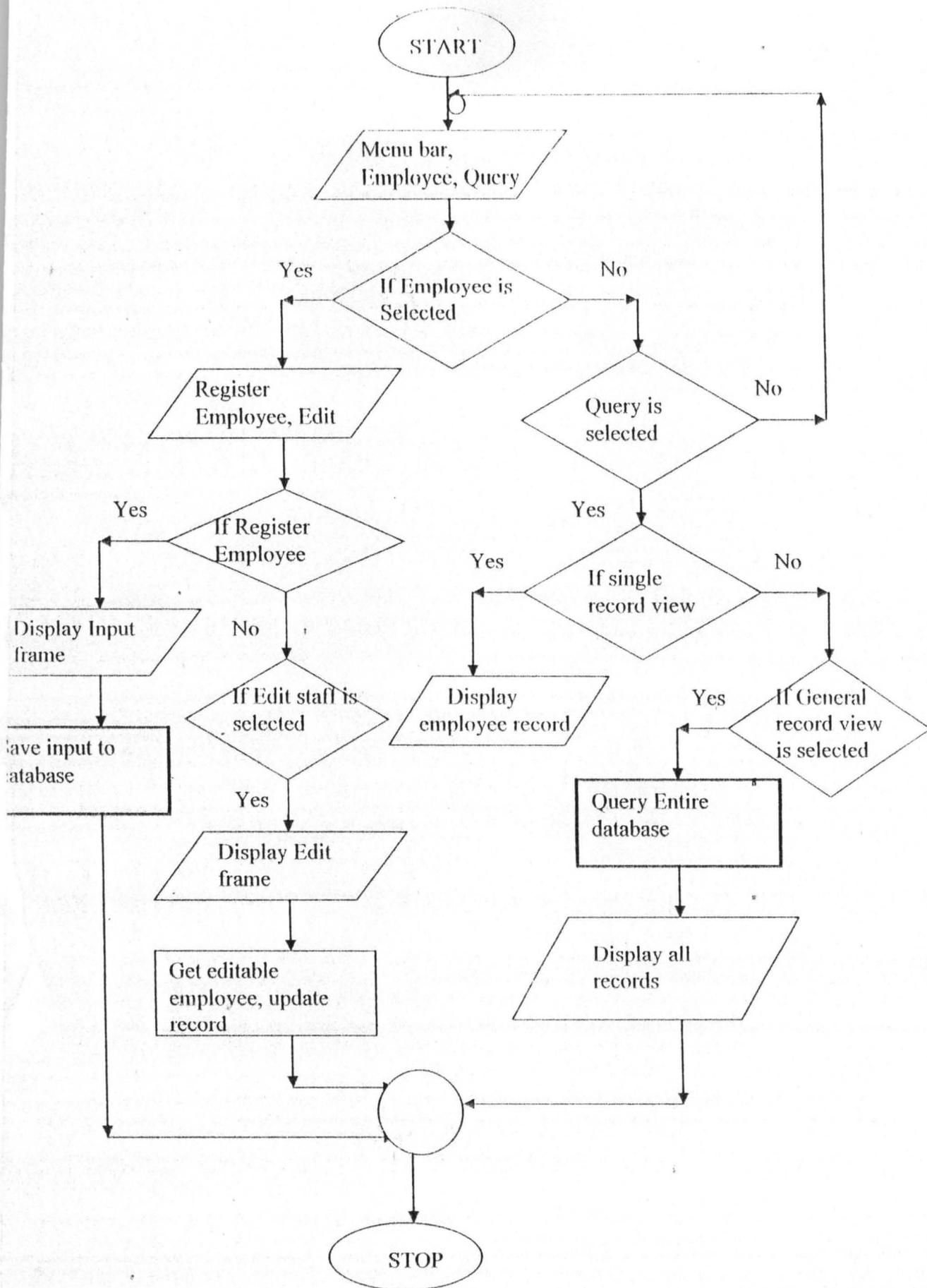


Figure 1; Flowchart of the program

#### **4.4 PROGRAM CODE**

Program code is a step by step instruction written in a specific high level language (HLL) e.g Java, Visual basic, C++ e.t.c to solve a problem and is usually executable by a computer. It involves expressing the algorithm in a language understandable by computer. The program code for this project design is printed and shown in appendix A.

