PAYROLL SYSTEM

FOR

EMPLOYEES OF
F.G. BOYS HIGH SCHOOL NO. 2
SADDAR, LAHORE CANTT

BY

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AND

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A dissertation submitted to Quaid-i-Azam University, Islamabad for the award of Post Graduate Diploma in Computer Science.

DEDICATED TO OUR PARENTS, BROTHERS
AND LOVING SISTERS

PROJECT BRIEF

Project Title	Payroll system for the employees of F.G. Boys High School # 2, Saddar Bazar, Lahore Cantt.
Undertaken by	Muhammad Saeed Sajid and Shahid Masood
Supervised by	Mr. Abdul Subhan Computer Centre, Quaid-i-Azam University Islamabad
Starting date	12-03-2002
Completion date	
Software used	ORACLE 7 for WINDOWS 95 & DEVELOPER 2000

CERTIFICATION

Certified that we have read the dissertation carefully submitted by Muhammad Saeed Sajid and Shahid Masood, and we have found it upto the standard to warrant its acceptance by Quaid-i-Azam University for the award of Post Graduate Diploma in Computer Science.

COMMITTEE:

1. External Examiner: _____

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   (Abdul Subhan)

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ACKNOWLEDGEMENT

First of all we are very grateful to Almighty Allah, who helped us and gave us courage to undertake and complete this project successfully. We are highly obliged to our supervisor Mr. Abdul Subhan, Assistant Programmer, Quaid-i-Azam University, Islamabad. Who has provided his invaluable advise throughout project work and supported morally during our entire academic carrier in campus.

Our thanks are also due to our family members especially our loving parents brothers and sisters who always remember us in their prayers. We are also thankful to our friend Mr. Abdul Wahdood Khan who gave us good friendship.

Muhammad Saeed Sajid

and

Shahid Masood

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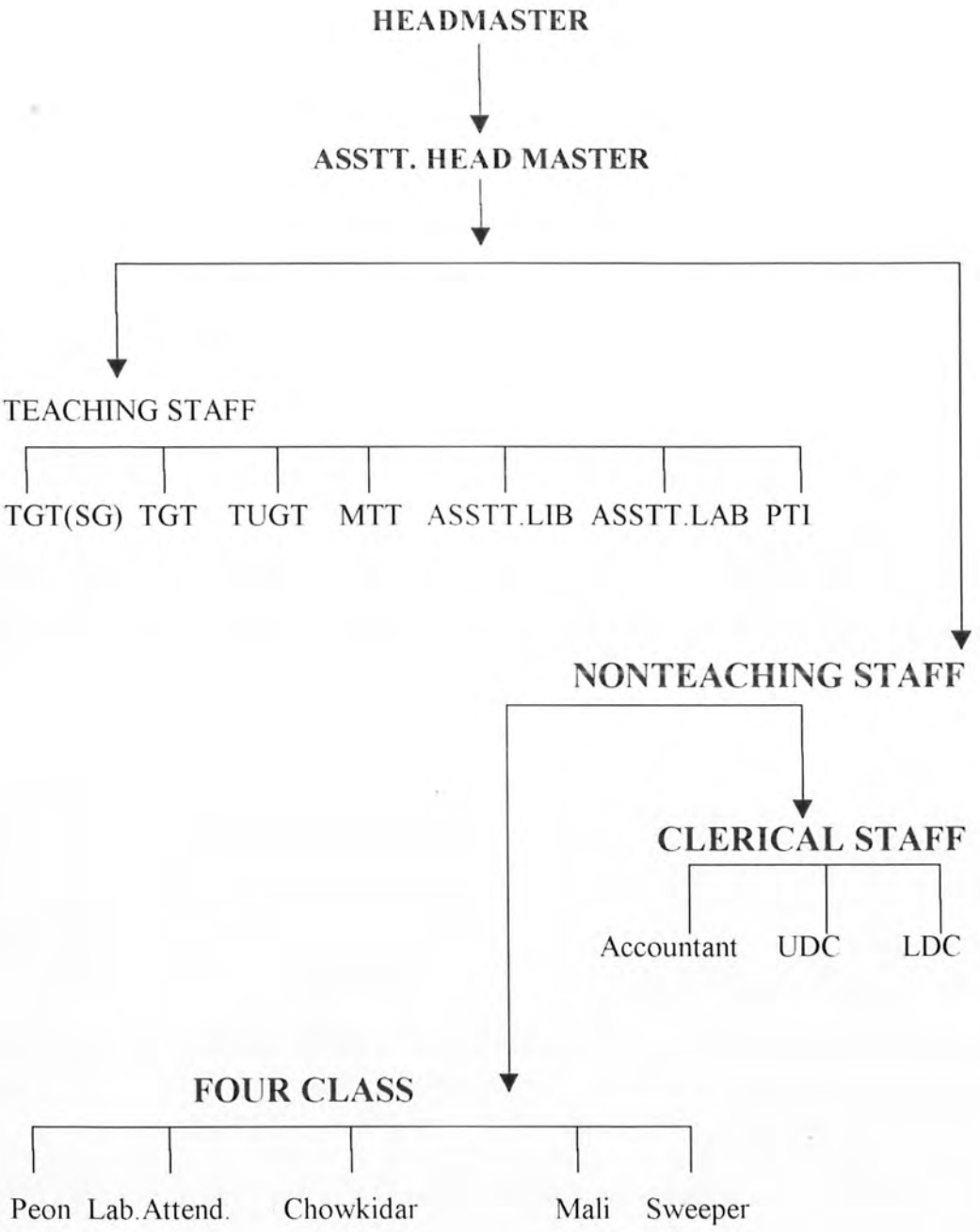
CHAPTER NO.1

INTRODUCTION OF THE INSTITUTION

This institution is situated in Saddar Bazar, Lahore Cantt. This institution was established in 1916 as C.B. Primary School. It remained Primary School upto 1980. In 1977 Army took the charge of all Cantt Board Institutions. These institution were named as Federal Government Institutions; and the above mentioned school was named as F.G. Primary School No.2 Lahore Cantt. In 1980 this institution was upgraded as F.G. Middle School and in 1983 as F.G. High School # 2 Saddar Bazar, Lahore Cantt.

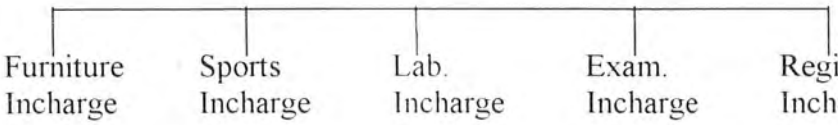
There are about 50 staff members and about 1500 students.

STAFF F.G. BOYS HIGH SCHOOL NO. 2
LAHORE CANTT.



Staff members are allotted the following responsibilities:

STAFF RESPONSIBILITIES



The above mentioned responsibilities are additional to teach the classes.

SERVICES:- The employees of this institution are Federal Government servants. According to the requirement of the institution. Some employees are appointed on contract.

OBJECTIVES:- The primary objective of this institution is to provide education to the children of Army personnels and Cantt residents upto class 10.

CHAPTER NO. 2

THE EXISTING SYSTEM

2.1 Problem Definition:-

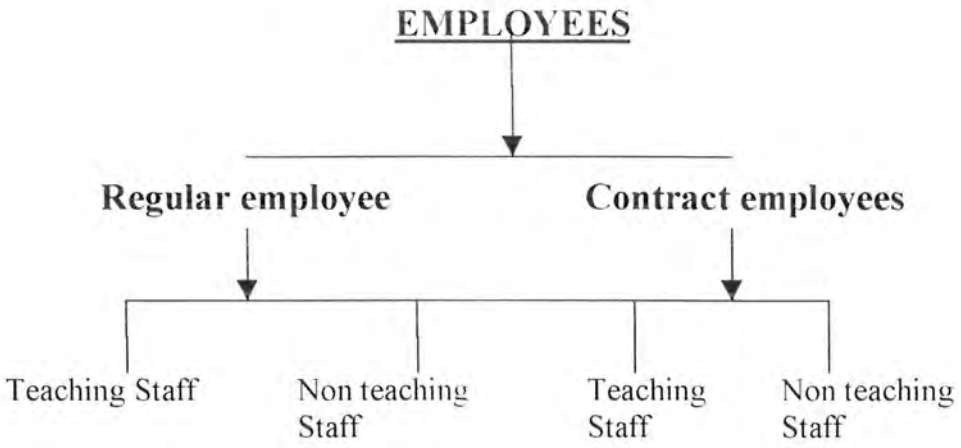
There is already a payroll system in F.G. Boys High School # 2, Lahore Cantt. This payroll system is manual. There are two clerks and an accountant for the purpose. Problems and errors appear in the paybills of the institution. As the world is becoming modern day by day so that there is need to computerize the payroll system of the institution.

2.2 Project introduction:-

We are living in the computer age. Many facts of our lives are touched somewhere, somehow by computer. Computer Science is a study of computer, and their uses. It includes the design and use of software. Computer is ideal for solving problems, starting large amount of data and quick access for long detailed calculation and routines of repetitive control functions.

The main function of this project is to develop a software for payroll system for F.G. Boys High School # 2, Saddar Bazar, Lahore Cantt.

2.3 Structure of employees:-

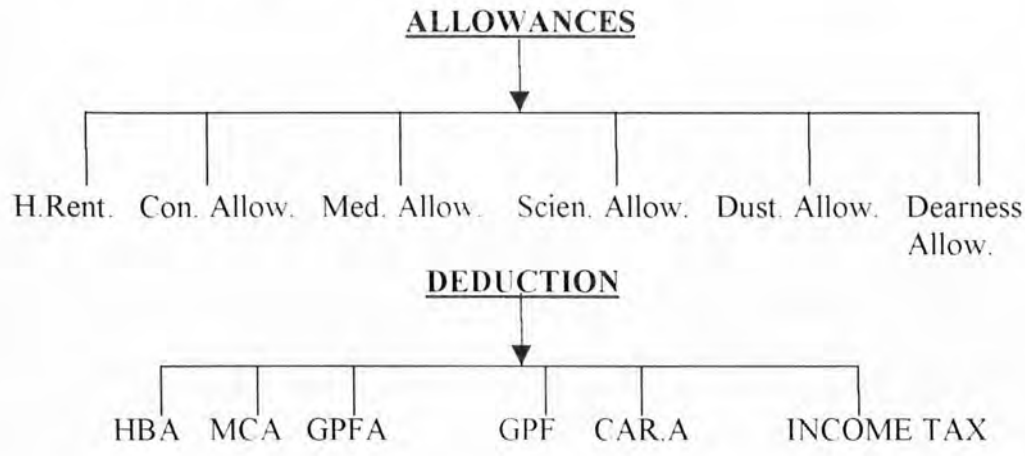


F.G. Boys High School # 2, Lahore Cantt consists of two types of employees:

a) regular employees
b) contract employees

Regular employees are differentiated on the basis of the specified pay scales. These scales vary from 1 to 18. Regular employees are categorized into two sections:

1. Teaching staff
2. Non teaching staff



PAY

Gross Pay
= Basic Pay + Allowance

Net Pay
Gross Pay – Deduction

The pay determined for employees of F.G. Boys High School # 2, Saddar Lahore Cantt., depends upon the type of employees. If the type of employee is regular then the formula of their net pay is as follows:-

Gross pay = Basic + Allowances

Net pay = Gross pay – deductions

Basic pay depends on Grade and allowances also depend on grade and basic pay.

The Grade of an employee may be changed i.e. promotion or move over, selection grade.

If the type of an employee is on contract then there is only net pay i.e. no deduction and no allowances.

2.4.1 Allowance

The various types of allowances are given monthly to regular employee by Federal. These allowances are explained as under:

1. **House rent allowance**

House rent allowance is given to all the employees of Federal Government Boys High School # 2, Lahore Cantt. House; rent allowance is computed as 45% of basic of all the employees.

$$\text{House rent allowance} = \left(\frac{45}{100}\right) \times \text{Basic pay}$$

2. **Conveyance allowance**

This allowance is given to employees according to their basic pay. If basic pay is less than Rs. 3500 then this allowance is Rs. 93. If basic pay is greater than Rs. 35000 then this allowance is Rs. 193.

3. **Medical allowance**

Medical allowance is given to all regular employees having grades less than 16.

Regular employees having grade 16 and above have to submit medical bills duly countersigned by the MS of federal dispensary.

4. **Science allowance**

Science allowance is only admissible to the teaching staff having designation TGT(SG), TGT, Asstt H/M, Headmaster having qualification atleast B. Sc. B. Ed and teaching Science subjects to high classes.

5. **Dust allowance**

Dust allowance is only give to the sweepers and peons.

6. **Dearness allowance**

This allowance is given to every regular employee. This allowance is 25% of basic pay.

7. **Increment**

The amount of increment vary from employee to employee on the basis of their basic pay scale.

2.4.2 DEDUCTION

The detail of deductions is explained as under:-

1. **GP Fund**

GP fund is abbreviated for GENERAL PROVIDENT FUND. The GP fund is deducted from the gross pay of each employee with respective Grade. It means GP fund varies as the grade will change.

