

COMPUTERISATION OF THE PAYROLL SYSTEM
A CASE STUDY OF CENTRAL BANK OF
NIGERIA, MINNA

BY

MAQUAL FELIX GEORGE

PGD/MCS/105/95/96

DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE,
FEDERAL UNIVERSITY OF TECHNOLOGY

DECEMBER, 1999

COMPUTERISATION OF THE PAYROLL SYSTEM:
A CASE STUDY OF CENTRAL BANK OF NIGERIA,
MINNA

BY

MAQUAL FELIX GEORGE

PGD/MCS/105/95/96

A PROJECT SUBMITTED TO THE DEPARTMENT OF
MATHEMATICS/COMPUTER SCIENCE, FEDERAL
UNIVERSITY OF TECHNOLOGY, MINNA IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE
AWARD OF THE POST GRADUATE DIPLOMA IN
COMPUTER SCIENCE.

DECEMBER, 1999

APPROVAL PAGE

This project has been approved by the undersigned, as meeting the requirements of the Department of Mathematics/Computer Science, Federal University of Technology

PRINCE R. BADMUS
PROJECT SUPERVISOR

DATE

DR. S. A. REJU
HEAD OF DEPARTMENT

DATE

EXTERNAL EXAMINER

DATE

ABSTRACT

The project focuses more at using the relational database approach in designing an effective computerized payroll system for the organisation,

The organisation has been facing a lot of difficulties with the present (Manual) system of paying staff salaries and other allowances.

It is envisaged that full automation of the bank's payroll system will remove all delays. Lapses and problems that are being encountered in the manual system. This effort will be achieved using Dbase programming Language.

DEDICATION

THIS PROJECT IS DEDICATED TO MY IMMEDIATE FAMILY
FOR THEIR LOVE AND CONCERN.

ACKNOWLEDGEMENT

To God, all glory is due. Your support over me has been tremendous. I am highly indebted to my project Supervisor, Prince R.O. Badamosi, a man of high intellect. Your concern for the entire students in the program is commendable. Despite your academic work load of imparting knowledge to other, you still found sufficient time to correct, offer suggestions and make the outcome of this work come out well. To our prince, salute your courage and tireless efforts to the huge success of the PGD programme.

I am profoundly grateful to Prof .K. R. Adeboye for his fatherly role to see to the huge success of this program. To the Lecturers who taught me, I salute your efforts and very highly honoured. Thanks for been there for us.

To my classmates, I say bravo. We all started well and ended well. To others too numerous to mention here, I say thanks to everyone.

TABLE OF CONTENT

DEDICATION -----	i
APPROVAL PAGE -----	ii
ACKNOWLEDGEMENT -----	iii
ABSTRACT -----	iv
TABLE OF CONTENT -----	v
CHAPTER ONE	
1.0 INTRODUCTION -----	1
1.1 PROBLEM DEFINITIONS -----	2
1.2 OBJECTIVE OF THE STUDY -----	2
1.3 METHODOLOGY -----	3
1.4 SCOPE AND LIMITATION -----	3
CHAPTER TWO	
2.0 LITERATURE REVIEW -----	4
2.1 ORGANISATION STRUCTURE OF THE BANK -----	4
2.2 MANUAL PREPARATION OF PAYROLL -----	7
2.3 EMPLOYMENT EARNINGS RECORD -----	7
2.4 PAYMENT MODE -----	8
2.5 PAYROLL DEDUCTIONS -----	8
CHAPTER THREE	
3.0 SYSTEM ANALYSIS AND DESIGN -----	9
3.1 FEASIBILITY STUDY -----	9
3.2 TESTING OF PROJECT FEASIBILITY -----	9
3.3 SYSTEM DESIGN -----	10

3.4 COST BENEFITS ANALYSIS OF THE NEW SYSTEM -----	11
3.5 BENEFIT OF THE PROPOSED SYSTEM -----	11
CHAPTER FOUR	
4.0 INTRODUCTION -----	13
4.1 CHOICE OF LANGUAGE -----	13
4.2 FEATURE OF LANGUAGE CHOSEN -----	13
4.3 HARDWARE REQUIREMENT -----	14
4.4 SOFTWARE REQUIREMENT -----	14
4.5 STAFF TRAINING -----	14
4.6 CHANGE OVER PROCEDURE/SYSTEM CONVERSION -----	14
4.7 DATABASE STRUCTURE -----	15
4.8 SYSTEM DOCUMENTATION -----	18
4.8.1 STARTING THE SYSTEM -----	18
4.8.2 DESCRIPTION OF THE SYSTEM MENU -----	19
CHAPTER FIVE	
5.0 SUMMARY -----	21
5.1 CONCLUSION -----	21
5.2 RECOMMENDATIONS -----	21
REFERENCE -----	23
APPENDIX I – PROGRAM OUTPUT -----	24
APPENDIX II – PROGRAM LISTING -----	34

CHAPTER ONE

1.0 INTRODUCTION:

The main focus of this work is to introduce computers in the processing of the payroll system in the organization. The reason being that a computerized system is cost-effective and provides better information in terms of importance and speed wherever required.

Computers are able to assist management to project and analyse the effects of various alternative methods of processing information. Office automation systems are computer-based to enhance the effectiveness and productivity of people who work in offices. They need to learn new office skills and different ways of using new equipment's and procedures. Some of the skills they need to lean include; the preparation of the monthly salaries of workers in all the departments of the organization and keeping efficient records of the movement of cash and other valuables.

In all establishments, payment of workers salaries is done through the payroll system. The procedures of processing salaries of workers differs from our establishment to the other, however the process is basically the same.

In the processing of staff salaries, large amounts of data are being handled and from time to time, new records are added, some deleted while others are completely updated.

Besides, the personnel emolument cards and other payroll records are subjected to dust, wear and tear when office assistants are conveying them from accounts department to audit department for cross-checking. Also there is the problem of security for the data in the bin cards which contain details of salaries of various

workers as this can be easily exposed. All these reasons necessitated the urgency of computerising the payroll system of the Central Bank of Nigeria.

1.1 PROBLEM DEFINITIONS

The payroll system of the Central Bank of Nigeria, Minna Branch, is at present being processed manually. It involves writing out the salary details of each and every staff and working out the various calculations involved manually.

This is rather very cumbersome way of processing staff salaries at this modern technological age.

The main thrust of this work is to devise a method of handling this important activity through the aid of modern computer, so that all the delays, omissions and over/short payments will be eliminated.

1.2 OBJECTIVES OF THE STUDY

Indeed, the main aims and objectives of the proposed payroll system for this large establishment include: -

- (a) To design a fully computerised payroll system for the bank so that the problems associated with the manual system can be solved.
- (b) To devise a system with universal application if certain minimal alternatives are effected.
- (c) To reduce in its entirety all forms of malpractice and fraudulent manipulations that leads to inflated wage bill in the usual manual system.
- (d) Relieve the staff of doing routine and monotonous work.
- (e) Provision of efficient and effective payment procedures to the entire staff of the establishment.
- (f) To eliminate totally the loss of records usually associated with handling of

staff salary cards every month.

1.3 METHODOLOGY

The project focuses more on the following procedures:-

- (a) Examining the current system of payroll pattern in the Central Bank of Nigeria.
- (b) Determining what is wrong with this system and comparing alternative methods of achieving the same results at a faster rate.

1.4 SCOPE AND LIMITATIONS

This project mainly examined and analysed the urgent need for a computerised payroll system that will replace the existing manual operation.

However, this project will be limited by certain factors such as: - Finance, which will be much required to meet up with the requirements of this important part of the programs. Also, there is the problem of insufficient time to carry out effective work. There is also the problem of management full cooperation to give/allow sufficient staff to seriously start work on the computerization process of the payroll section for the establishment.

CHAPTER TWO

2.0 LITERATURE REVIEW

Introduction

Every organization regardless of its size and purpose is concerned with processing facts or data about its operations in order to provide current and accurate information to the management.