#### **4.5 PROGRAM INTERFACE/DOCUMENTATION**

A background frame is displayed on the screen as the program begins execution. The frame has a menu bar which contains two menus namely:

- i. Employees
- ii. Query

Each of these menus contained sub menus;

Employees sub menus include:

- (i) Register employee: For saving records of new employee by clicking the save button.
- (ii) Edit staff: To edit the record of an existing employee by clicking the edit button and after editing, the update button is clicked to update the database. While Query sub menu include:

- (i) Single record view: to view an employee's information by clicking the view button and using the next and previous button to navigate through personnel record.
- (ii) General record view: for viewing the entire records of organization's staff, the print button is used to print a copy of the query result.

Each of the sub menus discussed above displays a frame with input components like text fields, labels, e.t.c including buttons that triggers action.

#### **4.6 RESULT/DISCUSSION**

The result generated by this program depends completely on the input data and are always displayed on text fields of a frame or a table.

The output of this program is presented and discussed in pages 36 to 40 in a well structured interface.



As the program first executes the above menu frame is displayed. As seen this frame contains two menus namely: (i) Employees and (ii) Query.

- (i) Employees: this has two sub menus namely: (a) Register employee and (b) Edit staff.
- (ii) Query: this also has two sub menus namely: (a) Single record view and (b) General record view.

**REGISTER NEW EMPLOYEE RECORD**

Employee ID:    

Surname:  First name:  Other names:

Sex:  Phone number:  Department:

Present qualification:  Rank:  Age:

**PRESENT APPOINTMENT DATE/LEVEL**

Date: Day  Month  Year  Level

**DATE OF BIRTH**

Day  Month  Year

Place of birth:  State of origin:  L.G.A:

Town:  Nationality:

Home address:

Postal address:

**FIRST APPOINTMENT DATE/LEVEL**

Day  Month  Year  Level

Previous experience:

Next of kin:



On selection of the register employee sub menu, the above frame is displayed and users are expected to enter a new staff record on the text fields provided by the interface appropriately. The **save** button is clicked to write the entered information to the database. Clicking the **cancel** button disposes the frame.

EDIT EMPLOYEE RECORD						
EDIT STAFF REFERRED BY ENTERING STATE ID						
BROWSE		Staff ID	1			
Surname	Johnson	First name	Berish			
Other names	Kays	Phone	00077434512			
Department	General	Rank	Secretary	Qualification	FIRST DEGREE	
PRESENT APPOINTMENT DATE / LEVEL						
Day	2	Month	12	Year	2000	
				Level	8	
DATE OF BIRTH						
Day	1	Month	2	Year	2000	
Place of birth	Minna	State of origin	Niger	Age	23	
Sex	FEMALE	LGA	Shiroro	Town	Kuta	
Home Address	No 4, Bossa Estate Minna					
Postal Address	P O Box 3321					
FIRST APPOINTMENT DATE / LEVEL						
Day	8	Month	2	Year	SELF...	
				Level	8	
Previous experience					Nationality	Nigeria
Next of kin	Dr Ahmed					
<input type="button" value="EDIT"/> <input type="button" value="UPDATE"/> <input type="button" value="CANCEL"/>						

On selection of the edit staff sub menu of the employees menu, the above frame is displayed with various components such as labels, text fields' e.t.c. A user is expected to first enter the identification number (ID) of the staff record to be edited and then click on the **edit** button to retrieve all information against the input (ID) for editing. After editing, the user clicks on the **update** button to save update to the database. The **cancel** button disposes this frame.