2. **Income Tax**

If the total basic pay of a year of an employee is greater than Rs: 50000 then the employee has to pay the income tax on the amount above Rs: 50000. The income tax is calculated as:

$$\text{Income Tax} : (\text{Basic pay} * 12 - 50000) * \frac{10}{100}$$

2.4.2.1 Advances

The regular employees can take the following advances:

1. **GP FUND ADVANCE: (GPFA)**

All employees can take loan from their GP Funds. The GP Fund advance is taken 50% of the total GP Fund amount i.e.

$$\text{GPF Advance} = \frac{50}{100} * \text{GPF} - \text{Amt.}$$

2. **House Building Advance: (HBA)**

Employees of FGEIS having service more than ten years can take 36 basic pays as HBA on providing registry of the land owned by the employee. The employee has to pay back the loan in ten years in

equal amount of installment. There is no interest on HBA for employees having grade below 16. The employee having grade 16 and above have to pay the interest at the rate they are taking interest on their GP Fund.

3. **Motor Cycle Advance: (MCA)**

All employees having service at least 5 years can take Rs. 35000 as motorcycle advance. They have to pay back this advance in five years. They have to pay interest on advance as well.

4. **Car Advance (CARA)**

Employees having grade 17 and above with 5 years service can take Rs: 100000 as car advance. The employee has to pay back advance within five years with equal amount of installments. Employee has to pay interest on advance as well.

CHAPTER NO. 3

SYSTEM DESIGNING PHASE

3.1 Proposed System

The next and most important phase after the study of existing system in the design of new system.

The proposed system has been designed after conducting a detailed study of the present system. The proposed system is developed in a more powerful software tool which is more efficient reliable and economical than the present system.

3.2 Proposed payroll system

The proposed payroll system meets approximately all the requirements of the management, relating monthly payroll of its employees. It is also able to store important data and produce required reports such as pay slip, loans balance report.

3.3 Objectives of the proposed system.

Here are some of the objectives, which the proposed system will meet. It should be F.G. Boys High School # 2, Lahore Cantt, and should be cost beneficial. It should provide timely and accurate report to the management. It should be more efficient than the existing system, involving less time and efforts.

With the passage of time some records of the file become obsolete and have to be deleted or changed, and there may be some new records which have to be inserted so maintenance of files should be easy.

The flow of information should be smooth and there should be no probability of duplicate and irrelevant data.

The proposed system should be flexible and should cope with the future needs of the school.

3.4 Software Selection

The choice of software is very important and depends upon the problems which the current system is facing. This is because of various facilities provided by different languages and packages. After a lot of considerations ORACLE DEVELOPER 2000 is proposed to be quite appropriate. ORACLE DATABASE is a collection of ;tables to be treated as a unit. ORACLE tables consist of opera;ting system files. Physically. There are "database files" and redo log file". Logically the database files contain a set of dictionary and user tables whereas redo log files contains data recovery. There are also one or more control tables that identify and describe the rest of database.

3.4.1 What is RDBMS

The RDBMS (relational database management system) is a high performance fast tolerant database management system, especially designed for on line transaction processing and large database applications. The

database is mostly manipulated in the SQL (Structure query language) which is considered as the heart of the RDBMS. Its popularity is due to its ease of use flexibility and capability. The SQL is divided into four categories:

Queries

Data manipulation statements, that are used to insertion, deletion and modification of data.

Data definition statements, that are used to define, maintain and drop database objects, which are no longer need, including the database tables.

Data control statements that are used to control access to the database as well as to its data.

Advantages

Provides easy access to data. Reduces data storage and redundancy. Independent of physical storage and logical data design. Provides a high level data manipulation language.

Following are the major parts of selected S/W tools.

3.4.2 ORACLE PL/SQL PROGRAMMING

P/L/SQL stands for procedural language/structured querry language. SQL is flexible efficient language with features designed to manipulate and examine relational data. Pl/SQL extends SQL by adding constructs found in other procedural language such as variable and types control structure and loops procedures and functions.

3.4.3 ORACLE FORMS

Oracle forms is a major product within the developer 2000. Oracle forms enable one to quickly develop form based applications for presenting and manipulation data is a variety of ways.

Oracle forms applications let user to insert, update delete and query data using a variety of interface items. Control forms across several windows and data base transactions.

Access the facilities of oracle graphics and OLE2 applications directly.

3.4.4. Oracle Reports

Oracle reports is a lost for developing displaying and printing production quality reports. It is designed for application developers who are familiar with SQL and PL/SQL.

Major a features of oracle reports are data model and layout editors in which one can create the structure and format the report. Packages function for creating computations. Conditional printing capabilities.

Fully integrated preview for viewing report output.

3.5 Hardware Selection

In this system the minimum requirements for the hardware and operating system are IBM PC or any IBM compatible computer with a minimum of 16MB RAM; a 3.5 Inch diskette drive and a hard disk with at least 1.2 G.B. of memory. A colour SVGA monitor. Printer with 132 column paper width. Window version 98.

CHAPTER NO. 4

DATA BASE DESIGNING

4.1 Design of proposed system

The system has been designed keeping in mind. The objectives which setup during proposing the system. During the designing of this particular system the following four phases were considered:

Input form designing

Code designing

Output designing

File designing

4.2 Input Form designing

Input forms are designed to collect the source data needed for the database. An important characteristic of this system is that the forms present a user friendly interface. Data can be retrieved, displayed and edited after each record entry using the same display.

The following input forms are used to input data:

1. **PERSONAL INFORMATION FORM**

This form is used as input form for personal information about the employee.

2. **EMPLOYEE TYPE FORM**

This form is used as input form for information about types of employees.

3. **PAY INFORMATION FORM**

In this form basic pay of each employee annual increment and number of stages are stored.

4. **ALLOWANCE FORM**

In this form the information of different types of allowances given to the employees are input.

5. **MEDICAL REAMBURSMENT FORM**

Medical bills submitted by the employees are entered in this form.

6. **DEDUCTION FORM**

Different deductions are made and are subtracted form the gross pay. In this form deductions of different types are entered.

7. **BANK RECORD FORM**

In this form necessary information of bank are entered.

8. **INCOME TAX FORM**

Deduction of income tax is entered in this form.

9. **GP FUND ADVANCE**

Information about GP Fund advance taken by the employees and deductions made are entered in this form.

10. **MOTORCYCLE ADVANCE FORM**

Deductions and Amount of motor cycle advance taken by the employees are present in this form.

11. **CAR ADVANCE FORM**

Information about car advance is entered in this form.

12. **EMPLOYEE PAY FORM**

In this form basic pay, Allowances and deductions are entered for Gross pay and Net pay.

13. **CHEQUE RECORD FORM**

In this form information about cheque books and cheques used is entered.

4.3 Code Designing

A code can be defined as an abbreviation of the actual data which occupies very little space. When data is too large to be handled and to avoid entering incorrect information codes are used to replace actual data. It can be combination of digits, codes. When accessing information is displayed on the output devices.

Codes have been used in this system for various fields such as allowance code, deduction codes, advance codes and bran codes etc. These are all numeric values.

4.4 Output Designing

For any system to be successfully implemented, it is necessary that its output should be able to reflect all aspects and useful features of the system. Thus outputs are designed keeping in view the following aspects.

Purpose of the output

Provide exact and accurate information.

Easy to understand

In case of payroll the developed system is capable of generating the following reports.

Pay slip

Bank transaction reports

Advance Balance Reports

Yearly consolidated reports of payment to employee.

The employee gets only the payslip out of these reports. The system provides the facility to get the retrieved information either on screen or printer.

CHAPTER NO. 5

SOFTWARE DEVELOPMENT

5.1 Introduction

Having designing the system, the next step is its development the involves the realization of the actual system. In development phase system is built to meet the proposed and designed specification. This development phase focuses on how this realization is done. During development, software developer needs to describe how.

Data structures and architectures are to be designed.

Procedural details are to be implemented the design will be translated into programming language and testing will be performed. The system developed activities include preparation of plan to make the system operational. During the implementation phase working personnel are trained and preparation is made for changing over from a project environment to an operational environment.

5.2 Development phase

The methods applied during the S/W development phase vary according to the software paradigm applied. However, the most important steps are.

Selecting the development approach. Implementing the data base design. Choosing the appropriate software development tool.

Developing application to store and retrieve information from the data base.

Testing of developed application with sample data for debugging.

Producing only desired output in a desired way.

5.3 Development Approach

There are several development approaches used in developing systems now-a-days. Some of the very famous are.

5.3.1 Top Down Approach

It is based on the principle of coding the high level modules first and leaving the lower level modules to be filled in later. Lower module is only a shell with an entry and exit. In higher module references are made to lower modules as ¥¥

they are coded and available but in fact result will be an empty action.

ADVANTAGES

It tests the most important modules first. It allows the user to see preliminary version of the system.

Once the higher modules are coded and tested a few level modules can be easily coded and results produced.

Top down coding allow problems to be handled more easily i.e. if the system is going to be late then at least there is something to show the user.

5.3.2 Bottom up Approach

It begins with some complete lower level modules while the higher level modules are merely skeletons that call the lower to modules.

ADVANTAGES

Lower level modules are critical in some sense, perhaps involving calculations and it may be important to get these working soon. Lower level modules may be assigned earlier in order to keep programmers busy.

5.3.3 Inside out Approach

Here the abstractions are focused on some central set of concepts that are most evident making it a special kind of bottom up approach. Muddling from inside then spreads outwards by considering new concepts in the vicinity of the existing ones.

5.3.4 Mixed Approach

Instead of following any particular approach, the requirements are portioned while using a top down approach and part of the scheme is designed for each partition using a bottom up approach various scheme parts are then combined out of all these our development approach is the bottom up approach due to the following reasons.

Each and every program can be tested separately.

Modularity can be achieved.

Interface design.

Database design.

Linkage to a main menu can be done very easily after the development. Satisfaction of the working of each separate module.

5.4 Software Selection

Software selection was a major issue faced during the development of this system. Before user's satisfaction, developer's satisfaction is must in the context of the working environment so that he should be able to work efficiently, enjoying all the facilities offered by his selected environment for his quality product.

After a careful observation and analysis of the different environments and software present for database development. It was decided that this development will be done in oracle using windows 98 environment. Developer 2000 form designer used for interface designing and report writing.

Oracle has following advantages provide very strong on-line help.

It supports client/server applications. Uses latest software development technique. It provides maximum oeecrita of data. It can work on more than 75 operating systems.

It uses special file operating technique.

5.5 Designing Interface

A paper prototype is always helpful in developing an ideal user interface, because it is somehow practical and developer can discuss it with the user, so a paper prototype of all the input screens was made and discussed with the user.

This discussion begin with the colour of the input screen and covered each and every object on the screen plus its functionality and proper responsibility etc. It is always difficult to meet all the user's requirement in a way the user likes. Anyhow we been able to get a satisfactory set of screens on the paper before actual user interface in developer 2000.

Developer 2000, provides a very sophisticated interface designer called the form designer.

5.5.1 Developer /2000 forms designer

Developer /2000 form designer select due to the following reasons. Provides an outstanding interface to its user as compared to its contemporary database developed software.

It is easy to use. It containing a list of all possible objects.

BLOCKS

The basic building blocks for forms designers are blocks. A form may contain one or more blocks. Each block may be associated with a base table or may be non base table. Each block is used to perform a specific task. There may be more than one blocks associated with a form.

BASE TABLE

Base table is a data base table on which it is based. A block associated with a base table; contains to fields of the base table.

MASTER DETAIL RELATIONSHIP

Master detail relationship exist between blocks in case presence of more than one blocks in a form. A master detail relationship si created

between blocks of a form when there exist records in the detail block corresponding to each record of master block or there is a primary to foreign key relationship between two fields.

LAYOUT EDITOR

It; is a full screen editor in which one can, quickly move fields around, add boxes and other text or changing the text displayed for a field.

TRIGGERS

Triggers are a set of processing commands. All triggers are written in PL/SQL which is a procedural language integrated with an oracle data base.

Triggers are associated with event points in forms processing. An event is an action which occurs when a form is executed. They can be defined on a field or block or a form level. An example of an event is the operator pressing the key {COMM IT }. When this even occurs its associated trigger, i.e. KEY COMM IT fires executing the commands it contains.

5.6 Form Designing

Forms design let one quickly develop form based ;applications for entering, querying updating, and deleting data. Here, one specifies his application, and the form designer combine the instruction with information in the ORACLE data dictionary (which is a set of tables).

Following form have been developed in the newly developed system.

Personal information form.

Pay information form.

Allowance form

Deduction form

Bank record form

Payment form

Medical Reimbursement form

Cheque book record form

Form name person. Info

Purpose: This form is used to store the information of all the employees of school.

Block name	Master Block	Description	Table involved
Person-Blk		Information about Employee	Personal information

Form Name: Emp. Type

Purpose: This form is used to store the information of employees type

Block Name	Master Block	Description	Table involved
EMP-BLK		Type of employees	EMP-type

Form Name: Allowance

Purpose: This form is used to store the information about allowance given to the employees.

Block Name	Master Block	Description	Table involved
Allow-BLK		Allowance of employees	Allowance

Form Name: Deduction

Purpose: This form is used to store the information about deductions made in the gross pay of employees.

Block Name	Master Block	Description	Table involved
Deduct-BLK		Deductions made in Gross pay	Deduction

Form Name: Bank-Rec.

Purpose: This form is used to store the record of bank.