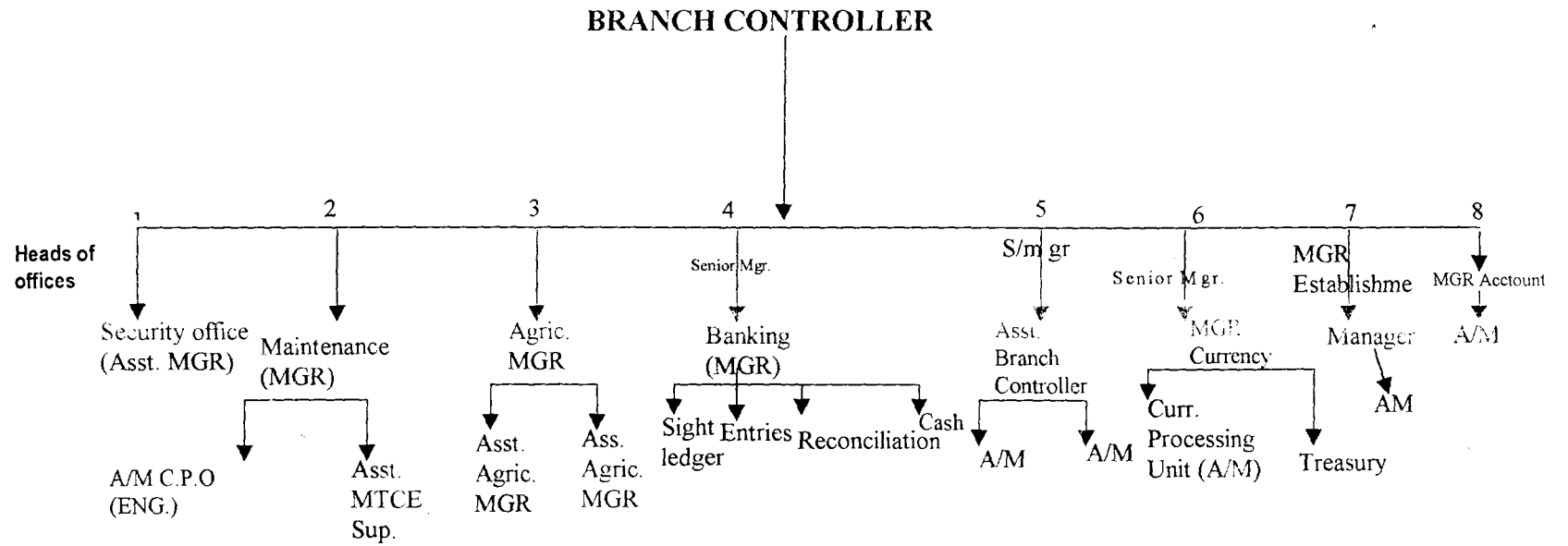
To meet this need on the business scene, most recently and foremost among them, is the introduction of computer, which is the fastest and most sophisticated business tool. Due to its advantages, computers are now used to control the financial and management activities of business which the payroll is an indispensable part. A lot of authors like Hanson and Dittrich (1988) Dupree and Marder (1984) have all written extensively about payroll. How the earnings, deduction, Net Pay and the total amount payable for an employee is calculated and approached is basically the same. Other authors believed that records and procedures depend to a great extent on the size of the work force and the degree to which the record keeping is automated. William M. Fuvri (1977) hold the same view and tends to concentrate on how computer can assist them in the computation of the payroll.

2.1 ORGANIZATIONAL STRUCTURE OF THE COMPANY

Most organisations can be looked upon as having three layers of management. At the top layer is the Board of Directors. They are responsible for the long range planning activities of the organisation and will set the overall goals of the company.

While the middle management that typically consists of Heads of Departments ensure that policies of the organisation are carried out and in most cases will act upon minor cases within their limited powers. The operation level will be responsible for the day to day operation of the organisation.

ORGANISATIONAL CHART OF CENTRAL BANK OF NIGERIA MINNA BRANCH



THE ROLES OF THESE OFFICERS

1. **SECURITY**: Safeguards the properties of the bank with the assistance of the mobile Police team.
2. **MAINTENANCE**: Ensures regular function of fittings and fixtures e.g electrification and electronic appliances, sewage and water supply.
3. **AGRICULTURAL OFFICE**: Monitors the disbursement of guarantee loan scheme and the recovery.
- 4 **BANKING**: Operates retail banking to Government ministries and parastatals.
5. **BRANCH CONTROLLERS REPRESENTATIVE**: Plays the role of receiving deposit into treasury in conjunction with Currency office for purpose of dual control.
6. **CURRENCY**: Acts as the custodian of the currency by issuing and receipt of deposit. They operate a dual control with Branch Controllers representative.
7. **ESTABLISHMENT**: Is in charge of personnel and material.
8. **ACCOUNTS**: Keeps tracks of fund disbursement and accounting records, personal and contract cheques are raise by this office including salaries of personnel.

2.2 MANUAL PREPARATION OF PAYROLL

The requirements for the preparation of payroll manually for an organization include - Staff strength, Payroll form, and Personal emolument form. The staff strength is the total listing of employees whose names are to be included in the payroll of the company.

The staff are listed according to their departments. The staff strength is updated every month to reflect the current staff that should be included on the payroll. The entries are classified into four groups namely: -

- (a) Earnings - This includes Basic Salaries, Acting Allowances, Over Time, Salary and other arrears.
- (b) Taxation - This involves the working of total tax due.
- (a) Deductions: - This includes all loans and advances. Such includes Vehicle loan, Salary advance, Housing Loan, Furniture Loan, refurbishing loan etc.
- (b) Non-Taxable Payments - The non-taxable payments include all allowances or payments accrued to the employee such as Leave grants, Housing allowance, Transport allowance, Salary advance, Night allowances, Meal subsidy and other allowances.

2.3 EMPLOYEE EARNINGS RECORD

Employers maintain an individual earnings record for each employee. This record contains much of the information needed for the various taxation and reporting requirements established by law. The individual earnings record contains the details on earnings and deductions as contain in the payroll register.

2.4 PAYMENT MODE

An employer can pay an employee either by cash payment or through the bank. This however will depend on the size of the organization. For a small organization, it is easier through cash payment but for a bigger organization it is much easier through the bank.

2.5 PAYROLL DEDUCT

A variety of deductions are often taken from employee earnings. Apart from the monthly tax, other items may be deducted from an employee's gross earning in arriving at the Net Take-home Pay for the period. Other deductions include Union dues, Advances from employer, Contribution to charitable organization, retirement plan etc.

CHAPTER THREE

3.0 SYSTEMS ANALYSIS AND DESIGN

Introduction

System analysis and design is a process similar to problem solving. The process of system analysis involves a number of steps that can be applied to any study.

Before any case for change in an organizational set-up is given for consideration, the idea for the changes must first be identified and fully examined critically to justify the need for change.

3.1 FEASIBILITY STUDY

The main concept of feasibility study was carried out on the existing system and a thorough assessment of all possible alternative solutions were done. In preparing the payroll of the bank manually, the following problems were envisaged: -

- (i) Repetitive task of book - keeping.
- (ii) Computations of balance anytime salaries and other payments are made.
- (iii) Delay in generating of reports when required.
- (iv) Frequent mistakes made while preparing the payroll.
- (v) Once payroll is prepared manually, it becomes very difficult to insert or delete any information, as alteration could render it useless.

3.2 TESTING THE PROJECT FEASIBILITY

For project feasibility, the following have to be undertaken: -

3.3 OPERATIONAL FEASIBILITY: This relates or is concerned with the workability of the proposed information system when developed and installed.

3.4 TECHNICAL FEASIBILITY: This aspect tries to clearly if the proposed project can be done with current equipment, existing software and available

personnel.

3.5 **ECONOMICAL FEASIBILITY:** This concerns the financial feasibility. This has to be undertaken to assess cost of implementing the proposed project.

All in all, the proposed system can be carried out based on the main testing of project feasibility.