**SINGLE RECORD VIEW**

INDIVIDUAL OUTPUT (VIEW)

Employee ID 1

Surname Johnson First name Sarah 

Other names Kays Phone 00077434512

Qualification FIRST DEGREE Rank Secretary

Department General

PRESENT DATE/LEVEL (PROGRESS)

Day 2 Month 12 Year 2000 Level 8

DATE OF BIRTH

Day 1 Month 2 Year 2000 Age 23

SEX

Female

Place of birth Minna State of origin Ngor U.A. Shoro

Town Kuta Nationality Nigeria

FIRST APPOINTMENT DATE/LEVEL

Day 8 Month 2 Year 2007 Level 8

Previous experience

Home address No. 4, Dossa Estate Minna

Postal address P.O.Box 3321 Next of kin Dr Ahmed

<<Previous || Next>>

From the query menu, selecting the single record view sub menu pops up the frame shown above. The **view** button is clicked to retrieve all records and display only one (first stored record) at a time, the **previous** and **next** button are used to navigate through the record set as the name implies; previous displays the previous record while next displays the next record. The **find** button is used to find and display a particular record by entering the record identification number (ID) from an input dialog that pops up immediately after the click of the button.

GENERAL QUERY

search

Search By

ID	SURNAME	FIRST NAME	OTHER NAMES	SEX	PHONE	RANK	DEPARTMENT	LEVEL	AGE	STATE	APPOINTMEN	DATE PROMO	HOME ADDR
1	Johnson	Berah	Kays	FEMALE	00077434612	Secretary	General	8	23	Niger	2/12/2000	9/2/2007	No 4, Dossa
2	Yuseuf	Isah	Bulalman	MALE	00077429373	Adviser	General	9	20	Niger	2/12/2006	4/1/2007	No 4, Ypakur
3	Jonah	Francis		FEMALE	00054578323	Personnel off.	Planning	6	25	Niger	5/6/2003	5/1/2007	NO 12, Dossa

Print

Start | EMPLOYEE MENU FF | GENERAL QUERY | Document1 - Microsoft... | 1:28 PM

On selecting the general record view, the above menu pops up to the screen with all employees' record displayed in a table. The combo box at the top left is a criterion that enables users to view record by sex: male or female (filter), and also retrieve record by departments. The **print** button is used to print a hard copy of the output on paper.

#### 4.7 CHANGE OVER PROCEDURE

This involves file conversion and file set up. File conversion requires changing the old (existing) system files to the format and content required by the new system. File set up is the process of setting up the converted files on the computer.

Change over is the full replacement of all the old procedures by the new ones. The change over could be in any of the following three forms:

- (i) Parallel changeover
  - (ii) Direct changeover
  - (iii) Pilot changeover
- (i) Parallel changeover: This requires both old and new system to run concurrently for some time using the same inputs. The output of the two systems is compared. This will continue until the new system is confirmed to be working satisfactorily.
- (ii) In the case of direct changeover, the new system becomes operational immediately.
- (iii) The pilot changeover requires changing to the new system on piecemeal.

All the above highlighted procedures of a system conversion are required for the new system. It should be noted that a computer operator under a close supervision could perform the file conversion and file set up.

However, it is recommended that a parallel changeover method for the conversion of the system should be adopted; this is to ensure that within the period of changeover, the store activities in terms of storage and information retrieval are not in any way affected.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND**

### **RECOMMENDATIONS**

#### **5.1 INTRODUCTION**

This chapter summarizes the research work carried out on the project, the conclusion arrived at and the recommendations proffered to enhance the computerization of staff record system of the Niger state universal basic education board, Minna.

#### **5.2 SUMMARY**

Chapter one introduces the entire project and look at issues like the objectives of the study, statement of the problem, scope and limitations of the study as well as the significance of the study. It briefly tells about the Niger state Universal Basic Education Board.

Chapter two reviews related literatures, it deals with issues such as concept of personnel management, functions of the personnel management department in organizations and purpose of personnel management. It ended with computer application to personnel management.

Chapter three talk about the design and analysis of the new system. It does that by reviewing the existing system, then it analysis problems encountered with this method and why it become obvious for the board to

computerize it staff records. It went ahead to analyze the input and output design of the need system as well as the file process. The Java programming language is used in writing the program. It ended with cost and benefit analysis associated with the new system.