Block Name	Master Block	Description	Table involved
Bank-BLK		Bank records	Bank recoveries

Form Name: Payment

Purpose: This form is used to record the payment made to the employees.

Block Name	Master Block	Description	Table involved
Pay-BLK		Record of payment	Employee pay

Form Name: Medical Reimbursement

Purpose: To record the medical bills of the employees and payment made to them.

Block Name	Master Block	Description	Table involved
Med-BLK		Medical Bills	M. Reimbursement

Form Name: Employee Discharge

Purpose: This form is used to record the information about the person discharged from the school.

Block Name	Master Block	Description	Table involved
Disch-BLK		Discharged employees	EMP-Discharge

Information

Form Name: Cheque Record

Purpose: This form is designed to record the cheques used for the payment of employees.

Form Name: Income Tax

Purpose: To record the Income Tax deducted from the gross pay of employees.

Block Name	Master Block	Description	Table involved
Income-BLK		Income Tax information	Income Tax

Form Name: HBA

Purpose: This form is used to record information about house building advance taken by employees.

Block Name	Master Block	Description	Table involved
HBA-BLK		information of HBA	HBA

Form Name: GPFA

Purpose: This form is designed to record information about GP fund advance taken by employees.

Block Name	Master Block	Description	Table involved
GPFA-BLK		Information about GP fund advance	GPFA

Form Name: MCA

Purpose: To record information about Motorcycle advance taken by employees.

Block Name	Master Block	Description	Table involved
MCA-BLK		Information about Motorcycle advance	MCA

Form Name: CAR Adv.

Purpose: To record information about car advance taken by employees.

Block Name	Master Block	Description	Table involved
Car-BLK		Information about Car advance	Car advance

5.7 Menu Designer

Every form runs with the following menu.

The default menu: That is built in to every form.

A custom menu: That we define as a separate module and then attach to the form for routine execution

Now menu at all

At run time, an application can have only one module active a time either the default menu or a custom menu. The default menu is part of the form module. Custom ;menu modules however are separate form modules. So when we deliver a single form application that uses a custom menu, you will provide two executable files.

An FMX form module

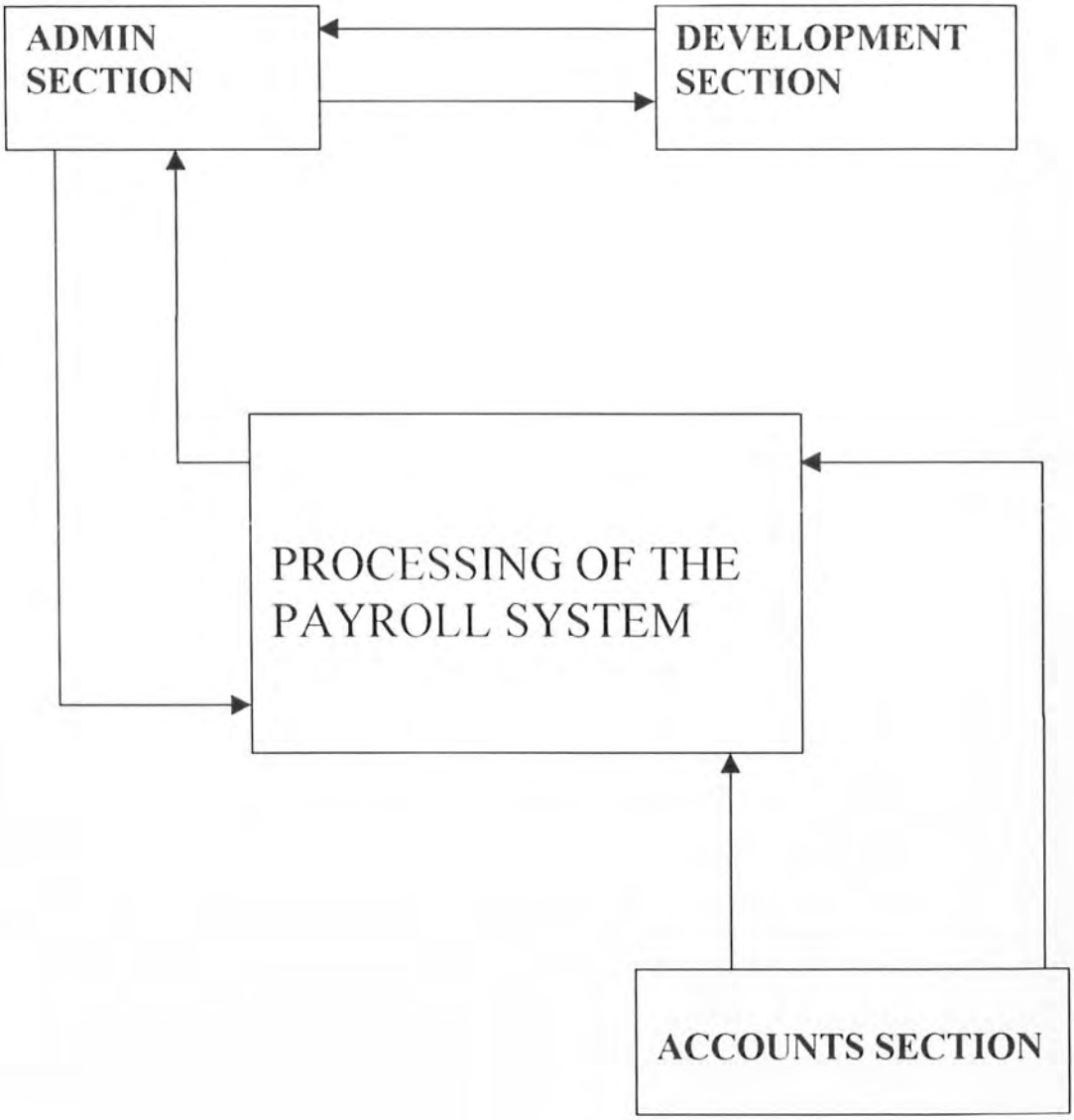
An FMX menu module

In a multiform application, we may need to deliver several form modules and several menu modules. Multiple forms can share the same menu or each form can invoke a different menu using the default menu.

We cannot change the structure of the default menu or edit the menu items it displays. If our application requires unique menu functions, we must create a custom menu module.

CHAPTER NO. 6

CONTEXT DIAGROM



DATA BASE DESIGN

Following different database tables are designed for the proposed system.

TABLE NAME: PERSPONAL _ INFO

KEY: EMP_ NO

DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
EMPLOYEE NUMBER	EMP_NO	NUMBER (6)	NOT NULL
EMPLOYEE NAME	EMP_NAME	CHAR (20)	
FATHER NAME	F_NAME	CHAR (20)	
DATE OF BIRTH	D_O_B	DATA	
QUALIFICATION	QUALI	CHAR (20)	
DOMICILE	DOMICILE	CHAR (25)	
ADDRESS	ADDR	VARCHAR (100)	
DATE OF JOINING	D_O_J	DATE	
DATE OF RETIREMENT	D_O_R	DATE	
NATIONAL IDENTITY CARD	NIC	VARCHAR (20)	
CATEGORY	CATEGORY	NUMBER (1)	
GRADE	GRADE	NUMBER (2)	NOT NULL
DESIGNATION CODE	D_CODE	NUMBER (2)	NOT NULL

TABLE NAME: EMP_ TYPE

KEY : GRADE

DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
GRADE	GRADE	NUMBER (2)	NOT NULL
START DAY	ST_PAY	NUMBER (7)	
BASIC PAY	B_PAY	NUMBER (7)	
INCREMENT	INCR	NUMBER (5)	
STAGES	STAGES	NUMBER (2)	

TABLE NAME : DESIG

KEY: D_CODE

DESCRIPTION	FIELD NAME	DATA TYPE	STATUS
DESIGNATION CODE	D_CODE	NUMBER (2)	NOT NULL
CADER	CADER	CHAR (1)	

TABLE NAME: PAY_INFORMATION

KEY: SNO1

DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
SERIAL NO1	SNO1	NUMBER (2)	NOT NULL
EMPLOYEE NUMBER	EMP_NO	NUMBER (6)	NOT NULL
AMOUNT-PAID	AMT_PAID	NUMBER (7)	
MONTH	MONTH	CHAR (15)	
YEAR	YEAR	NUMBER (5)	

TABLE NAME: ALLOWANCE

KEY: SNO2

DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
EMPLOYEE NUMBER	EMP_NO	NUMBER (3)	NOT NULL
HOUSE RENT	H_RENT	NUMBER (6)	NOT NULL
MEDICAL ALLOWANCE	M_ALLOW	NUMBER (6)	
SCIENCE ALLOWANCE	SC_ALLOW	NUMBER (6)	
DUST ALLOWANCE	DUS_ALLOW	NUMBER (6)	
DEARNESS ALLOWANCE	DR_ALLOW	NUMBER (6)	

TABLE NAME: M_REAMB

KEY : SNO3

DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
SERIAL NO3	SNO3	NUMBER (3)	NOT NULL
EMPLOYEE NUMBER	EMP_NO	NUMBER (6)	NOT NULL
DATE OF CLAIM	D_CLAIM	DATE	
MEDICAL AMOUNT	MED_AMT	NUMBER (6)	
SANCTION DATE	SAN_DATE	DATE	
SANCTION AMOUNT	SAN_AMT	NUMBER (6)	
MONTH	MONTH	CHAR (15)	

TABLE NAME : EMPPAY

KEY : SNO4

DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
SERIAL NO4	SNO4	NUMBER (3)	NOT NULL
EMPLOYEE NUMBER	EMP_NO	NUMBER (6)	NOT NULL
BASIC PAY	B_PAY	NUMBER (6)	
ALLOWANCE	ALLOW	NUMBER (6)	
GROSS PAY	GROS_PAY	NUMBER (6)	
DEDUCTION	DEDUC	NUMBER (6)	
NET-PAY	NET_PAY	NUMBER (6)	
MONTH	MONTH	CHAR (15)	

TABLE NAME : BANKREC

KEY : SNO5

DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
Serial no5	Sno5	NUMBER (3)	NOT NULL
EMPLOYEE NUMBER	EMP_NO	NUMBER (6)	NOT NULL
BANK BRANCH	B_BRANCH	CHAR (20)	
BANK CODE	BANK_CODE	VARCHAR (20)	
ACCOUNT NUMBER	ACC_NO	VARCHAR (20)	
AMOUNT	AMT	VARCHAR (20)	
MONTH	MONTH	CHAR (15)	

TABLE NAME : DEDUC

KEY: SNO

DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
SERIAL NUMBER	S NO	NUMBER (3)	NOT NULL
EMPLOYEE NUMBER	EMP_NO	NUMBER (6)	NOT NULL
INCOME TAX	I_TAX	NUMBER (10)	
GP FUND	GPF	NUMBER(10)	
GPFUND ADVANCE	GPFA	NUMBER (10)	
HOUSE BUILDING ADVANCE	HBA	NUMBER (10)	
MOTORCYCLE ADVANCE	MCA	NUMBER (10)	
CAR ADVANCE	CARA	NUMBER (10)	
INSURANCE	INSUR	NUMBER (10)	
MONTH	MONTH	CHAR (15)	

TABLE NAME : I_TAX

KEY : SNO6

DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
SERIAL NO6	SNO6	NUMBER (3)	NOT NULL
SERIAL NO	SNO	NUMBER (3)	NOT NULL
EMPLOYEE NUMBER	EMP_NO	NUMBER (6)	NOT NULL
BASIC PAY	B_PAY	NUMBER (10)	
TAX RATE	TAX_RATE	NUMBER (10)	
TAX AMOUNT	TAX_AMT	NUMBER (10)	
MONTH	MONTH	CHAR (15)	

TABLE NAME : GPF_AD

KEY : S NO7

DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
SERIAL NUMBER 7	S NO7	NUMBER (3)	NOT NULL
SERIAL NUMBER	SNO	NUMBER (3)	NOT NULL
EMPLOYEE NUMBER	EMP_NO	NUMBER (6)	NOT NULL
GP FUND AMOUNT	GPF_AMT	NUMBER (10)	
INSTALMENT AMOUNT	INST_AMT	NUMBER (10)	
NO OF INSTALMENTS	NO_INST	NUMBER (2)	
INTEREST	INTEREST	NUMBER (10)	
APPLY DATE	APP_DATE	DATE	
SANCTION DATE	SAN_DATE	DATE	
MONTH	MONTH	CHAR (15)	

TABLE NAME: HB_AD

KEY : SNO8

DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
SERIAL NUMBER 8	SNO8	NUMBER (3)	NOT NULL
SERIAL NUMBER	SNO	NUMBER (3)	NOT NULL
EMPLOYEE NUMBER	EMP_NO	NUMBER (6)	NOT NULL
HBA-AMOUNT	HBA_AMT	NUMBER (10)	
APPLY DATE	APP_DATE	DATE	
SANCTION DATE	SAN_DATE	DATE	
SANCTION AMOUNT	SAN_AMT	NUMBER (10)	
NO OF INSTALMENT	NO_INST	NUMBER (2)	
INSTALMENT AMOUNT	INST_AMT	NUMBER (10)	
INTEREST	INTEREST	NUMBER (10)	
MONTH	MONTH	CHAR (15)	