3.6 **SYSTEM DESIGN**

Design is the process whereby the system analyst applies his skill and knowledge to interpret the requirement specification that provides detailed documentation of the new system. For effective design to be fully achieved certain basic factors must be considered:-

- (a) Production of desired information at the right time and with an acceptable level of accuracy.
- (b) The need to minimize cost and time spent on data preparation.
- (c) Effective safeguards for prevention of frauds.
- (d) Effective security measures to avoid loss of data stored in files.
- (e) Effective design of documents and reports.

3.7 **COST AND BENEFIT ANALYSIS OF THE NEW SYSTEM**

(1) OPERATING COST

Supplies (Diskettes, Ink, Stationeries)	=	N95,000:00
Equipment Maintenance	=	N120,000:00
Program Maintenance	=	N75,000:00
Labour cost (3 Operators)	=	N32,000:00
Utilities	=	N45,000:00
2 A/C (2 ? HP)	=	
N100,000:00		

Miscellaneous expenses	=	<u>N60,000:00</u>
		<u>N527,000:00</u>

(2) DEVELOPMENT COST

Systems Analysis And Design for 3weeks		N80,000:00
Software Development		N30,000:00
4 Personal Computers		N320,000:00
Installations		<u>N55,000:00</u>
		<u>N 485,000:00</u>
Grand Total of 1 and 2		<u>N1,012, 000:00</u>

3.8 BENEFITS OF THE PROPOSED SYSTEM

- (1) Faster preparation of all expenses.
- (2) Timely production of information when required
- (3) Reduction in the use of paper work.
- (4) Automatic updating of records and maintenance.
- (5) Elimination of many repetitive work of book keeping.

INPUT SPECIFICATION

This describes the way in which data enters the system for processing. The main input specification for this work involves certain number of data based files which are being used. This includes: -

- (1) Master .Dbf
- (2) Bank. Dbf
- (3) Dept. Dbf
- (4) Rank. Dbf

OUTPUT SPECIFICATION

One of the most relevant features of an information system for users is the output it

produces. The output specifications include: -

- (1) Pay Advice Slip
- (2) Payroll Total
- (3) Annual/Monthly returns of PAYE.

CHAPTER FOUR

SOFTWARE/PROGRAM DEVELOPMENT

4.0 INTRODUCTIONS: -

Programming is the preparation of a detailed sequence of operating instruction for particular problem to be run on a computer. It involves identification of the problem into a program flow chart, testing and running the programs. In programming, input and output must be specified because the output can always be determined by the inputs.

4.1 CHOICE OF LANGUAGE

In developing this system DBASE IV programming language is used. This is due to numerous facilities available.

4.2 FEATURES OF LANGUAGE CHOSEN

- (1) It provides a full relational database environment to users.
- (2) Using dbase iv, one can design databases, manipulate and edit records and files, generate reports, perform database query, design labels, and browse database without the use of command language.
- (3) Data can be verified automatically as they are entered into fields. Up to 255 fields can be specified per record.
- (4) Pop-up menus and windows can be designed.
- (5) It has a larger number of memory variables, user define functions up to 99 files can be opened at a time.

4.3 HARDWARE REQUIREMENTS

The proposed system requires the following:-

Personal Computer 386 main processor.

RAM - 16MB
Floppy Disk Drive - 3.5 / 5.25
SVGA Monitor
LaserJet Printer (6L)
Stabilizer 250VA
UPS 1000VA

4.4 SOFTWARE REQUIREMENT

MS - DOS 6.0 Version
DBASE IV
WINDOW 98 Version

4.5 STAFF TRAINING

The amount and period of training for this system will depend upon its complexity and the available skill on the ground presently. The proposed system will be users friendly. However, it is necessary to have an In-house training for the various personnel in the payroll section.

The training will cover areas like Basic computing and operation guidelines for the account staff in general. This training should not exceed three weeks of rigorous practicals in the usage of the packages designed.

4.6 CHANGEOVER PROCEDURE/SYSTEM CONVERSION

The following approaches could be used during conversion: -

- (1) The parallel approach - This is a method whereby the old method is operated simultaneously for some time with the new system. This is to make sure that the new system meets the requirements that the old system has been meeting all along and to determine whether the new system will be

able to stand the test of time.

- (2) Direct Method: - This is a method where the old system is discontinued and the new system becomes operational immediately.
- (3) Piecemeal method: - This is a method whereby changing to a new system is done gradually until the desired result is installed in other parts of the bank gradually. In the case of the Central Bank of Nigeria Minna, the new system will be implemented using the parallel method because of the advantage it has over other methods, since the new system will be operated simultaneously with the old system.

4.7 DATABASE STRUCTURE

MASTER.DBF:

This file contains the personal and payroll informations of all the employees in the organisation. The structure of this file is as stated below:

S/NO	FIELD NAME	FIELD TYPE	FIELD WIDTH	DECIMAL
1	SN	CHARACTER	5	-
2	NAME1	CHARACTER	20	-
3	NAME2	CHARACTER	20	-
4	NAME3	CHARACTER	20	-
5	DC	CHARACTER	2	-
6	RC	CHARACTER	2	-
7	GL	CHARACTER	2	-
8	GLS	CHARACTER	2	-
9	AS	NUMERIC	8	2
10	BC	CHARACTER	2	-
11	AN	CHARACTER	15	-
12	HA	NUMERIC	8	2
13	TA	NUMERIC	8	2
14	MS	NUMERIC	8	2
15	OA	NUMERIC	8	2
16	LA	NUMERIC	8	2

F

17	AA	NUMERIC	8	2
18	RA	NUMERIC	8	2
19	SA	NUMERIC	8	2
20	LTA	NUMERIC	8	2
21	BA	NUMERIC	8	2
22	MT	NUMERIC	8	2
23	UD	NUMERIC	8	2
24	MVL	NUMERIC	8	2
25	HL	NUMERIC	8	2
26	FL	NUMERIC	8	2
27	ER	NUMERIC	8	2
28	WR	NUMERIC	8	2
29	SAD	NUMERIC	8	2
30	RAD	NUMERIC	8	2
31	OVER	NUMERIC	8	2
32	BS	NUMERIC	8	2
33	GP	NUMERIC	8	2
34	DED	NUMERIC	8	2
35	NP	NUMERIC	8	2

BANK.DBF:

This is a database file that contain the list of all the employees in the organisation. Its structure is as given below:

S/NO	FIELD NAME	FIELD TYPE	F FIELD WIDTH	F DECIMAL	F
1	BC	CHARACTER	2	-	
2	BD	CHARACTER	15	-	

DEPT.DBF:

This is a database file that contain the list of all the available departments in the organisation. Its structure is as given below:

S/NO	FIELD NAME	FIELD TYPE	F FIELD WIDTH	F DECIMAL	F
------	------------	------------	---------------------	--------------	---

1	DC	CHARACTER	2	-
2	DD	CHARACTER	15	-

RANK.DBF:

This is a database file that contain the list of all the available ranks in the organisation.

Its structure is as given below:

S/NO	FIELD NAME	FIELD TYPE	F FIELD WIDTH	F DECIMAL	F
1	RC	CHARACTER	2	-	
2	RD	CHARACTER	15	-	

OUTPUT.DBF:

The OUTPUT.DBF is a file that contains the result of the monthly payroll processing.