Chapter four analyses how the new system is to be implemented. It looked at the algorithm method used in the research, code used in developing the software and the program interface documentation. In addition, it discusses the change over procedure available to the implementation of the new system.

### **5.3 CONCLUSION**

The global phenomenon of continuous substitution of manual procedure of record keeping with computer has become a most for organization that want to succeed. This is due to its relevance in virtually all aspects of human endeavor. This is intensified by the capability of computers to perform task with the least probability of error and by implication greater chance of accuracy. It is not subjected to error and its ability to accomplish task with the higher speed than human being or manually.

### **5.4 RECOMMENDATION**

Having ascertained the feasibility of computerized models for the processing of staff records, We here by recommend for the adoption and

full implementation so as to match the benefit with the efforts put up to develop the package. However, for the board to attain maximum benefit of computerization, the following recommendation needs to be strictly observed.

1. Training requirements: Existing staff of the board needs to undergo training on how to use the new system for efficiency and maximum result.
2. Enlightening of existing staff about the proposed computerization: A kind of seminar needs to be organized to keep the entire workforce of the board abreast of the need for the computerization of so as to clear away fear that the propose system might fail.
3. Create undue anxiety of staff (say with bad records): conducive environment for computer operation: the computer room should be fully air – conditioned so as to ensure durability of the system.
4. Security: In any computer based records keeping system, there is the need to safeguard the secrecy of records kept. In view of this, board staff as well as outsiders who are not staff of the department should not be given unrestricted access to the computer room. In addition, even each employee/staff of the computer room should

have his or her password which they must enter to access the system.

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```
*
* InputFrame.java
*
* Created on December 2, 2007, 3:56 PM
*/
import com.yah.util.Passport;
import com.yah.util.Staff;
import com.yah.util.Years;
import java.awt.Component;
import java.awt.Image;
import java.io.BufferedInputStream;
import java.io.File;
import java.io.FileInputStream;
import java.io.IOException;
import java.util.List;
import javax.imageio.ImageIO;
import javax.swing.ImageIcon;
import javax.swing.JFileChooser;
import javax.swing.JOptionPane;

/**
 *
 * @author Yaya
 */
public class InputFrame extends javax.swing.JFrame {

    /** Creates new form InputFrame */
    EmployeeDb db = new EmployeeDb();
    public InputFrame() {
        initComponents();
        setYearBoxes(db.getYears());
    }
}
```

```

}
private void setYearBoxes(List<Years> myListArray){
    for(Years ye:myListArray){
        JComboBox4.addItem((Object)ye.getValue());
        JComboBox7.addItem((Object)ye.getValue());
        JComboBox10.addItem((Object)ye.getValue());
    }
    //Returns Image file in byte format.
private void setImage(){
    File f=new File(jTextField17.getText());
    try {
        Image image=ImageIO.read(f);
        JLabel28.setIcon(new
    } catch (IOException ex) {
        ex.printStackTrace();
    }
}
private Component verify(){
    Component inputFields = null;
    if(jTextField19.getText().equals(null) || jTextField19.getText().equalsIgnoreCase("")){
        inputFields=jTextField19;
        JOptionPane.showMessageDialog(this,"Please type in staff ID number");
    }
    else if(jTextField1.getText().equals(null) || jTextField1.getText().equalsIgnoreCase("")){
        inputFields=jTextField1;
        JOptionPane.showMessageDialog(this,"Please type in surname");
    }
    else if(jTextField2.getText().equals(null) || jTextField2.getText().equalsIgnoreCase("")){
        inputFields=jTextField2;
        JOptionPane.showMessageDialog(this,"Please type in first name");
    }
    else if(jTextField7.getText().equals(null) || jTextField7.getText().equalsIgnoreCase("")){

```