TABLE NAME : MC_AD

KEY : SNO9

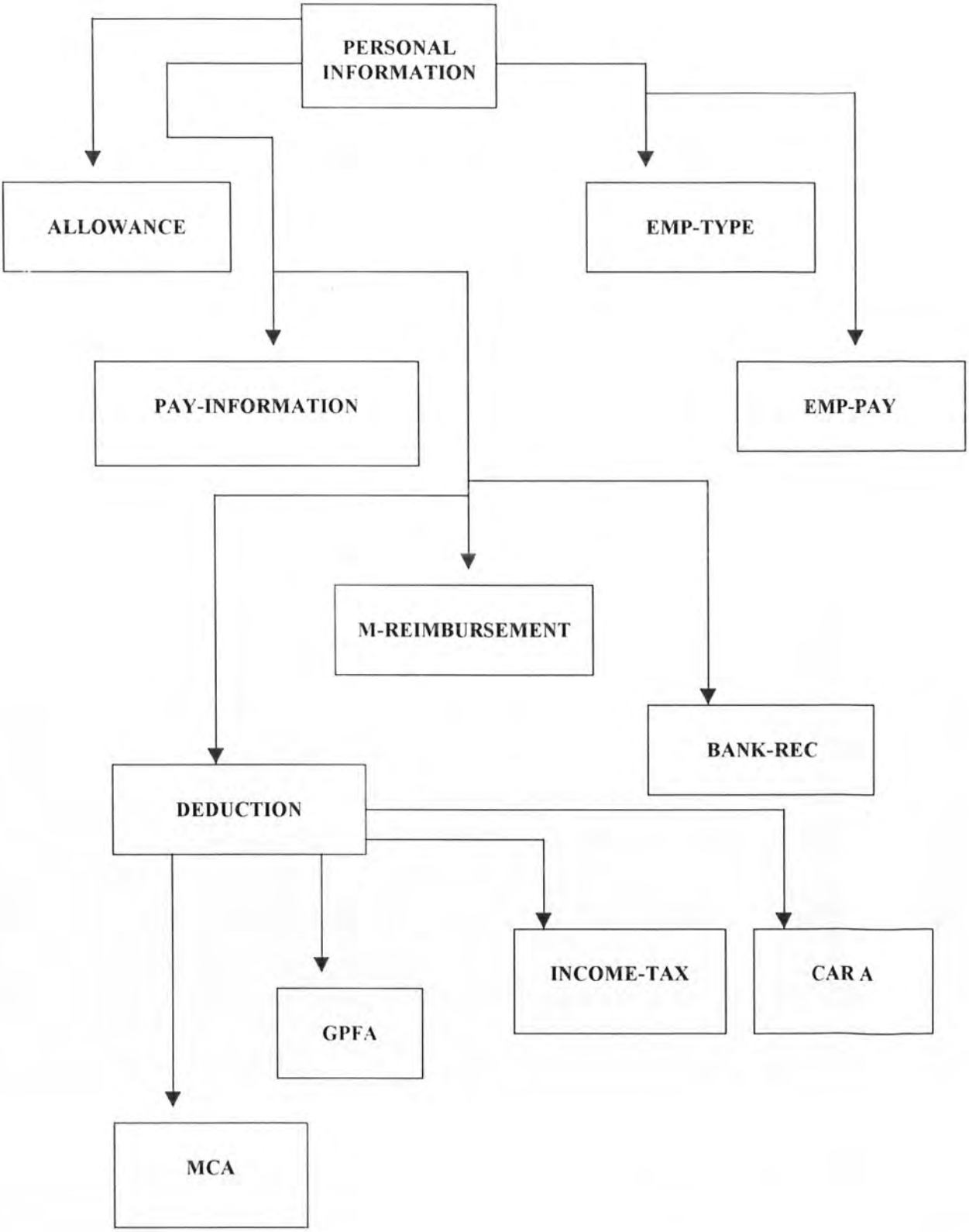
DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
SERIAL NUMBER 9	SNO9	NUMBER (3)	NOT NULL
SERIAL NUMBER	SNO	NUMBER (3)	NOT NULL
EMPLOYEE NUMBER	EMP_NO	NUMBER (6)	NOT NULL
MOTORCYCLE ADVANCE	MCA_AMT	NUMBER (10)	
APPLY DATE	APP_DATE	DATE	
SANCTION DATE	SAN-DATE	DATE	
NO OF INSTALMENT	NO_INST	NUMBER (2)	
INSTALMENT AMOUNT	INST_AMT	NUMBER (10)	
INTEREST	INTEREST	NUMBER (10)	
MONTH	MONTH	CHAR (15)	

TABLE NAME : CHEK_BOOK

KEY : SNO11

DESCRIPTION	FIELDNAME	DATA TYPE	STATUS
SERIAL NUMBER 11	SNO11	NUMBER (3)	NOT NULL
EMPLOYEE NUMBER	EMP_NO	NUMBER (6)	NOT NULL
ISSUE DATE	ISS_DATE	DATE	
NO OF CHEQUES	NO_CHEQ	NUMBER (3)	
CHEQUE USED	CHEQ_USED	NUMBER (3)	
CHEQUE-REMAIN	CHEQ_REM	NUMBER (3)	
MONTH	MONTH	CHAR (15)	

ERD OF THE SYSTEM

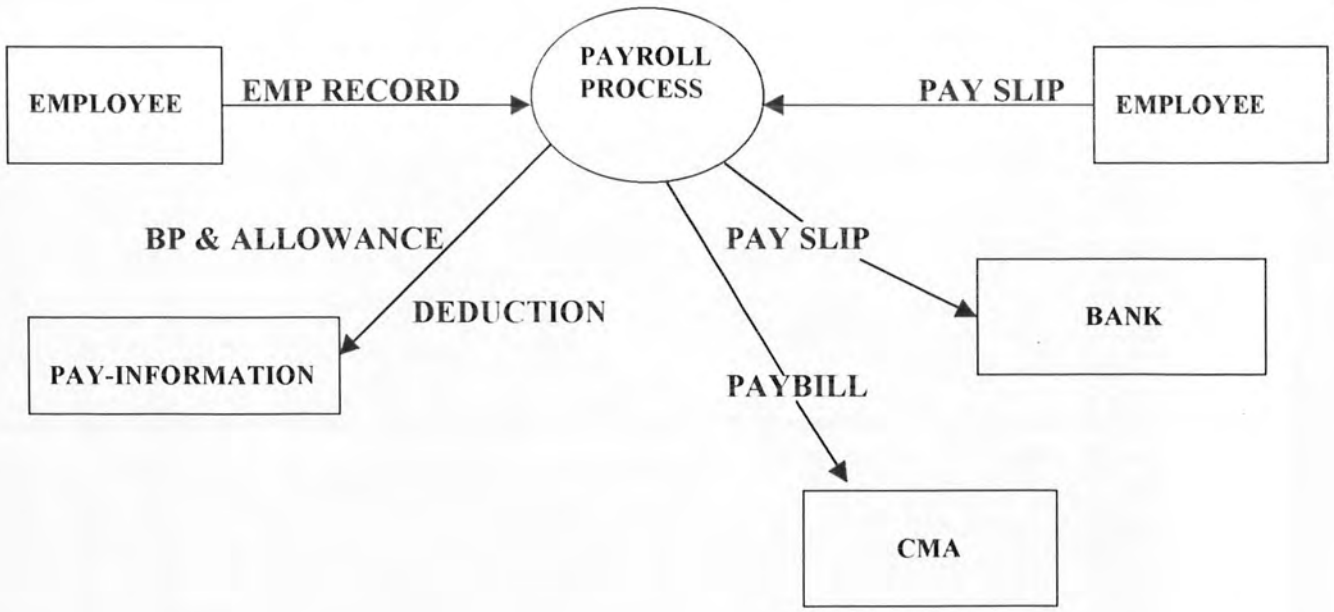


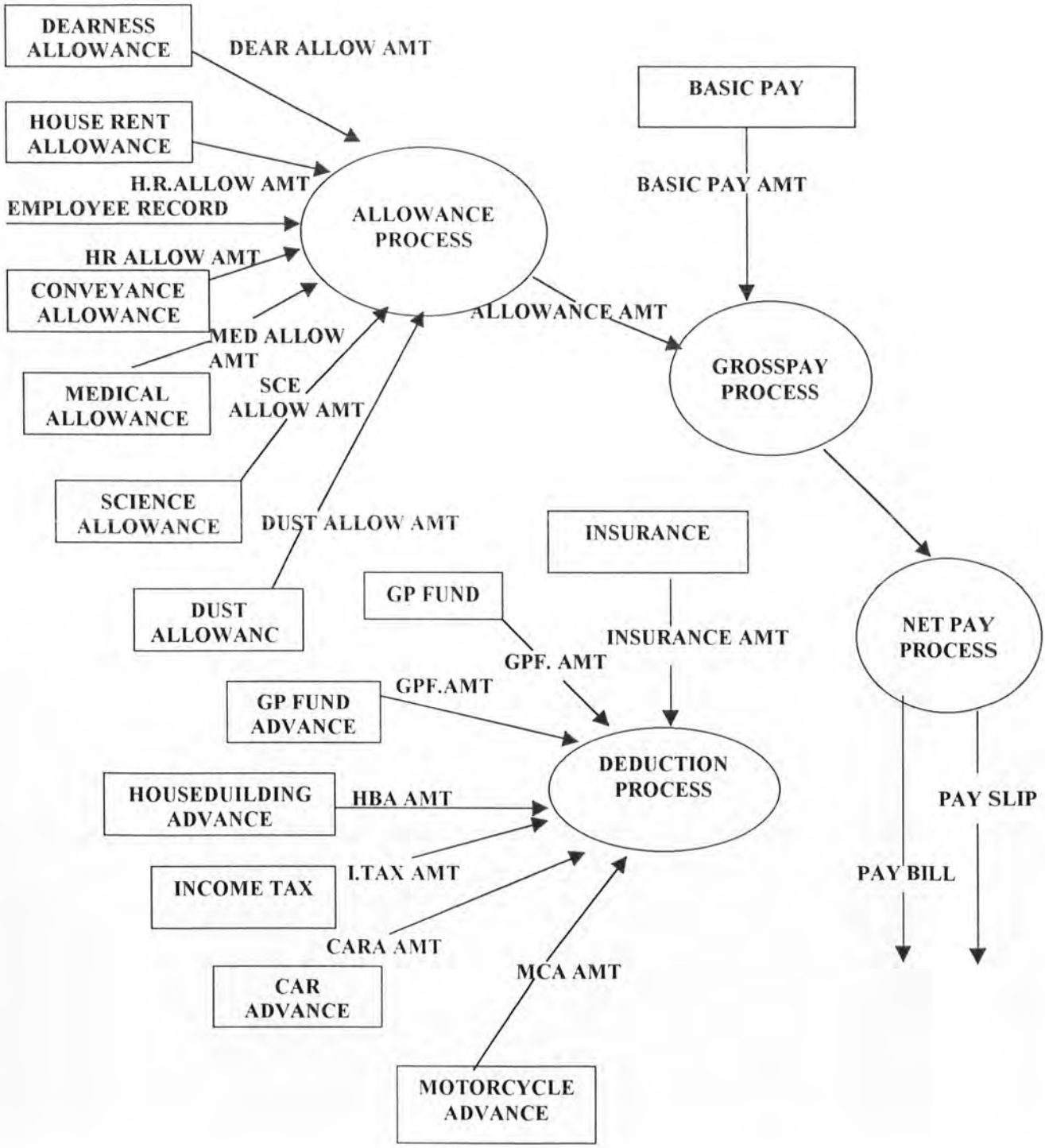
SYSTEM DIAGRAMS

DFD (DATA FLOW DIAGRAM)