The structure of this file is as stated below:

S/NO	FIELD NAME	FIELD TYPE	F FIELD WIDTH	F DECIMAL	F
1	SN	CHARACTER	5	-	
2	NAME1	CHARACTER	20	-	
3	NAME2	CHARACTER	20	-	
4	NAME3	CHARACTER	20	-	
5	DC	CHARACTER	2	-	
6	RC	CHARACTER	2	-	
7	GL	CHARACTER	2	-	
8	GLS	CHARACTER	2	-	
9	AS	NUMERIC	8	2	
10	BC	CHARACTER	2	-	
11	AN	CHARACTER	15	-	
12	HA	NUMERIC	8	2	
13	TA	NUMERIC	8	2	
14	MS	NUMERIC	8	2	
15	OA	NUMERIC	8	2	
16	LA	NUMERIC	8	2	

17	AA	NUMERIC	8	2
18	RA	NUMERIC	8	2
19	SA	NUMERIC	8	2
20	LTA	NUMERIC	8	2
21	BA	NUMERIC	8	2
22	MT	NUMERIC	8	2
23	UD	NUMERIC	8	2
24	MVL	NUMERIC	8	2
25	HL	NUMERIC	8	2
26	FL	NUMERIC	8	2
27	ER	NUMERIC	8	2
28	WR	NUMERIC	8	2
29	SAD	NUMERIC	8	2
30	RAD	NUMERIC	8	2
31	OVER	NUMERIC	8	2
32	BS	NUMERIC	8	2
33	GP	NUMERIC	8	2
34	DED	NUMERIC	8	2
35	NP	NUMERIC	8	2

4.8 SYSTEM DOCUMENTATION

Systems documentation is the description of how a system works. This is required to ensure a better understanding of the system by the users. The documentation of the new system provides information on how the system can be started and its operation.

4.8.1 STARTING THE SYSTEM

The execution of the programs required the installation of dBASE IV into the system. The source program would then be copied into a directory (e.g.

PAYROLL) on the hard disk (i.e. drive C). To start the system is as follows:

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

The execution of the above steps allows the main menu appear on the screen from which the user would select an appropriate choice using the options under the task code as shown in the various design in the output contain in the Appendix.

4.8.2 DESCRIPTION OF THE SYSTEM MENU

The main menu consists of five options as displayed in Chart 1 in the Appendix. Each of this is itemised and discussed as follows:

- * Staff Data Record
- * Staff Fringe Benefits
- * Payroll Computations
- * Reports Production
- * Quit

STAFF DATA RECORD

This option contains five sub-options as displayed in Chart II. It is used to manipulate the content of the master file i.e. STAFF.DBF which contain the details of the employees in the organisation. The sub-options are Add New Staff Data for entering new employee record, Edit Existing Staff Data for changing the existing employee record, View Existing Staff Data for viewing the existing employee record. Others are Erase Existing Staff Data for deleting the existing employee record as a result of termination or retirement and Quit for moving out of the sub-option. The screen design for each of these is represented by Chart III – VI in the Appendix.

STAFF FRINGE BENEFIT

This option enables the users to enter and modify allowance and deduction data for all the employees. The menu as shown on Chart VII has four sub-options

namely: Allowances' Details for entering and modifying allowance information, Deductions' Details for entering and modifying deduction information and Quit for moving out of the sub-option. The screen format for each of these is contained in Charts VIII – IX.

PAYROLL COMPUTATIONS

This option is used for processing payroll on a monthly basis. This is then used to generate data into the output file.

REPORT PRODUCTION

This is used to produce reports from the system representing the result of processing. It gives the users the hard copy result.

QUIT

This option is used exit the main system.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 SUMMARY

This project has been carried out with the aim of improving the manual system of preparing staff salary. It has been made possible using the Database Management System. Indeed, the computerised system developed has removed all the lapses that were characterised with the manual system as most of the work has now been automated. It now takes a very short time to process large volume of data with a very high degree of accuracy.

5.1 CONCLUSION

This project has been primarily focused at determining the feasibility of employing computers to process the payroll of the staff of Central Bank of Nigeria, Minna. Based on this, it was seen that computerised data processing is far more efficient than the manual system since it enables a larger and broad based information to be generated. Also, it was concluded that many companies feel very reluctant to incur the basic capital cost of computerised payroll activity. However, the long run usually proves them wrong as a computerized system minimises fraudulent manipulations.

5.2 RECOMMENDATIONS

The following recommendations have been specifically directed at the various organisations.

- (a) It should endeavour to see that all activities connected with accounting and funds are fully computerized to ensure proper accountability and thorough funds management.
- (b) The company should as a matter of necessity computerise her payroll activities to ensure accuracy, exactness and tamper-free salaries and wages administration.
- (c) Staff remuneration should also be enhanced to boost their morale.
- (d) The job of computersing should be done in-house to minimise cost and ensure thorough suitability of the Payroll package.
- (e) In terms of accuracy the new system provide for accurate processing and the generation of comprehensive reports.

REFERENCES

- (1) AVISORO, D.E. (1986) Information System Development. A database Approach. Blackweed Scientific Publication, Oxford, London.
- (2) Badamosi, R.O. (1996) Systems Analysis and Design. F.U.T. Minna (Un-published)
- (3) LUCAS, H.C. (1985) The analysis Design and Implementation of Information System. Mcgraw-Hills Inc.Singapore
- (4) Orilia, L.S. (1982) Introduction to Business Data Processing (2nd Edition) Mcgraw-Hills Inc. Mexico
- (5) SEWN, J.A. (1989) Analysis and Design of Information System. Mcgraw-Hills Publishers, Singapore.
- (6) Tomestw,E.B. (1979) Fundamentals of Computers Business. A ystem Approach. Holden - Dary Inc. S.O.D. Samsome street.
- (7) Wright, G.(1988) Mastering Computers. Macmillian Educational Limited, London

CENTRAL BANK OF NIGERIA, MINNA

COMPUTERISED PAYROLL SYSTEM

MAIN MENU

<u>TASK CODE</u>	<u>TASK</u>
1	STAFF DATA RECORD
2	STAFF FRINGE BENEFITS
3	PAYROLL COMPUTATIONS
4	REPORTS PRODUCTION
5	QUIT

SELECT ANY TASK CODE OF CHOICE:

CENTRAL BANK OF NIGERIA, MINNA

COMPUTERISED PAYROLL SYSTEM

STAFF DATA MENU

<u>TASK CODE</u>	<u>TASK</u>
1	ADD NEW STAFF DATA
2	EDIT EXISTING STAFF DATA
3	VIEW EXISTING STAFF DATA
4	ERASE EXISTING STAFF DATA
5	QUIT

SELECT ANY TASK CODE OF CHOICE:

CENTRAL BANK OF NIGERIA, MINNA

COMPUTERISED PAYROLL SYSTEM

STAFF DATA ENTRY SCREEN

ENTER STAFF NUMBER (OR TYPE 99999 TO EXIT): 06690 DATE: 12/12/99

SURNAME	FIRST NAME	OTHER NAMES
MAQUAL	FELIX	GEORGE

MARITAL STATUS CODE: M SEX: M DEPARTMENT CODE: 03 RANK CODE: 06

DATE OF FIRST APPOINTMENT: 12/06/84 TYPE OF APPOINTMENT: PERMANENT

GRADE LEVEL: 14 GRADE LEVEL STEP: 03 ANNUAL SALARY: # 360,000.00

BANK CODE: 01 ACCOUNT NUMBER: 01944287

SAVE STAFF DATA (Y/N):

CENTRAL BANK OF NIGERIA, MINNA

COMPUTERISED PAYROLL SYSTEM

STAFF DATA EDITTING SCREEN

ENTER STAFF NUMBER (OR TYPE 99999 TO EXIT): 06690

DATE: 12/12/99

SURNAME
MAQUAL

FIRST NAME
FELIX

OTHER NAMES
GEORGE

MARITAL STATUS CODE: M SEX: M DEPARTMENT CODE: 03 RANK CODE: 06

DATE OF FIRST APPOINTMENT: 12/06/84 TYPE OF APPOINTMENT: PERMANENT

GRADE LEVEL: 14 GRADE LEVEL STEP: 03 ANNUAL SALARY: # 360,000.00

BANK CODE: 01 ACCOUNT NUMBER: 01944287

SAVE STAFF DATA (Y/N):

CENTRAL BANK OF NIGERIA, MINNA

COMPUTERISED PAYROLL SYSTEM

STAFF DATA VIEWING SCREEN

ENTER STAFF NUMBER (OR TYPE 99999 TO EXIT): 06690 DATE: 12/12/99

SURNAME	FIRST NAME	OTHER NAMES
MAQUAL	FELIX	GEORGE

MARITAL STATUS CODE: M SEX: M DEPARTMENT CODE: 03 RANK CODE: 06

DATE OF FIRST APPOINTMENT: 12/06/84 TYPE OF APPOINTMENT: PERMANENT

GRADE LEVEL: 14 GRADE LEVEL STEP: 03 ANNUAL SALARY: # 360,000.00

BANK CODE: 01 ACCOUNT NUMBER: 01944287

VIEWING STAFF DATA - PRESS ANY KEY TO CONTINUE

CENTRAL BANK OF NIGERIA, MINNA

COMPUTERISED PAYROLL SYSTEM

STAFF DATA DELETING SCREEN

ENTER STAFF NUMBER (OR TYPE 99999 TO EXIT): 06690 DATE: 12/12/99

SURNAME	FIRST NAME	OTHER NAMES
MAQUAL	FELIX	GEORGE

MARITAL STATUS CODE: M SEX: M DEPARTMENT CODE: 03 RANK CODE: 06

DATE OF FIRST APPOINTMENT: 12/06/84 TYPE OF APPOINTMENT: PERMANENT

GRADE LEVEL: 14 GRADE LEVEL STEP: 03 ANNUAL SALARY: # 360,000.00

BANK CODE: 01 ACCOUNT NUMBER: 01944287 .