```

inputFields=jTextField7;
JOptionPane.showMessageDialog(this,"Please type in phone number");
}
else if(jTextField18.getText().equals(null) || jTextField18.getText().equalsIgnoreCase("")){
    inputFields=jTextField18;
    JOptionPane.showMessageDialog(this,"Please type in department posted to.");
}
else if(jTextField6.getText().equals(null) || jTextField6.getText().equalsIgnoreCase("")){
    inputFields=jTextField6;
    JOptionPane.showMessageDialog(this,"Please type staff rank");
}
else if(jTextField10.getText().equals(null) || jTextField10.getText().equalsIgnoreCase("")){
    inputFields=jTextField10;
    JOptionPane.showMessageDialog(this,"Please type staff local government area");
}
else if(jTextField11.getText().equals(null) || jTextField11.getText().equalsIgnoreCase("")){
    inputFields=jTextField11;
    JOptionPane.showMessageDialog(this,"Please type staff town");
}
else if(jTextField12.getText().equals(null) || jTextField12.getText().equalsIgnoreCase("")){
    inputFields=jTextField12;
    JOptionPane.showMessageDialog(this,"Please type staff nation name");
}
else if(jTextField13.getText().equals(null) || jTextField13.getText().equalsIgnoreCase("")){
    inputFields=jTextField13;
    JOptionPane.showMessageDialog(this,"Please type staff home address");
}
else if(jTextField14.getText().equals(null) || jTextField14.getText().equalsIgnoreCase("")){
    inputFields=jTextField14;
    JOptionPane.showMessageDialog(this,"Please type staff postal address");
}
}

```

```
else if((jTextField16.getText().equals(null) | jTextField16.getText().equalsIgnoreCase(""))){
    inputFields=jTextField16;
    JOptionPane.showMessageDialog(this,"Please type in next of kin");
}
else if(jComboBox1.getSelectedItem().equals("SELECT")){
    inputFields=jComboBox1;
    JOptionPane.showMessageDialog(this,"Please select sex");
}
else if(jComboBox11.getSelectedItem().equals("SELECT")){
    inputFields=jComboBox11;
    JOptionPane.showMessageDialog(this,"Please select highest qualification obtained");
}
else if(jComboBox2.getSelectedItem().equals("SELECT")){
    inputFields=jComboBox2;
    JOptionPane.showMessageDialog(this,"Please select present day");
}
else if(jComboBox3.getSelectedItem().equals("SELECT")){
    inputFields=jComboBox3;
    JOptionPane.showMessageDialog(this,"Please select present month");
}
else if(jComboBox4.getSelectedItem().equals("SELECT")){
    inputFields=jComboBox4;
    JOptionPane.showMessageDialog(this,"Please select present year");
}
else if(jComboBox12.getSelectedItem().equals("SELECT")){
    inputFields=jComboBox12;
    JOptionPane.showMessageDialog(this,"Please select employee level");
}
else if(jComboBox5.getSelectedItem().equals("SELECT")){
    inputFields=jComboBox5;
    JOptionPane.showMessageDialog(this,"Please select day of birth");
```

```

}
else if(jComboBox6.getSelectedItemId().equals("SELECT")){
    inputFields=jComboBox6;
    JOptionPane.showMessageDialog(this,"Please select month of birth");
}
else if(jComboBox1.getSelectedItemId().equals("SELECT")){
    inputFields=jComboBox1;
    JOptionPane.showMessageDialog(this,"Please select year of birth");
}
else if(jComboBox13.getSelectedItemId().equals("SELECT")){
    inputFields=jComboBox13;
    JOptionPane.showMessageDialog(this,"Please select level at initial time of employment");
}
else if(!isFile()){
    inputFields=jTextField17;
    JOptionPane.showMessageDialog(this,"Invalid passport file");
}
return inputFields;
}

private void registerStaff(){
    Staff s = new Staff();
    s.setStaffId(jTextField19.getText().trim());
    s.setSurname(jTextField1.getText().trim());
    s.setFirstName(jTextField2.getText().trim());
    if(!jTextField3.getText().equals(null) || !jTextField3.getText().equals(""))
        * WARNING: Do NOT modify this code. The content of this method is
        * always regenerated by the Form Editor.
    */
    // <editor-fold defaultstate="collapsed" desc="Generated Code ">//GEN-BEGIN: initComponents
    private void initComponents() {
        jSeparator1 = new javax.swing.JSeparator();

```