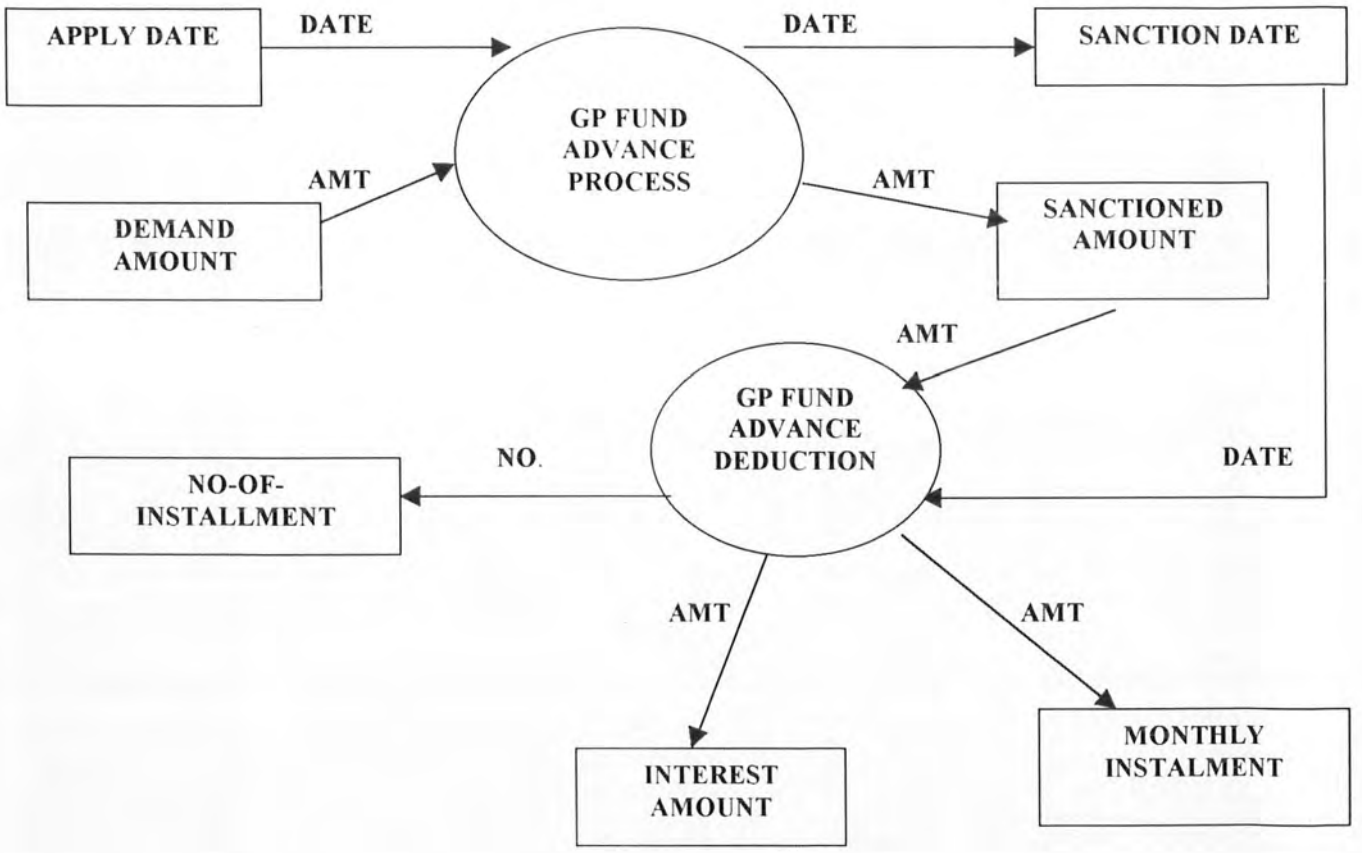
Follow DFD shows the flow of data of the system

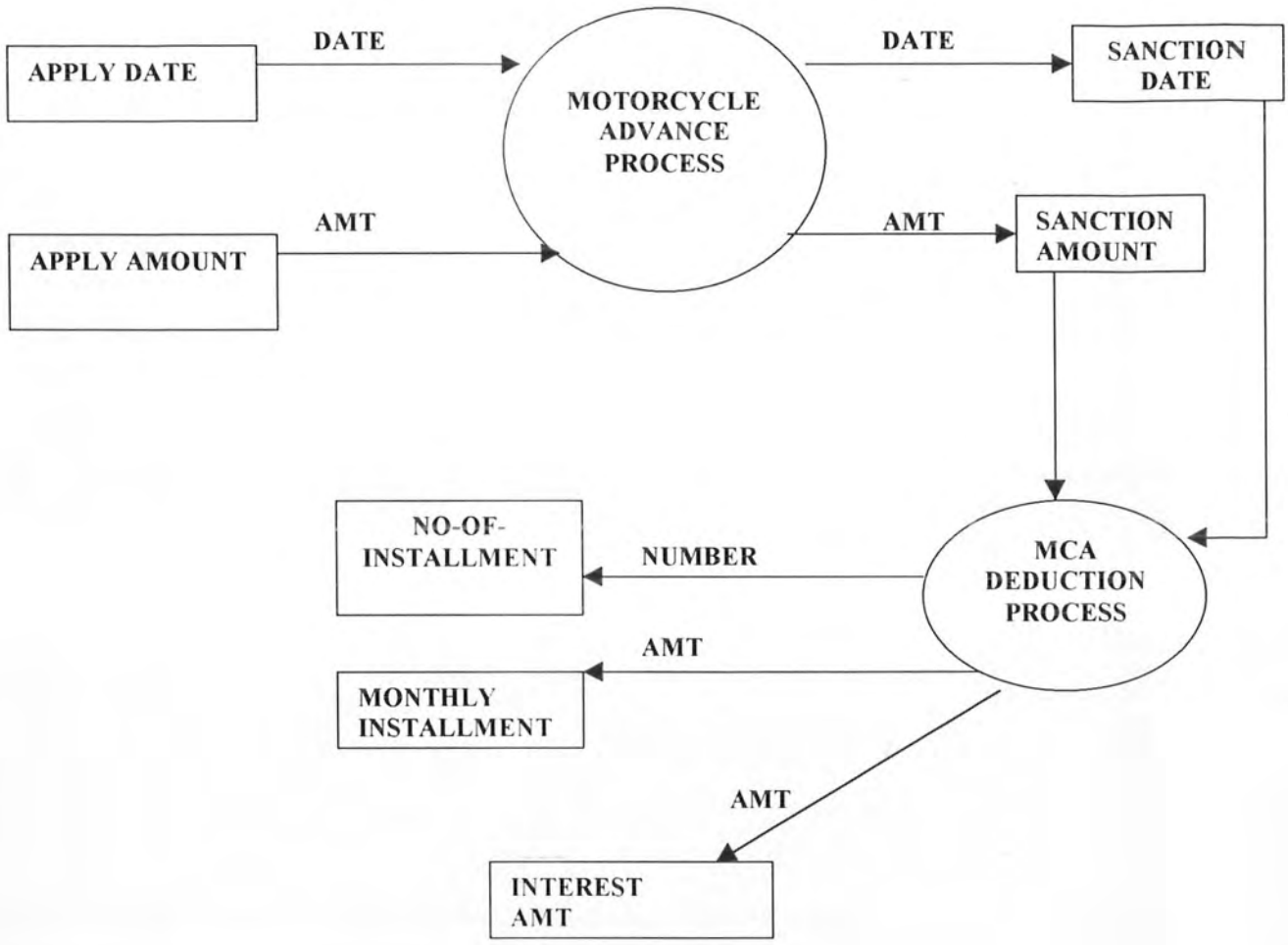
Level-O

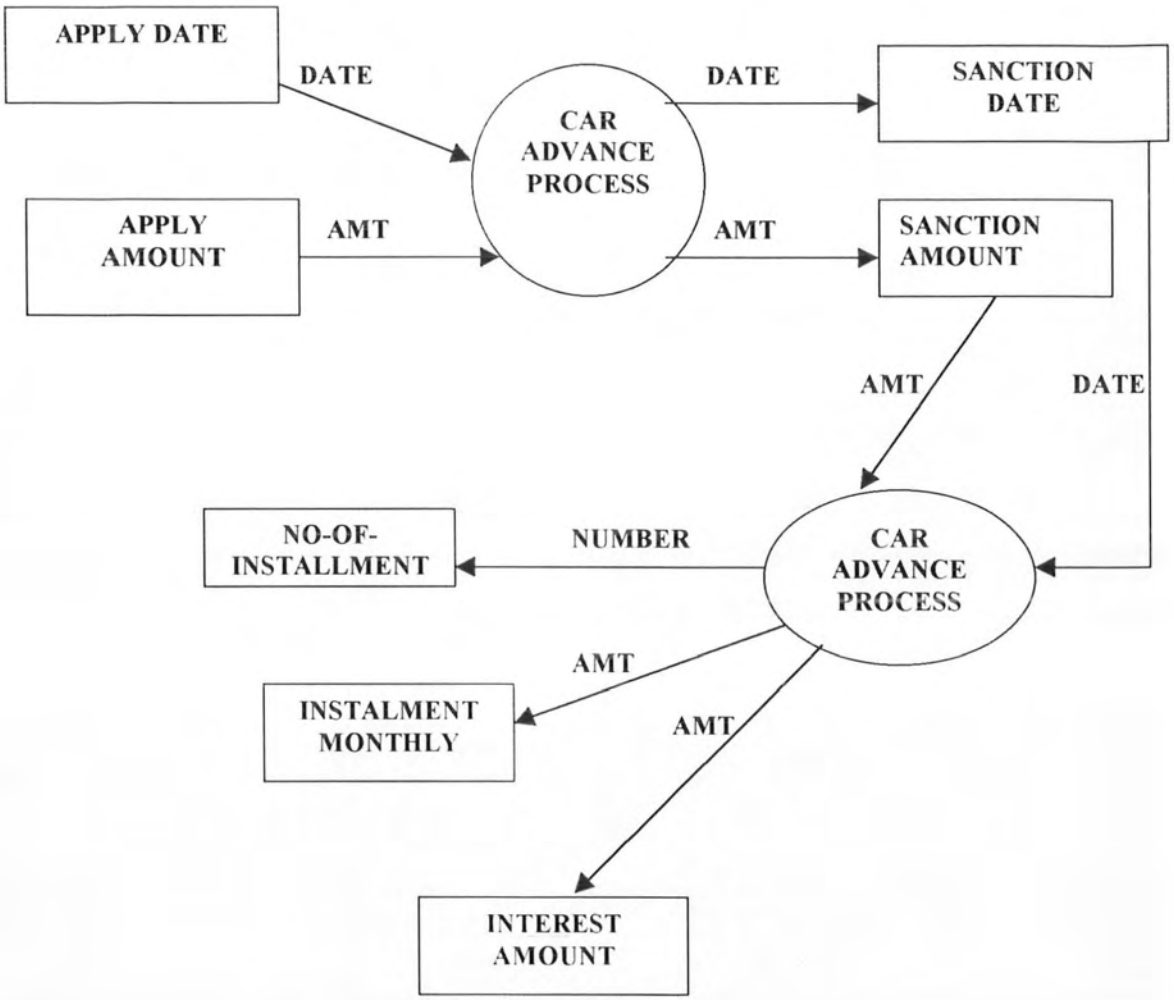



DEARNESS ALLOWANCE
DEAR ALLOW AMT
HOUSE RENT ALLOWANCE
H.R.ALLOW AMT
EMPLOYEE RECORD
HR ALLOW AMT
CONVEYANCE ALLOWANCE
MED ALLOW AMT
MEDICAL ALLOWANCE
SCE ALLOW AMT
SCIENCE ALLOWANCE
DUST ALLOW AMT
DUST ALLOWANC
ALLOWANCE PROCESS
BASIC PAY
BASIC PAY AMT
ALLOWANCE AMT
GROSSPAY PROCESS
INSURANCE
GP FUND
INSURANCE AMT
GPF. AMT
GPF.AMT
GP FUND ADVANCE
HOUSEDUILDING ADVANCE
HBA AMT
INCOME TAX
I.TAX AMT
CARA AMT
CAR ADVANCE
MCA AMT
MOTORCYCLE ADVANCE
DEDUCTION PROCESS
NET PAY PROCESS
PAY SLIP
PAY BILL

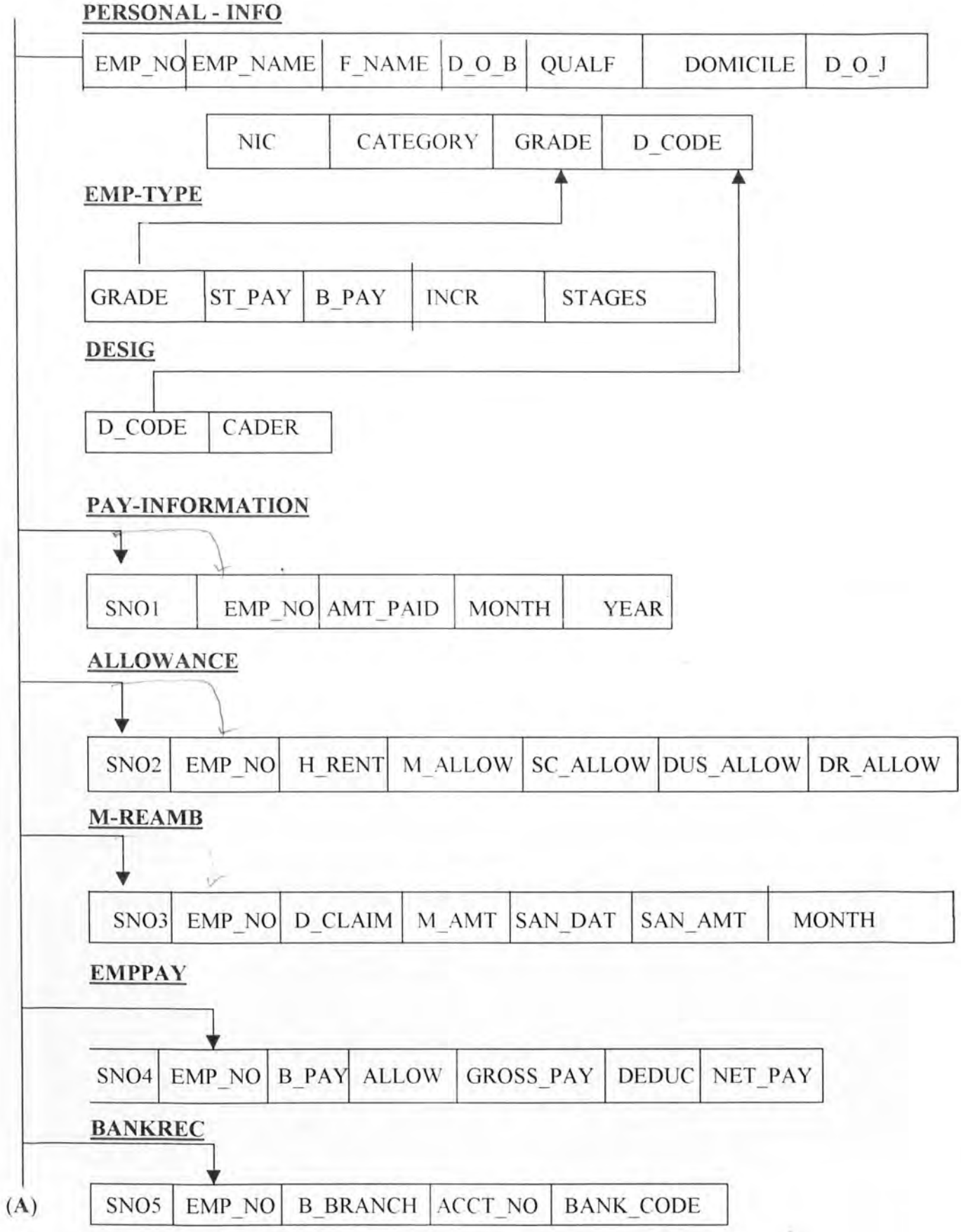
Level-2


APPLY DATE
DATE
GP FUND ADVANCE PROCESS
DATE
SANCTION DATE
AMT
DEMAND AMOUNT
AMT
SANCTIONED AMOUNT
AMT
GP FUND ADVANCE DEDUCTION
NO.
NO-OF-INSTALLMENT
DATE
AMT
INTEREST AMOUNT
AMT
MONTHLY INSTALMENT