DELETE STAFF DATA (Y/N):

CENTRAL BANK OF NIGERIA, MINNA

COMPUTERISED PAYROLL SYSTEM

STAFF FRINGE BENEFIT MENU

TASK CODE

TASK

1

ALLOWANCES' DETAILS

2

DEDUCTIONS' DETAILS

3

QUIT

SELECT ANY TASK CODE OF CHOICE:

CENTRAL BANK OF NIGERIA, MINNA

COMPUTERISED PAYROLL SYSTEM

ALLOWANCE ENTRY SCREEN

06690 MAQUAL FELIX GEORGE
STAFF NO. SURNAME FIRST NAME OTHER NAMES

<u>ALLOWANCE NAME</u>	<u>AMOUNT</u>	<u>ALLOWANCE NAME</u>	<u>AMOUNT</u>
HOUSING ALLOWANCE	12,000.00	ACTING ALLOWANCE	0.00
TRANSPORT ALLOWANCE	7,500.00	RESPONSIBILITY ALLOWANCE	0.00
MEAL SUBSIDY	4,750.00	SHIFT ALLOWANCE	0.00
OVERTIME ALLOWANCE	0.00	LOCAL TRAINING ALLOWANCE	0.00
LEAVE ALLOWANCE	0.00	OTHER ALLOWANCES	9,560.00

SAVE ALLOWANCE DATA (Y/N) :

CENTRAL BANK OF NIGERIA, MINNA

COMPUTERISED PAYROLL SYSTEM

DEDUCTION ENTRY SCREEN

06690 MAQUAL FELIX GEORGE
STAFF NO. SURNAME FIRST NAME OTHER NAMES

<u>DEDUCTION NAME</u>	<u>AMOUNT</u>	<u>DEDUCTION NAME</u>	<u>AMOUNT</u>
MONTHLY TAX	1,250.00	ELECTRICAL RATES	0.00
UNION DUES	100.00	WATER RATES	0.00
MOTOR VEHICLE LOAN	0.00	SALARY ADVANCE DEDUCTION	0.00
HOUSING LOAN	0.00	RENT ADVANCE DEDUCTION	0.00
FURNITURE LOAN	0.00	OVER PAYMENT	0.00

SAVE ALLOWANCE DATA (Y/N) :

CENTRAL BANK OF NIGERIA, MINNA

COMPUTERISED PAYROLL SYSTEM

REPORTS PRODUCTION MENU

<u>TASK CODE</u>	<u>TASK</u>
1	DETAILS OF ALLOWANCES
2	DETAILS OF DEDUCTIONS
3	BANK SCHEDULE
4	STAFF LIST
5	QUIT

SELECT ANY TASK CODE OF CHOICE:

SOURCE PROGRAM DOCUMENTATION

PAYROLL.PRG

```
set scor off
set dele off
set stat off
set echo off
set safe off
set talk off
set bell off
set date brit
do whil .t.
  clear
  @ 0,15 to 24,64
  @ 21,21 to 23,58 double
  @ 1,25 say "CENTRAL BANK OF NIGERIA, MINNA"
  @ 2,25 to 2,54 doub
  @ 3,26 say "COMPUTERISED PAYROLL SYSTEM"
  @ 4,26 to 4,52 doub
  @ 6,35 say "MAIN MENU"
  @ 7,35 to 7,43 doub
  @ 9,18 say "TASK CODE"+space(18)+"TASK"
  @ 10,18 to 10,26 doub
  @ 10,45 to 10,48 doub
  @ 11,22 say "1"+space(18)+"STAFF DATA RECORD"
  @ 13,22 say "2"+space(18)+"STAFF FRINGE BENEFITS"
  @ 15,22 say "3"+space(18)+"PAYROLL COMPUTATIONS"
  @ 17,22 say "4"+space(18)+"REPORTS PRODUCTION"
  @ 19,22 say "5"+space(18)+"QUIT"
  @ 22,23 say "SELECT ANY TASK CODE OF CHOICE:"
do while .t.
  answer=space(1)
  @ 22,56 get answer pict '!'
  read
  if answer='1' .or. answer='2' .or. answer='3' .or. answer='4' .or. answer='5'
    exit
  endif
enddo
do case
  case answer='1'
    do wel1
```

```

case answer='2'
  do wel2
case answer='3'
  do wel3
case answer='4'
  do wel4
otherwise
  exit
endcase
endd
clea all
clea
retu

```

WEL1.PRG

```

do while .t.
  clear
  @ 0,15 to 24,64
  @ 21,21 to 23,58 double
  @ 1,25 say "CENTRAL BANK OF NIGERIA, MINNA"
  @ 2,25 to 2,54 doub
  @ 3,26 say "COMPUTERISED PAYROLL SYSTEM"
  @ 4,26 to 4,52 doub
  @ 6,32 say "STAFF DATA MENU"
  @ 7,32 to 7,46 doub
  @ 9,18 say "TASK CODE"+space(18)+"TASK"
  @ 10,18 to 10,26 doub
  @ 10,45 to 10,48 doub
  @ 11,22 say "1"+space(14)+"ADD NEW STAFF DATA"
  @ 13,22 say "2"+space(14)+"EDIT EXISTING STAFF DATA"
  @ 15,22 say "3"+space(14)+"VIEW EXISTING STAFF DATA"
  @ 17,22 say "4"+space(14)+"ERASE EXISTING STAFF DATA"
  @ 19,22 say "5"+space(14)+"QUIT"
  @ 22,23 say "SELECT ANY TASK CODE OF CHOICE:"
do while .t.
  answer=space(1)
  @ 22,56 get answer pict '!'
  read
  if answer='1' .or. answer='2' .or. answer='3' .or. answer='4' .or. answer='5'
    exit

```

```

endif
enddo
do case
  case answer='1'
    do wel11
  case answer='2'
    do wel12
  case answer='3'
    do wel13
  case answer='4'
    do wel14
  otherwise
    exit
endcase
endd
clea all
clea
retu

```

WEL11.PRG

```

today=date()
use master
do whil .t.
  clear
  go top
  @ 0,1 to 24,79
  @ 22,2 to 22,78 double
  @ 1,25 say "CENTRAL BANK OF NIGERIA, MINNA"
  @ 2,25 to 2,54 doub
  @ 4,26 say "COMPUTERISED PAYROLL SYSTEM"
  @ 5,26 to 5,52 doub
  @ 7,28 say "STAFF DATA ENTRY SCREEN"
  @ 8,28 to 8,50 doub
  asn=space(5)
  @ 10,4 say 'ENTER STAFF NUMBER ( OR TYPE 99999 TO EXIT):' get asn
  read
  if asn='99999'
    exit
  endif
  locate for asn=sn