```
jLabel1 = new javax.swing.JLabel();
jTextField1 = new javax.swing.JTextField();
jLabel2 = new javax.swing.JLabel();
jLabel3 = new javax.swing.JLabel();
jLabel4 = new javax.swing.JLabel();
jTextField2 = new javax.swing.JTextField();
jTextField3 = new javax.swing.JTextField();
jSeparator2 = new javax.swing.JSeparator();
jTextField4 = new javax.swing.JTextField();
jLabel5 = new javax.swing.JLabel();
jLabel6 = new javax.swing.JLabel();
jTextField6 = new javax.swing.JTextField();
jComboBox1 = new javax.swing.JComboBox();
jLabel7 = new javax.swing.JLabel();
jSeparator3 = new javax.swing.JSeparator();
jLabel8 = new javax.swing.JLabel();
jLabel9 = new javax.swing.JLabel();
jComboBox2 = new javax.swing.JComboBox();
jLabel10 = new javax.swing.JLabel();
jComboBox3 = new javax.swing.JComboBox();
jLabel11 = new javax.swing.JLabel();
jComboBox4 = new javax.swing.JComboBox();
jLabel12 = new javax.swing.JLabel();

    .addComponent(jTextField8, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

    .addComponent(jLabel17)

    .addComponent(jTextField9, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

    .addComponent(jLabel18)

    .addComponent(jTextField10, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
```

```

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jTextField12, javax.swing.GroupLayout.PREFERRED_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jLabel20)
            .addComponent(jTextField11, javax.swing.GroupLayout.PREFERRED_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jButton3))
        .addContainerGap());
};
pack();
// </editor-fold>//GEN-END:initComponents

```

```

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_jButton2ActionPerformed
// TODO add your handling code here:
    Component c=verify();
    if(c!=null)
        c.requestFocusInWindow();
    else
        registerStaff();
} //GEN-LAST:event_jButton2ActionPerformed

```

```

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_jButton3ActionPerformed
// TODO add your handling code here:
    this.dispose();
} //GEN-LAST:event_jButton3ActionPerformed

```

```

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_jButton1ActionPerformed
// TODO add your handling code here:
    JFileChooser fileChooser=new JFileChooser();
    fileChooser.setFileSelectionMode(JFileChooser.FILES_ONLY);
} //GEN-LAST:event_jButton1ActionPerformed

```

```

if(fileChooser.showDialog(this,"Upload")==JFileChooser.APPROVE_OPTION){
    File f=fileChooser.getSelectedFile();
    jTextField17.setText(f.getAbsolutePath());
    setImage();
}
}

//GEN-LAST:event_jButton1ActionPerformed

/**
 * @param args the command line arguments
 */
public static void main(String args[]) {
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new InputFrame().setVisible(true);
        }
    });
}

public class EmployeeMenu extends javax.swing.JFrame {

    /** Creates new form EmployeeMenu */
    public EmployeeMenu() {
        initComponents();
        this.createEmployee(jMenuBar1);
        this.createQueryMenu(jMenuBar1);
        ImageIcon image = new ImageIcon("C:/Documents and Settings/Yaya/My
Documents/image/backlogo.gif");
        Image im=image.getImage();
        jLabel1.setIcon(new ImageIcon(im.getScaledInstance(jLabel1.getWidth(),jLabel1.getHeight(),5)));
    }

    private void createEmployee(JMenuBar mb){

```

```

JMenu menu = new JMenu("Employees");
menu.add(new InputAction());
menu.add(new EditAction());
mb.add(menu);
}

private void createQueryMenu(JMenuBar mb){
    JMenu menu = new JMenu("Query");
    menu.add(new ViewAction());
    menu.add(new MaleOutputAction());
    //JMenuItem item = new JMenuItem(new MaleOutputAction());
    //item.add(new MaleOutputAction());
    //menu.add(item);
    mb.add(menu);
}

public class EditFrame extends javax.swing.JFrame {

    /** Creates new form EditFrame */
    private String qualif;
    private String sex;
    private int presDay;
    private int presMonth;
    private int presYear;
    private int bDay;
    private int bMonth;
    private int bYear;
    private int prevDay;
    private int prevMonth;
    private int prevYear;
    EmployeeDb db = new EmployeeDb();
    private String editPicture="";
    public EditFrame() {

```