APPLY DATE
DATE
MOTORCYCLE ADVANCE PROCESS
DATE
SANCTION DATE
APPLY AMOUNT
AMT
AMT
SANCTION AMOUNT
NO-OF-INSTALLMENT
NUMBER
MCA DEDUCTION PROCESS
AMT
MONTHLY INSTALLMENT
AMT
INTEREST AMT


APPLY DATE
DATE
CAR ADVANCE PROCESS
DATE
SANCTION DATE
APPLY AMOUNT
AMT
AMT
SANCTION AMOUNT
AMT
DATE
NO-OF-INSTALLMENT
NUMBER
CAR ADVANCE PROCESS
AMT
INSTALMENT MONTHLY
AMT
INTEREST AMOUNT

BAECHMANN DIAGRAM



(A)

DEDUC

SNO	EMP_NO	I_TAX	GPF	GPFA	HBA	MCA	CARA	INSUR	MONTH

INCOME TAX

SNO6	SNO	B-PAY	EMP_NO	TAX-RATE	TAX-AMT	AMOUNT

GPF_AD

SNO7	SNO	EMP_NO	GPF_AMT	INST_AMT	NO_INST	INTEREST	D_APP	SAN_DA

MONTH	SAN_AMT

HB_AD

SNO8	SNO	EMP_NO	D_APP	HBA_AMT	SAN_DATE	SAN_AMT	INST_AMT

NO_INST	INTEREST	MONTH

MC_AD

SNO9	SNO	EMP_NO	D_APP	MCA_AMT	SAN_DATE	SAN_AMT	INST_AMT

NO_INST	INTEREST	MONTH

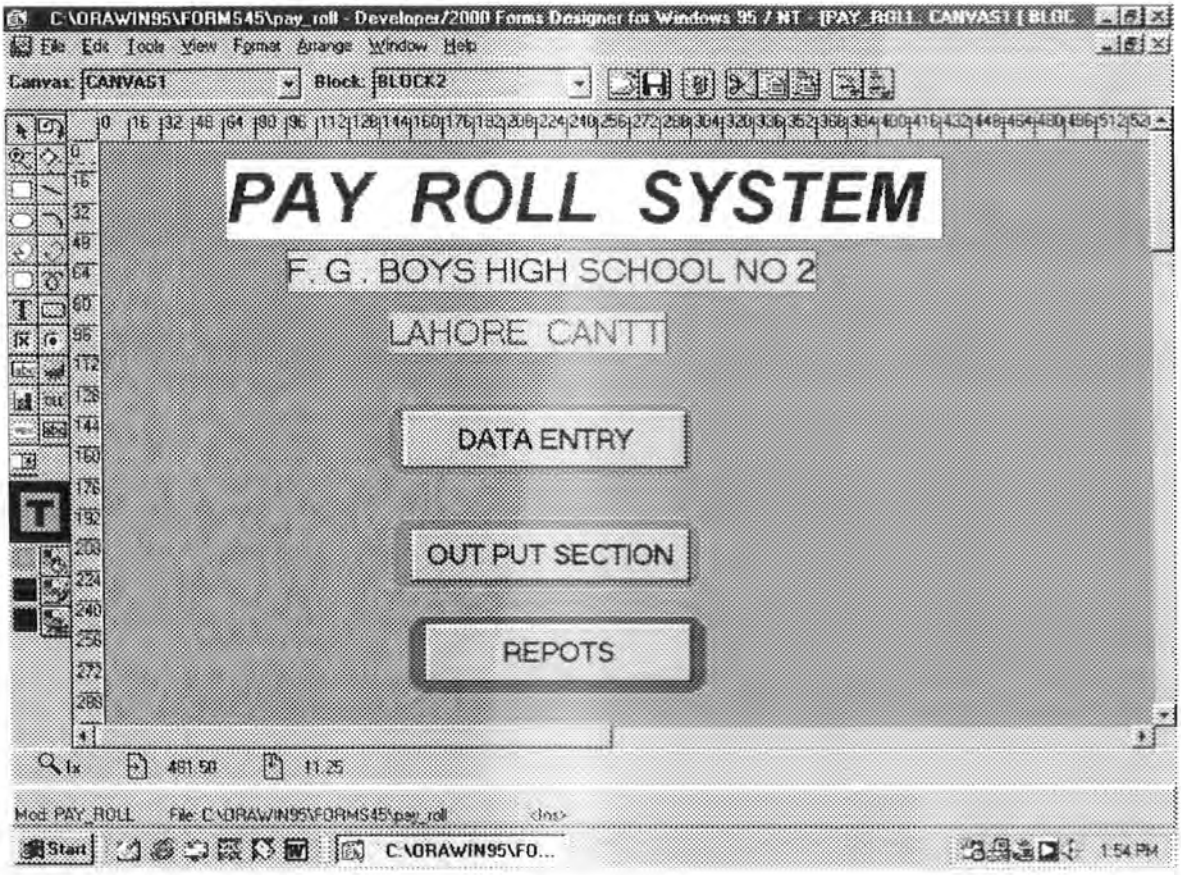
CAR_AD

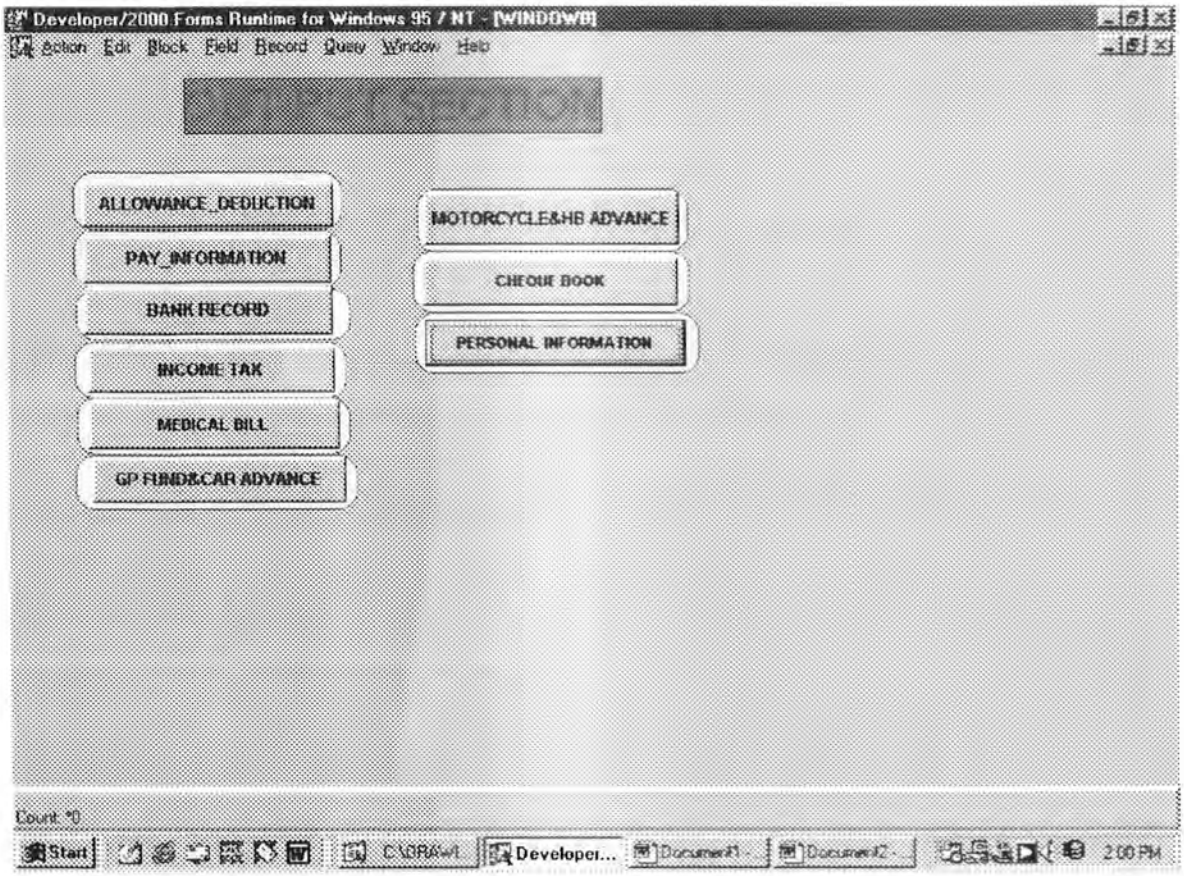
SNO10	SNO	EMP_NO	D_APP	CARA_AMT	SAN_DATE	SAN_AMT	INST_AMT