```

```

if found()
  @ 23,17 say 'DUPLICATE STAFF NO. - PRESS ANY KEY TO GO BACK'
  set console off
  wait
  set console on
  loop
endif
store space(20) to aname1,aname2,aname3
store space(2) to adc,arc,agl,agls,abc
store space(1) to amsc,asex
adofa=ctod(' / / ')
atoa=space(10)
aan=space(15)
aas=0
@ 10,62 say 'DATE:'
set color to b/w+
@ 10,68 say today
set color to w+/b
@ 12,8 say 'SURNAME'
@ 12,35 say 'FIRST NAME'
@ 12,60 say 'OTHER NAMES'
@ 13,4 get aname1 pict '@!'
@ 13,30 get aname2 pict '@!'
@ 13,56 get aname3 pict '@!'
@ 15,4 say 'MARITAL STATUS CODE:' get amsc pict '!'
@ 15,30 say 'SEX:' get asex pict '!'
@ 15,40 say 'DEPARTMENT CODE:' get adc
@ 15,63 say 'RANK CODE:' get arc
@ 17,4 say 'DATE OF FIRST APPOINTMENT:' get adofa
@ 17,45 say 'TYPE OF APPOINTMENT:' get atoa pict '@!'
@ 19,4 say 'GRADE LEVEL:' get agl
@ 19,25 say 'GRADE LEVEL STEP:' get agls
@ 19,50 say 'ANNUAL SALARY: #'
@ 19,67 get aas pict '999,999.99'
@ 21,16 say 'BANK CODE:' get abc
@ 21,33 say 'ACCOUNT NUMBER:' get aan pict '@!'
read
@ 23,28 say "SAVE STAFF DATA (Y/N):"
do while .t.
  answer=space(1)
  @ 23,51 get answer pict '!'
  read

```

```

if answer='Y' .or. answer='N'
  exit
endif
enddo
if answer='Y'
  append blank
  repla sn with asn,name1 with aname1,name2 with aname2,name3 with aname3
  repla msc with amsc,sex with asex,dc with adc,rc with arc,dofa with adofa
  repla toa with atoa,gl with agl,gl with agls,as with aas,bc with abc
  repla an with aan,ha with 0,ta with 0,ms with 0,oa with 0,la with 0
  repla aa with 0,ra with 0,sa with 0,lt with 0,ba with 0,mt with 0
  repla ud with 0,mvl with 0,hl with 0,fl with 0,er with 0,wr with 0
  repla sad with 0,rad with 0,over with 0
endif
enddo
clear all
clear
return

```

WEL12.PRG

```

today=date()
use master
do while .t.
  clear
  go top
  @ 0,1 to 24,79
  @ 22,2 to 22,78 double
  @ 1,25 say "CENTRAL BANK OF NIGERIA, MINNA"
  @ 2,25 to 2,54 doub
  @ 4,26 say "COMPUTERISED PAYROLL SYSTEM"
  @ 5,26 to 5,52 doub
  @ 7,27 say "STAFF DATA EDITTING SCREEN"
  @ 8,27 to 8,52 doub
  asn=space(5)
  @ 10,4 say 'ENTER STAFF NUMBER ( OR TYPE 99999 TO EXIT):' get asn
  read
  if asn='99999'
    exit
  endif
  locate for asn=sn

```

```

if .not. found()
  @ 23,18 say 'ILLEGAL STAFF NO. - PRESS ANY KEY TO GO BACK'
  set console off
  wait
  set console on
  loop
endif
aname1=name1
aname2=name2
aname3=name3
adc=dc
arc=rc
agl=gl
agls=gls
abc=bc
amsc=msc
asex=sex
adofa=dofa
atoa=toa
aan=an
aas=as
@ 10,62 say 'DATE:'
set color to b/w+
@ 10,68 say today
set color to w+/b
@ 12,8 say 'SURNAME'
@ 12,35 say 'FIRST NAME'
@ 12,60 say 'OTHER NAMES'
@ 13,4 get aname1 pict '@!'
@ 13,30 get aname2 pict '@!'
@ 13,56 get aname3 pict '@!'
@ 15,4 say 'MARITAL STATUS CODE:' get amsc pict '!'
@ 15,30 say 'SEX:' get asex pict '!'
@ 15,40 say 'DEPARTMENT CODE:' get adc
@ 15,63 say 'RANK CODE:' get arc
@ 17,4 say 'DATE OF FIRST APPOINTMENT:' get adofa
@ 17,45 say 'TYPE OF APPOINTMENT:' get toa pict '@!'
@ 19,4 say 'GRADE LEVEL:' get agl
@ 19,25 say 'GRADE LEVEL STEP:' get agls
@ 19,50 say 'ANNUAL SALARY: #'
@ 19,67 get aas pict '999,999.99'
@ 21,16 say 'BANK CODE:' get abc

```

```

@ 21,33 say 'ACCOUNT NUMBER:' get aan pict '@!'
read
@ 23,28 say "SAVE STAFF DATA (Y/N):"
do while .t.
  answer=space(1)
  @ 23,51 get answer pict '!'
  read
  if answer='Y' .or. answer='N'
    exit
  endif
enddo
if answer='Y'
  repla sn with asn,name1 with aname1,name2 with aname2,name3 with aname3
  repla msc with amsc,sex with asex,dc with adc,rc with arc,dofa with adofa
  repla toa with atoa,gl with agl,gl with agls,as with aas,bc with abc
  repla an with aan
endif
enddo
clear all
clear
return

```

WEL13.PRG

```

today=date()
use master
do whil .t.
  clear
  go top
  @ 0,1 to 24,79
  @ 22,2 to 22,78 double
  @ 1,25 say "CENTRAL BANK OF NIGERIA, MINNA"
  @ 2,25 to 2,54 doub
  @ 4,26 say "COMPUTERISED PAYROLL SYSTEM"
  @ 5,26 to 5,52 doub
  @ 7,27 say "STAFF DATA VIEWING SCREEN"
  @ 8,27 to 8,51 doub
  asn=space(5)
  @ 10,4 say 'ENTER STAFF NUMBER ( OR TYPE 99999 TO EXIT):' get asn
  read
  if asn='99999'

```



```

    exit
endif
locate for asn=sn
if .not. found()
    @ 23,18 say 'ILLEGAL STAFF NO. - PRESS ANY KEY TO GO BACK'
    set console off
    wait
    set console on
    loop
endif
aname1=name1
aname2=name2
aname3=name3
adc=dc
arc=rc
agl=gl
agls=gls
abc=bc
amsc=msc
asex=sex
adofa=dofa
atoa=toa
aan=an
aas=as
@ 10,62 say 'DATE:'
set color to b/w+
@ 10,68 say today
set color to w+/b
@ 12,8 say 'SURNAME'
@ 12,35 say 'FIRST NAME'
@ 12,60 say 'OTHER NAMES'
@ 13,4 get aname1 pict '@!'
@ 13,30 get aname2 pict '@!'
@ 13,56 get aname3 pict '@!'
@ 15,4 say 'MARITAL STATUS CODE:' get amsc pict '!'
@ 15,30 say 'SEX:' get asex pict '!'
@ 15,40 say 'DEPARTMENT CODE:' get adc
@ 15,63 say 'RANK CODE:' get arc
@ 17,4 say 'DATE OF FIRST APPOINTMENT:' get adofa
@ 17,45 say 'TYPE OF APPOINTMENT:' get atoa pict '@!'
@ 19,4 say 'GRADE LEVEL:' get agl
@ 19,25 say 'GRADE LEVEL STEP:' get agls

```

```

@ 19,50 say 'ANNUAL SALARY: #'
@ 19,67 get aas pict '999,999.99'
@ 21,16 say 'BANK CODE:' get abc
@ 21,33 say 'ACCOUNT NUMBER:' get aan pict '@!'
clear gets
@ 23,17 say "VIEWING STAFF DATA - PRESS ANY KEY TO CONTINUE"
set console off
wait
set console on
enddo
clear all
clear
return