```
InitComponents();
setYearBoxes(db.getYears());
jTextField2.setEditable(false);
buttonGroup1.add(jRadioButton1);
buttonGroup1.add(jRadioButton2);
jRadioButton2.setSelected(true);
```

```
}
```

```
private void setYearBoxes(List<Years> myListArray){
    for(Years ye:myListArray){
        jComboBox4.addItem((Object)ye.getValue());
        jComboBox7.addItem((Object)ye.getValue());
        jComboBox10.addItem((Object)ye.getValue());
```

```
}
```

```
s.setDate(datt);

s.setLevel(Integer.parseInt(jComboBox12.getSelectedItem().toString()));
s.setBirthPlace(jTextField9.getText());
s.setStateOfOrigin(jTextField10.getText());
s.setInitialLevel(Integer.parseInt(jComboBox13.getSelectedItem().toString()));
s.setAge(Integer.parseInt(jTextField11.getText().trim()));
s.setLga(jTextField13.getText());
s.setTown(jTextField14.getText());
s.setNationality(jTextField12.getText());
s.setHomeAddress(jTextField15.getText());
s.setPostalAddress(jTextField16.getText());
if(!jTextField17.getText().equals(""))
    s.setPrevExperience(jTextField17.getText());
s.setNextOfKin(jTextField18.getText());

Passport p=new Passport();

if(editPicture.equals("Yes")){
```

```
p.setSelectedImage(getImageInBytes(jTextField2.getText()));  
s.setSelectedImage(p);
```

```
}
```

```
public class SingleView extends javax.swing.JFrame {
```

```
/** Creates new form SingleView */
```

```
private int count=0;
```

```
List<Staff> myArray=new ArrayList<Staff>();
```

```
EmployeeDb db = new EmployeeDb();
```

```
public SingleView() {
```

```
    initComponents();
```

```
    myArray=db.getEmployees();
```

```
    jButton2.setEnabled(false);
```

```
    jButton3.setEnabled(false);
```

```
    if(myArray.size()==0){
```

```
        jButton3.setEnabled(false);
```

```
        jButton2.setEnabled(false);
```

```
    }
```

```
    else if(myArray.size()==1){
```

```
        jButton3.setEnabled(false);
```

```
        jButton2.setEnabled(false);
```

```
    }
```

```
    buttonGroup1.add(jRadioButton1);
```

```
    buttonGroup1.add(jRadioButton2);
```

```
}
```

```
private void setSelectedImage(List<Staff> staffArray,int count){
```

```
    this.count=count;
```

```
    Staff s=null;
```

```
try{
    s = staffArray.get(lthis.count);
}
catch(IndexOutOfBoundsException ex){
    JOptionPane.showMessageDialog(lthis,"Wrong input, value out of range");
}
if(s==null){
    //JOptionPane.showMessageDialog(lthis,"Database is empty");
}
else{
    jTextField1.setText(s.getStaffId());
    jTextField2.setText(s.getSurname());
    jTextField3.setText(s.getFirstName());
    jTextField4.setText(s.getOtherNames());
    jTextField5.setText(s.getPhone());
    jTextField15.setText(s.getDepartment());
    jTextField6.setText(s.getRank());
    jTextField21.setText(s.getPresentQualfication());
    jTextField17.setText(String.valueOf(s.getDate().getPresentDay()));
    jTextField18.setText(String.valueOf(s.getDate().getPresentMonth()));
    jTextField19.setText(String.valueOf(s.getDate().getPresentYear()));
    jTextField20.setText(String.valueOf(s.getLevel()));
    jTextField22.setText(String.valueOf(s.getDate().getBirthDay()));
    jTextField23.setText(String.valueOf(s.getDate().getBirthMonth()));
    jTextField24.setText(String.valueOf(s.getDate().getBirthYear()));
    jTextField25.setText(String.valueOf(s.getAge()));
    jTextField7.setText(s.getBirthPlace());
    if(s.getSex().equals("MALE")){
        jButton1.setSelected(true);
        jButton2.setSelected(false);
    }
}
```