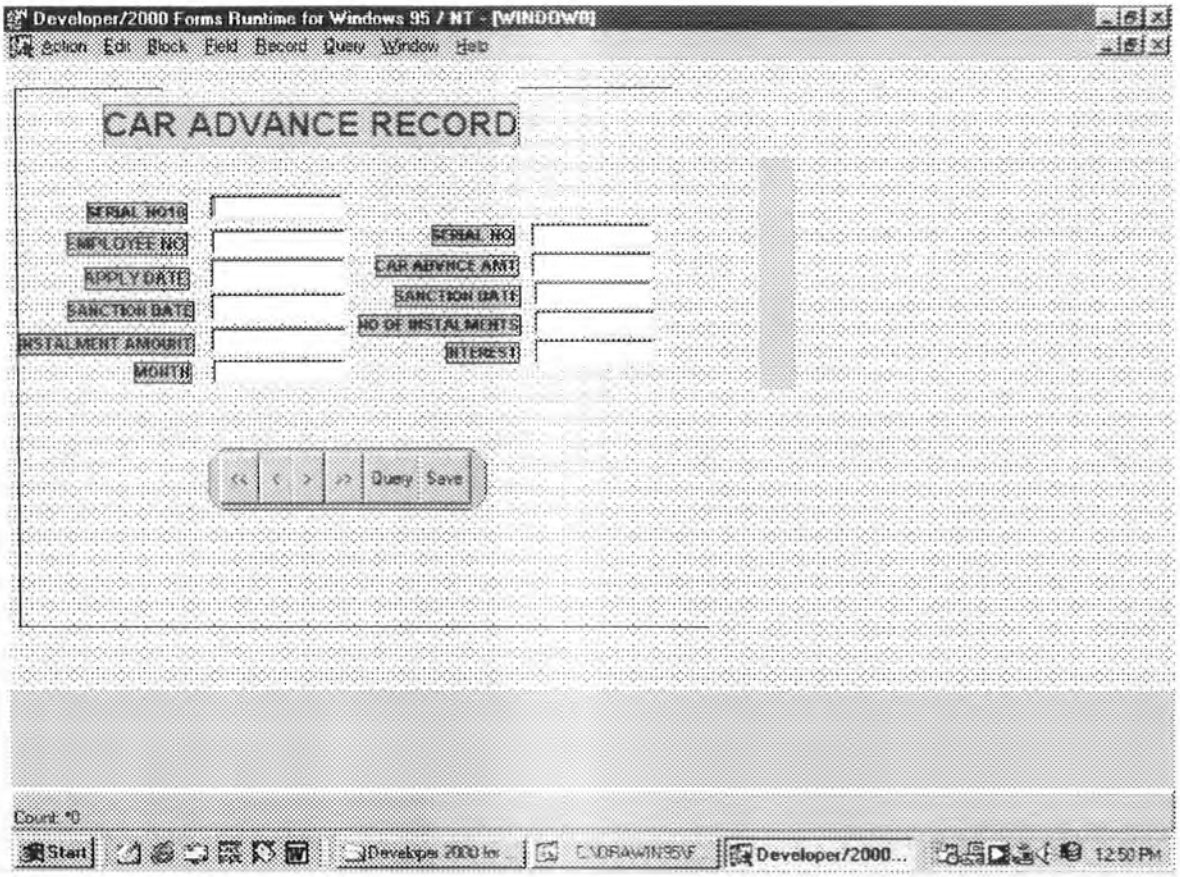
NO_INST	INTEREST	MONTH

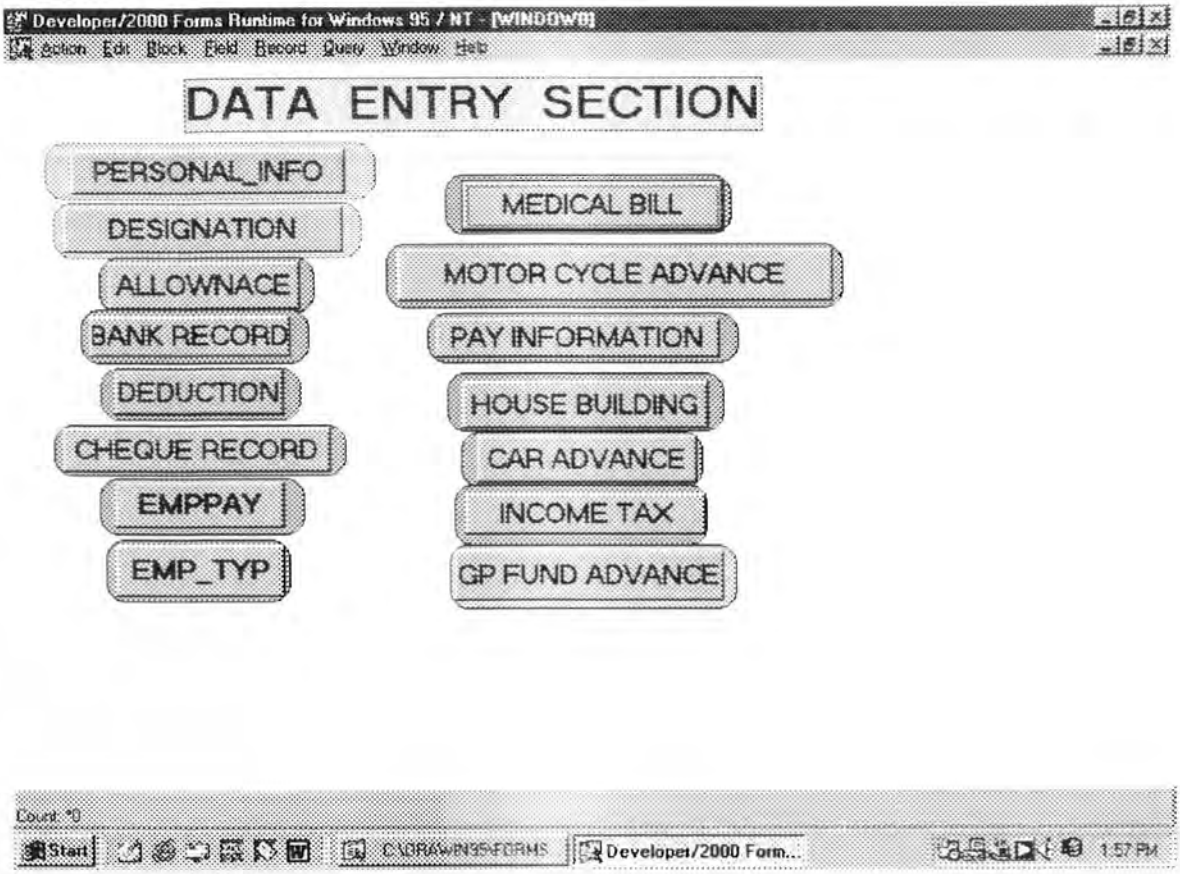
CHEK_BOOK

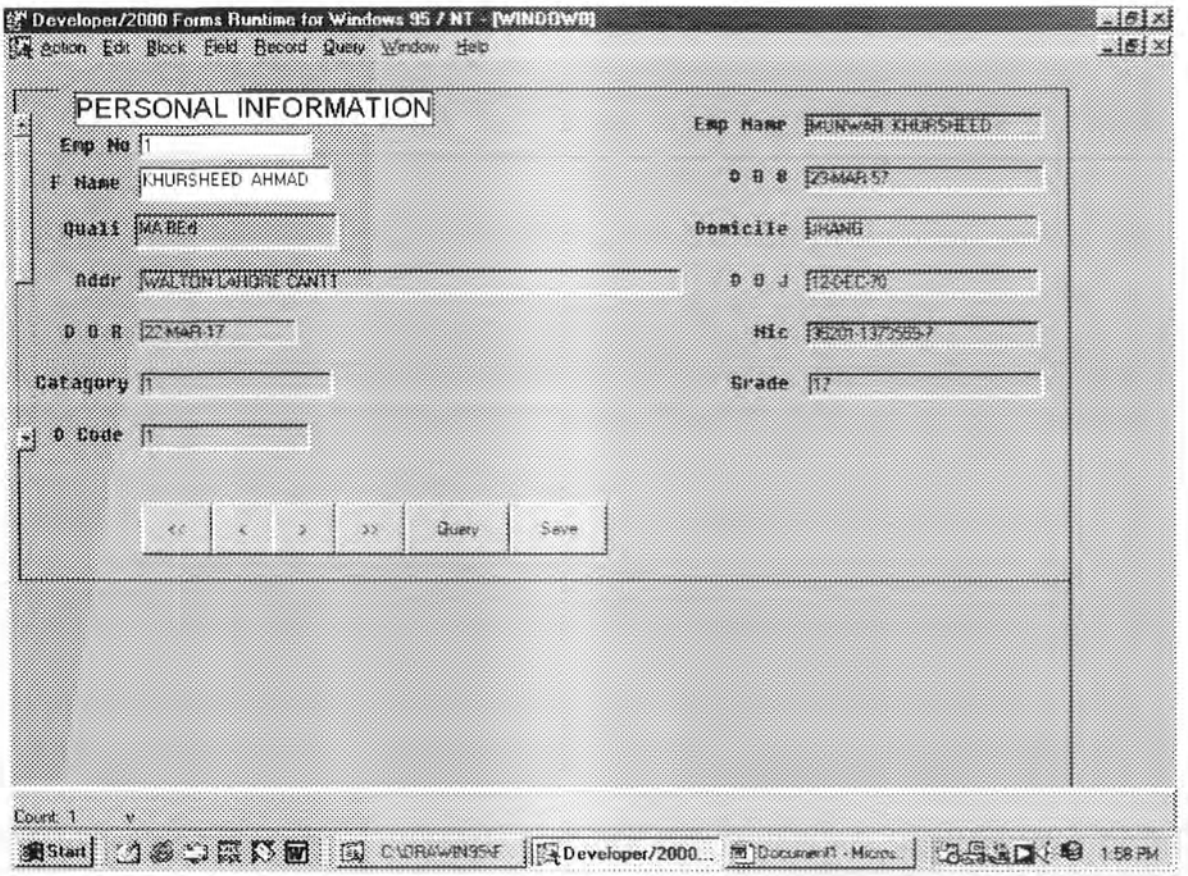
SNO11	ISS_DATE	NO_CHEQ	CHEQ_USED	CHEQ_REM	MONTH

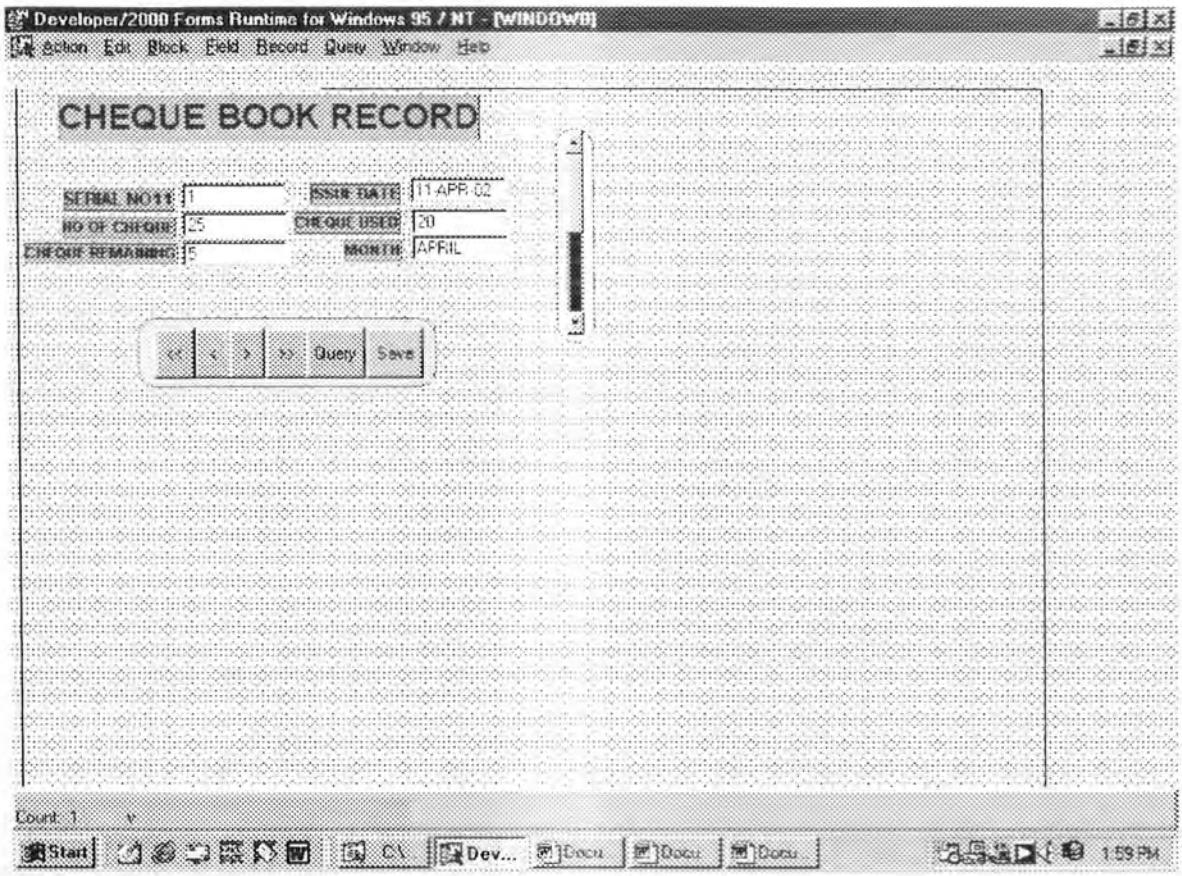

C:\ORAWIN95\FORMS45\pay_roll - Developer/2000 Forms Designer for Windows 95 / NT - [PAY_ROLL: CANVAS1 [BLOC
File Edit Tools View Format Arrange Window Help
Canvas: CANVAS1
Block: BLOCK2
PAY ROLL SYSTEM
F. G . BOYS HIGH SCHOOL NO 2
LAHORE CANTT
DATA ENTRY
OUT PUT SECTION
REPOTS
1x
481 50
11 25
Mod: PAY_ROLL
File: C:\ORAWIN95\FORMS45\pay_roll
<ins>
Start
C:\ORAWIN95\FO...
1:54 PM

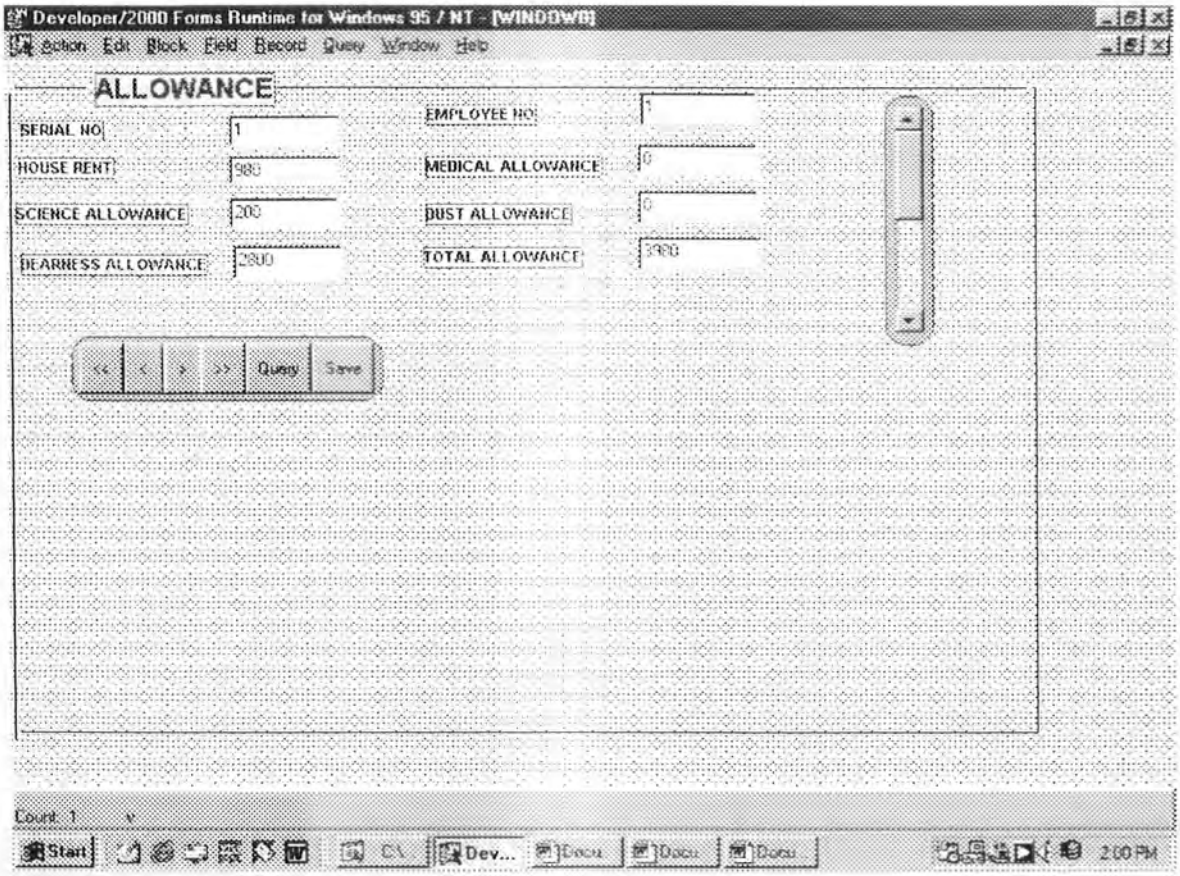

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW8]
Action Edit Block Field Record Query Window Help
ALLOWANCE_DEDUCTION
PAY_INFORMATION
BANK RECORD
INCOME TAX
MEDICAL BILL
GP FUND&CAR ADVANCE
MOTORCYCLE&HB ADVANCE
CHEQUE BOOK
PERSONAL INFORMATION
Count *0
Start
C:\ORAWI
Developer...
2:00 PM