```

WEL14.PRG

```

today=date()
use master
do while .t.
  clear
  go top
  @ 0,1 to 24,79
  @ 22,2 to 22,78 double
  @ 1,25 say "CENTRAL BANK OF NIGERIA, MINNA"
  @ 2,25 to 2,52 doub
  @ 4,26 say "COMPUTERISED PAYROLL SYSTEM"
  @ 5,26 to 5,52 doub
  @ 7,27 say "STAFF DATA DELETING SCREEN"
  @ 8,27 to 8,52 doub
  asn=space(5)
  @ 10,4 say 'ENTER STAFF NUMBER ( OR TYPE 99999 TO EXIT):' get asn
  read
  if asn='99999'
    exit
  endif
  locate for asn=sn
  if .not. found()
    @ 23,18 say 'ILLEGAL STAFF NO. - PRESS ANY KEY TO GO BACK'
    set console off
    wait
    set console on

```

```

loop
endif
aname1=name1
aname2=name2
aname3=name3
adc=dc
arc=rc
agl=gl
agls=gls
abc=bc
amsc=msc
asex=sex
adofa=dofa
atoa=toa
aan=an
aas=as
@ 10,62 say 'DATE:'
set color to b/w+
@ 10,68 say today
set color to w+/b
@ 12,8 say 'SURNAME'
@ 12,35 say 'FIRST NAME'
@ 12,60 say 'OTHER NAMES'
@ 13,4 get aname1 pict '@!'
@ 13,30 get aname2 pict '@!'
@ 13,56 get aname3 pict '@!'
@ 15,4 say 'MARITAL STATUS CODE:' get amsc pict '!'
@ 15,30 say 'SEX:' get asex pict '!'
@ 15,40 say 'DEPARTMENT CODE:' get adc
@ 15,63 say 'RANK CODE:' get arc
@ 17,4 say 'DATE OF FIRST APPOINTMENT:' get adofa
@ 17,45 say 'TYPE OF APPOINTMENT:' get atoa pict '@!'
@ 19,4 say 'GRADE LEVEL:' get agl
@ 19,25 say 'GRADE LEVEL STEP:' get agls
@ 19,50 say 'ANNUAL SALARY: #'
@ 19,67 get aas pict '999,999.99'
@ 21,16 say 'BANK CODE:' get abc
@ 21,33 say 'ACCOUNT NUMBER:' get aan pict '@!'
clear gets
@ 23,27 say "DELETE STAFF DATA (Y/N):"
do while .t.
    answer=space(1)

```

```

@ 23,52 get answer pict '!'
read
if answer='Y' .or. answer='N'
  exit
endif
enddo
if answer='Y'
  delete
  pack
endif
enddo
clear all
clear
return

```

WEL2.PRG

```

do while .t.
  clear
  @ 1,15 to 22,64
  @ 19,21 to 21,58 double
  @ 2,25 say "CENTRAL BANK OF NIGERIA, MINNA"
  @ 3,25 to 3,54 doub
  @ 5,26 say "COMPUTERISED PAYROLL SYSTEM"
  @ 6,26 to 6,52 doub
  @ 8,27 say "STAFF FRINGE BENEFIT MENU"
  @ 9,27 to 9,51 doub
  @ 11,18 say "TASK CODE"+space(18)+"TASK"
  @ 12,18 to 12,26 doub
  @ 12,45 to 12,48 doub
  @ 13,22 say "1"+space(20)+"ALLOWANCES' DETAILS"
  @ 15,22 say "2"+space(20)+"DEDUCTIONS' DETAILS"
  @ 17,22 say "3"+space(20)+"QUIT"
  @ 20,23 say "SELECT ANY TASK CODE OF CHOICE:"
  do while .t.
    answer=space(1)
    @ 20,56 get answer pict '!'
    read
    if answer='1' .or. answer='2' .or. answer='3'
      exit
    endif
  enddo
enddo

```

```

enddo
do case
  case answer='1'
    do wel21
  case answer='2'
    do wel22
  otherwise
    exit
endcase
endd
clea all
clea
retu

```

WEL21.PRG

```

use master
do while .t.
  clear
  go top
  @ 0,1 to 24,79
  @ 10,2 to 10,78 double
  @ 22,2 to 22,78 double
  @ 1,25 say "CENTRAL BANK OF NIGERIA, MINNA"
  @ 2,25 to 2,54 doub
  @ 3,26 say "COMPUTERISED PAYROLL SYSTEM"
  @ 4,26 to 4,52 doub
  @ 5,29 say "ALLOWANCE ENTRY SCREEN"
  @ 6,29 to 6,50 doub
  asn=space(5)
  @ 8,3 say 'ENTER STAFF NO. OR (TYPE 99999 TO EXIT):' get asn
  read
  if asn='99999'
    exit
  endif
  locate for asn=sn
  if .not. found()
    @ 23,18 say 'ILLEGAL STAFF NO. - PRESS ANY KEY TO GO BACK'
    set console off
    wait
    set console on

```

```

loop
endif
aname1=name1
aname2=name2
aname3=name3
@ 8,2 clear to 8,69
@ 9,3 say 'STAFF NO.'
@ 9,18 say 'SURNAME'
@ 9,40 say 'FIRST NAME'
@ 9,62 say 'OTHER NAMES'
@ 8,5 get asn
@ 8,14 get aname1
@ 8,36 get aname2
@ 8,58 get aname3
clear gets
@ 11,40 to 21,40 double
@ 11,6 say 'ALLOWANCE NAME'
@ 11,31 say 'AMOUNT'
@ 11,45 say 'ALLOWANCE NAME'
@ 11,71 say 'AMOUNT'
@ 12,6 to 12,19 double
@ 12,31 to 12,36 double
@ 12,45 to 12,58 double
@ 12,71 to 12,76 double
set colo to b/w+
@ 13,3 say 'HOUSING ALLOWANCE'
@ 13,43 say 'ACTING ALLOWANCE'
@ 15,3 say 'TRANSPORT ALLOWANCE'
@ 15,43 say 'RESPONSIBILITY ALLOWANCE'
@ 17,3 say 'MEAL SUBSIDY'
@ 17,43 say 'SHIFT ALLOWANCE'
@ 19,3 say 'OVERTIME ALLOWANCE'
@ 19,43 say 'LOCAL TRAINING ALLOWANCE'
@ 21,3 say 'LEAVE ALLOWANCE'
@ 21,43 say 'OTHER ALLOWANCES'
set color to w+/b
aha=ha
aaa=aa
ata=ta
ara=ra
ams=ms
asa=sa

```

```

aoa=oa
alta=lta
ala=la
aba=ba
@ 13,29 get aha pict '99,999.99'
@ 13,69 get aaa pict '99,999.99'
@ 15,29 get ata pict '99,999.99'
@ 15,69 get ara pict '99,999.99'
@ 17,29 get ams pict '99,999.99'
@ 17,69 get asa pict '99,999.99'
@ 19,29 get aoa pict '99,999.99'
@ 19,69 get alta pict '99,999.99'
@ 21,29 get ala pict '99,999.99'
@ 21,69 get aba pict '99,999.99'
read
@ 23,26 say "SAVE ALLOWANCE DATA (Y/N):"
do while .t.
  answer=space(1)
  @ 23,53 get answer pict '!'
  read
  if answer='Y' .or. answer='N'
    exit
  endif
enddo
if answer='Y'
  replace ha with aha,aa with aaa,ta with ata,ra with ara,ms with ams
  replace sa with asa,oa with aoa,lta with alta,la with ala,ba with aba
endif
enddo
clear all
clear
return

```

WEL22.PRG

```

use master
do whil .t.
  clear
  go top
  @ 0,1 to 24,79
  @ 10,2 to 10,78 double