```

else if(s.getSex().equals("FEMALE")){
    jRadioButton1.setSelected(false);
    jRadioButton2.setSelected(true);
}
jTextField9.setText(s.getStateOfOrigin());
jTextField8.setText(s.getLga());
jTextField10.setText(s.getTown());
jTextField11.setText(s.getNationality());
jTextField26.setText(String.valueOf(s.getDate().getPrevDay()));
jTextField27.setText(String.valueOf(s.getDate().getPrevMonth()));
jTextField28.setText(String.valueOf(s.getDate().getPrevYear()));
jTextField29.setText(String.valueOf(s.getInitialLevel()));
jTextField13.setText(s.getHomeAddress());
jTextField14.setText(s.getPostalAddress());
jTextField12.setText(s.getPrevExperience());
jTextField16.setText(s.getNextOfKin());
ImageIcon im=new ImageIcon(s.getPassport().getPassport());
Image image=im.getImage();
jLabel21.setIcon(new
ImageIcon(image.getScaledInstance(jLabel21.getWidth(),jLabel21.getHeight(),5)));
}

```

```

public class MaleTableOutput extends javax.swing.JFrame {

```

```

/** Creates new form MaleTableOutput */

```

```

private EmployeeTableData m_data= null;

```

```

private JLabel m_title;

```

```

private String searchValue="All";

```

```

public MaleTableOutput() {

```

```

    initComponents();

```

```

m_data=new EmployeeTableData(searchValue);
dataTable.setModel(m_data);

this.setSize(1500,900);

        dataTable.setAutoCreateColumnsFromModel(false);
        JTableHeader header = dataTable.getTableHeader();
        header.setUpdateTableInRealTime(false);

    }

    public String getSearchValue(){
        return searchValue;
    }

    /** This method is called from within the constructor to
    * initialize the form.
    * WARNING: Do NOT modify this code. The content of this method is
    * always regenerated by the Form Editor.
    */
    // <editor-fold defaultstate="collapsed" desc="Generated Code ">///GEN-BEGIN: initComponents
    private void initComponents() {
        sp = new javax.swing.JScrollPane();
        dataTable = new javax.swing.JTable();
        jPanel2 = new javax.swing.JPanel();
        jComboBox1 = new javax.swing.JComboBox();
        jLabel1 = new javax.swing.JLabel();
        jButton2 = new javax.swing.JButton();
    }

    public class EmployeeTableData extends AbstractTableModel{

        /** Creates a new instance of EmployeeTableData */
        public static final ColumnData my_columns[] = {

```

```
new ColumnData("ID", 50),
new ColumnData("SURNAME", 70),
new ColumnData("FIRST NAME", 70),
new ColumnData("OTHER NAMES", 70),
new ColumnData("SEX", 40),
new ColumnData("PHONE", 70),
//new ColumnData("PO.BOX", 70),
new ColumnData("RANK", 70),
new ColumnData("DEPARTMENT", 50),
//new ColumnData("INITIAL LEVEL", 40),
new ColumnData("LEVEL", 40),
//new ColumnData("DATE OF BIRTH", 50),
//new ColumnData("PLACE OF BIRTH", 60),
new ColumnData("AGE", 40),
new ColumnData("STATE", 60),
//new ColumnData("L.G.A", 70),
//new ColumnData("TOWN", 70),
//new ColumnData("NATIONALITY", 70),
new ColumnData("APPOINTMENT DATE", 50),
new ColumnData("DATE PROMOTED", 40),
//new ColumnData("PAST EXPERIENCED", 70),
//new ColumnData("NEXT OF KIN", 70),
//new ColumnData("POSTAL ADDRESS", 90),
new ColumnData("HOME ADDRESS", 90)
};
```