```

```

@ 22,2 to 22,78 double
@ 1,25 say "CENTRAL BANK OF NIGERIA, MINNA"
@ 2,25 to 2,54 doub
@ 3,26 say "COMPUTERISED PAYROLL SYSTEM"
@ 4,26 to 4,52 doub
@ 5,29 say "DEDUCTION ENTRY SCREEN"
@ 6,29 to 6,50 doub
asn=space(5)
@ 8,3 say 'ENTER STAFF NO. OR (TYPE 99999 TO EXIT):' get asn
read
if asn='99999'
    exit
endif
locate for asn=sn
if .not. found()
    @ 23,18 say 'ILLEGAL STAFF NO. - PRESS ANY KEY TO GO BACK'
    set console off
    wait
    set console on
    loop
endif
aname1=name1
aname2=name2
aname3=name3
@ 8,2 clear to 8,69
@ 9,3 say 'STAFF NO.'
@ 9,18 say 'SURNAME'
@ 9,40 say 'FIRST NAME'
@ 9,62 say 'OTHER NAMES'
@ 8,5 get asn
@ 8,14 get aname1
@ 8,36 get aname2
@ 8,58 get aname3
clear gets
@ 11,40 to 21,40 double
@ 11,6 say 'DEDUCTION NAME'
@ 11,31 say 'AMOUNT'
@ 11,45 say 'DEDUCTION NAME'
@ 11,71 say 'AMOUNT'
@ 12,6 to 12,19 double
@ 12,31 to 12,36 double
@ 12,45 to 12,58 double

```



```

@ 12,71 to 12,76 double
set colo to n/w
@ 13,3 say 'MONTHLY TAX'
@ 13,43 say 'ELECTRICAL RATES'
@ 15,3 say 'UNION DUES'
@ 15,43 say 'WATER RATES'
@ 17,3 say 'MOTOR VEHICLE LOAN'
@ 17,43 say 'SALARY ADVANCE DEDUCTION'
@ 19,3 say 'HOUSING LOAN'
@ 19,43 say 'RENT ADVANCE DEDUCTION'
@ 21,3 say 'FURNITURE LOAN'
@ 21,43 say 'OVER PAYMENT'
set color to
amt=mt
aud=ud
amvl=mvl
ahl=hl
afl=fl
aer=er
awr=wr
asad=sad
arad=rad
aover=over
@ 13,29 get amt pict '99,999.99'
@ 13,69 get aer pict '99,999.99'
@ 15,29 get aud pict '99,999.99'
@ 15,69 get awr pict '99,999.99'
@ 17,29 get amvl pict '99,999.99'
@ 17,69 get asad pict '99,999.99'
@ 19,29 get ahl pict '99,999.99'
@ 19,69 get arad pict '99,999.99'
@ 21,29 get afl pict '99,999.99'
@ 21,69 get aover pict '99,999.99'
read
@ 23,26 say "SAVE ALLOWANCE DATA (Y/N):"
do while .t.
  answer=space(1)
  @ 23,53 get answer pict '!'
  read
  if answer='Y' .or. answer='N'
    exit
  endif

```

```
    enddo
    if answer='Y'
        replace mt with amt,ud with aud,mvl with amvl,hl with ahl,fl with afl
        replace er with aer,wr with awr,sad with asad,rad with arad,over with aover
    endif
enddo
clear all
clear
return
```

WEL3.PRG

```
use output
if .not. eof()
    zap
endif
use
select 1
    use master
select 2
    use output
select 1
do while .not. eof()
    asn=sn
    aname1=name1
    aname2=name2
    aname3=name3
    adc=dc
    arc=rc
    agl=gl
    agls=gls
    aas=as
    abc=bc
    aan=an
    aha=ha
    ata=ta
    ams=ms
    aoa=oa
    ala=la
    aaa=aa
    ara=ra
```

```

asa=sa
alta=lta
aba=ba
amt=mt
aud=ud
amvl=mvl
ahl=hl
afl=fl
aer=er
awr=wr
asad=sad
arad=rad
aover=over
abs=aas/12
agp=abs+aha+ata+ams+aoa+ala+aaa+ara+asa+alta+aba
aded=amt+aud+amvl+ahl+afl+aer+awr+asad+arad+aover
anp=agp-aded
select 2
append blank
repla sn with asn,name1 with aname1,name2 with aname2,name3 with aname3
repla dc with adc,rc with arc,gl with agl,gls with agls,as with aas
repla bc with abc,an with aan,ha with aha,ta with ata,ms with ams
repla oa with aoa,la with ala,aa with aaa,ra with ara,sa with asa
repla lta with alta,ba with aba,mt with amt,ud with aud,mvl with amvl
repla hl with ahl,fl with afl,er with aer,wr with awr,sad with asad
repla rad with arad,over with aover,bs with abs,gp with agp
repla ded with aded,np with anp
select 1
skip
enddo
clear all
clear
return

```

WEL4.PRG

```

do while .t.
clear
@ 0,15 to 24,64
@ 21,21 to 23,58 double
@ 1,25 say "CENTRAL BANK OF NIGERIA, MINNA"

```

```

@ 2,25 to 2,54 doub
@ 3,26 say "COMPUTERISED PAYROLL SYSTEM"
@ 4,26 to 4,61 doub
@ 6,28 say "REPORTS PRODUCTION MENU"
@ 7,28 to 7,50 doub
@ 9,18 say "TASK CODE"+space(18)+"TASK"
@ 10,18 to 10,26 doub
@ 10,45 to 10,48 doub
@ 11,22 say "1"+space(18)+"DETAILS OF ALLOWANCES"
@ 13,22 say "2"+space(18)+"DETAILS OF DEDUCTIONS"
@ 15,22 say "3"+space(18)+"BANK SCHEDULE"
@ 17,22 say "4"+space(18)+"STAFF LIST"
@ 19,22 say "5"+space(18)+"QUIT"
@ 22,23 say "SELECT ANY TASK CODE OF CHOICE:"
do while .t.
  answer=space(1)
  @ 22,56 get answer pict '!'
  read
  if answer='1' .or. answer='2' .or. answer='3' .or. answer='4' .or. answer='5'
    exit
  endif
enddo
do case
  case answer='1'
    do wel41
  case answer='2'
    do wel42
  case answer='3'
    do wel43
  case answer='4'
    do wel44
  otherwise
    exit
endcase
endd
clea all
clea
retu

```

Structure for database: C:\CBN\BANK.DBF

Number of data records: 0

Date of last update : 07/07/96

Field	Field Name	Type	Width	Dec	Index
1	BC	Character	2		N
2	BD	Character	15		N
** Total **			18		

Structure for database: C:\CBN\RANK.DBF

Number of data records: 0

Date of last update : 07/07/96

Field	Field Name	Type	Width	Dec	Index
1	RC	Character	2		N
2	RD	Character	15		N
** Total **			18		

Structure for database: C:\CBN\DEPT.DBF

Number of data records: 0

Date of last update : 07/07/96

Field	Field Name	Type	Width	Dec	Index
1	DC	Character	2		N
2	DD	Character	15		N
** Total **			18		

Structure for database: C:\CBN\OUTPUT.DBF
 Number of data records: 10
 Date of last update : 12/12/99

Field	Field Name	Type	Width	Dec	Index
1	SN	Character	5		N
2	NAME1	Character	20		N
3	NAME2	Character	20		N
4	NAME3	Character	20		N
5	DC	Character	2		N
6	RC	Character	2		N
7	GL	Character	2		N
8	GLS	Character	2		N
9	AS	Numeric	2		N
10	BC	Character	15	2	N
11	AN	Character	8	2	N
12	HA	Numeric	8	2	N
13	TA	Numeric	8	2	N
14	MS	Numeric	8	2	N
15	OA	Numeric	8	2	N
16	LA	Numeric	8	2	N
17	AA	Numeric	8	2	N
18	RA	Numeric	8	2	N
19	SA	Numeric	8	2	N
20	LTA	Numeric	8	2	N
21	BA	Numeric	8	2	N
22	MT	Numeric	8	2	N
23	UD	Numeric	8	2	N
24	MVL	Numeric	8	2	N
25	HL	Numeric	8	2	N
26	FL	Numeric	8	2	N
27	ER	Numeric	8	2	N
28	WR	Numeric	8	2	N
29	SAD	Numeric	8	2	N
30	RAD	Numeric	8	2	N
31	OVER	Numeric	8	2	N
32	BS	Numeric	8	2	N
33	GP	Numeric	8	2	N
34	DED	Numeric	8	2	N
35	NP	Numeric	8	2	N
Total **			291		N