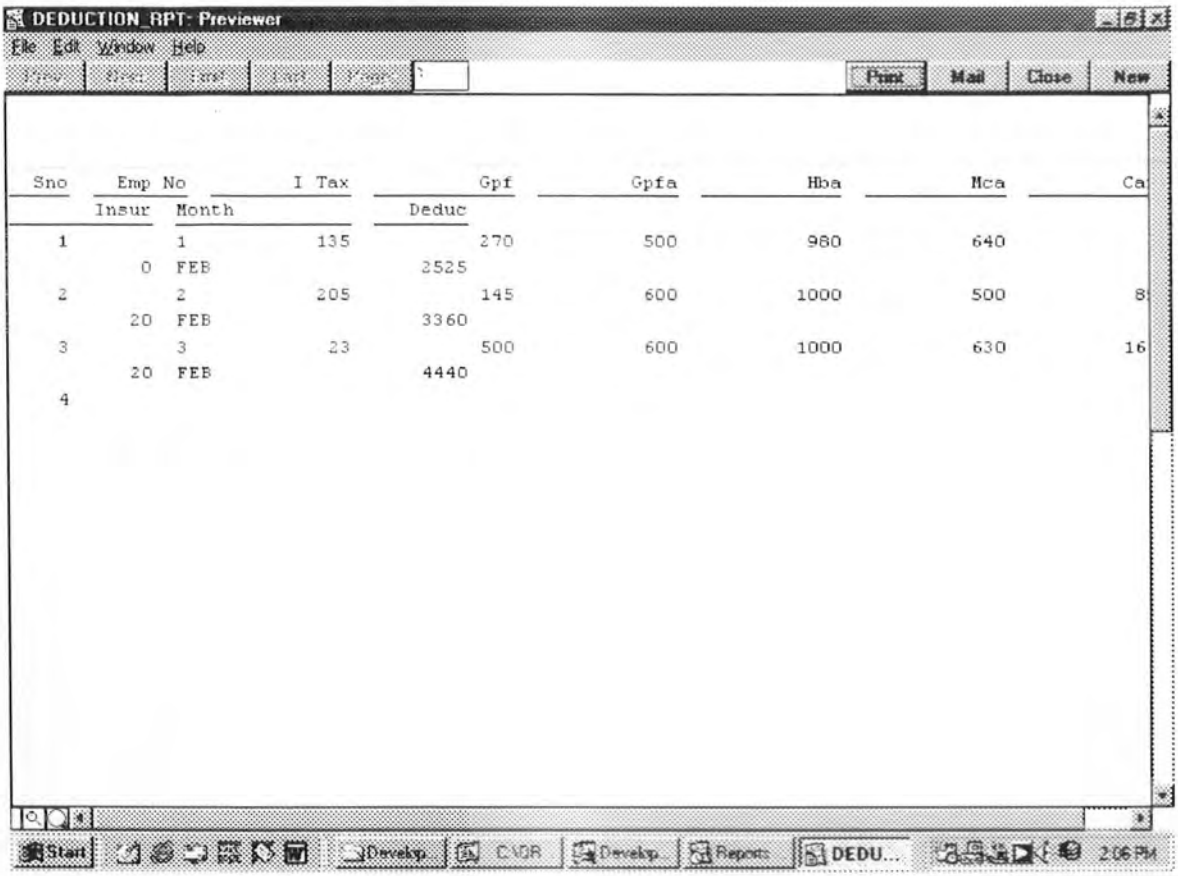

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW0]
Action Edit Block Field Record Query Window Help
CAR ADVANCE RECORD
SERIAL NO1S
EMPLOYEE NO
APPLY DATE
SANCTION DATE
INSTALMENT AMOUNT
MONTH
SERIAL NO
CAR ADVANCE AMT
SANCTION DATE
NO OF INSTALMENTS
INTEREST
<< < > >> Query Save
Count: *0
Start
Developer/2000...
12:50 PM

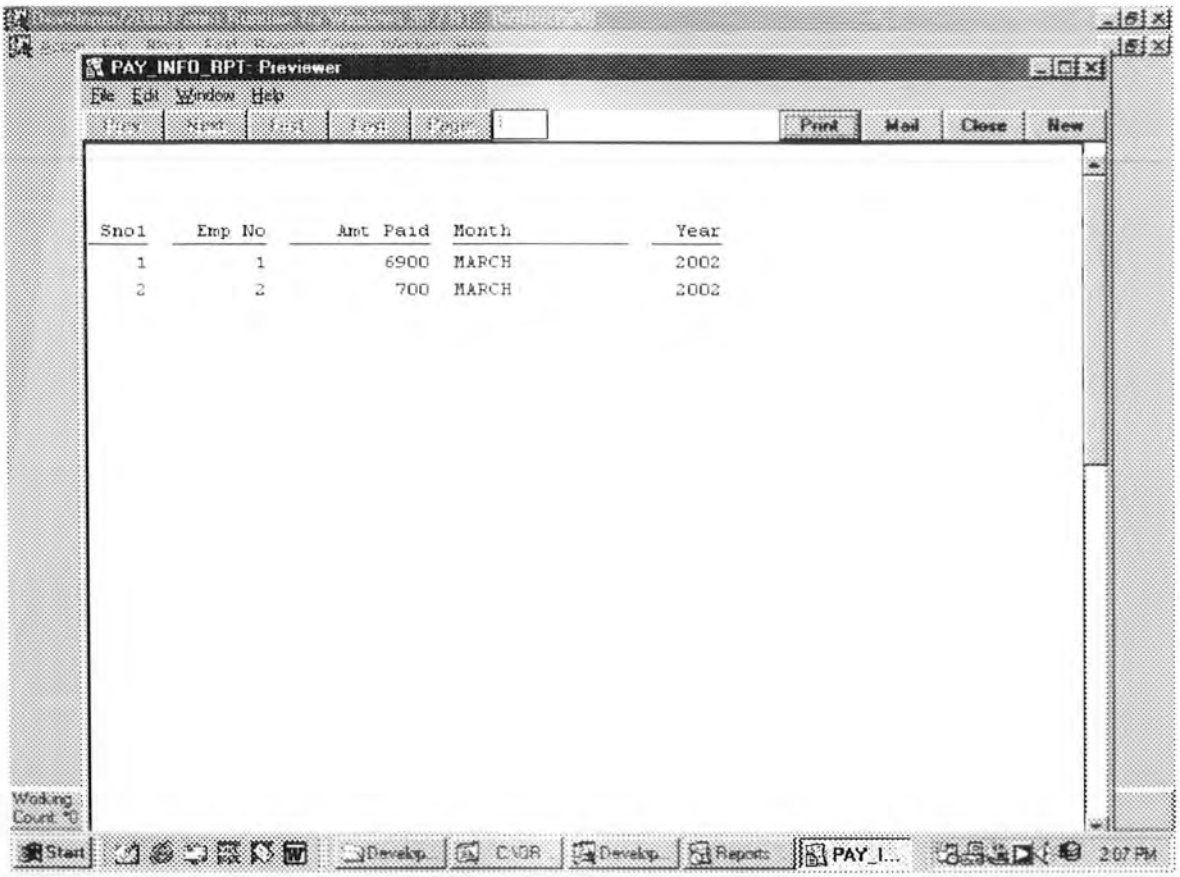

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW0]
Action Edit Block Field Record Query Window Help
DATA ENTRY SECTION
PERSONAL_INFO
DESIGNATION
ALLOWNACE
BANK RECORD
DEDUCTION
CHEQUE RECORD
EMPPAY
EMP_TYP
MEDICAL BILL
MOTOR CYCLE ADVANCE
PAY INFORMATION
HOUSE BUILDING
CAR ADVANCE
INCOME TAX
GP FUND ADVANCE
Count: *0
Start
C:\DRAWIN95\FORMS
Developer/2000 Form...
1:57 PM

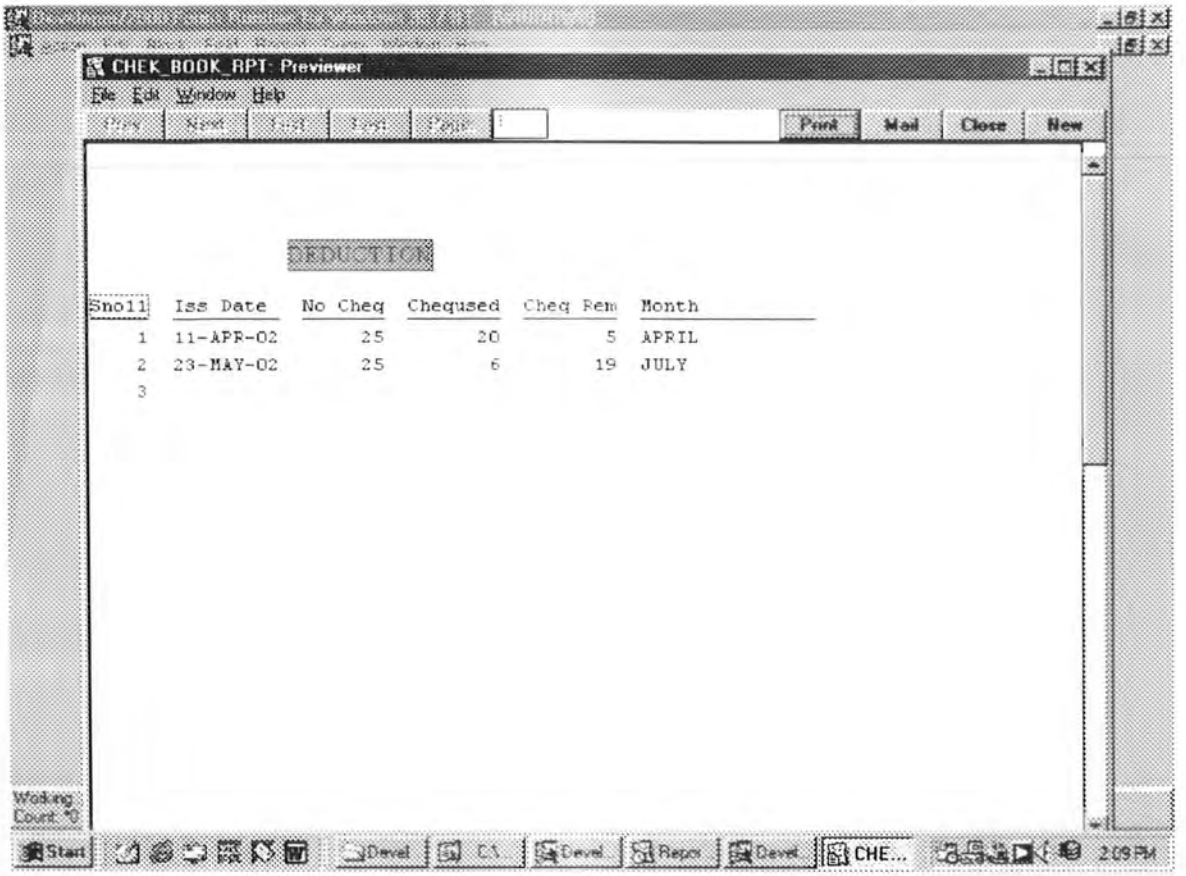

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW8]
Action Edit Block Field Record Query Window Help
PERSONAL INFORMATION
Emp No 1
F Name KHURSHEED AHMAD
Quali MA,BEd
Addr WALTON LAHORE CANTT
D O B 22-MAR-57
Catagory 1
O Code 1
Emp Name MUNAWAR KHURSHEED
D O S 23-MAR-57
Domicile SHANG
D O J 12-DEC-90
Nic 35201-1375585-7
Grade 17
<< < > >> Query Save
Count: 1
Start
C:\ORAWIN95\F
Developer/2000...
Document1 - Micros...
1:58 PM

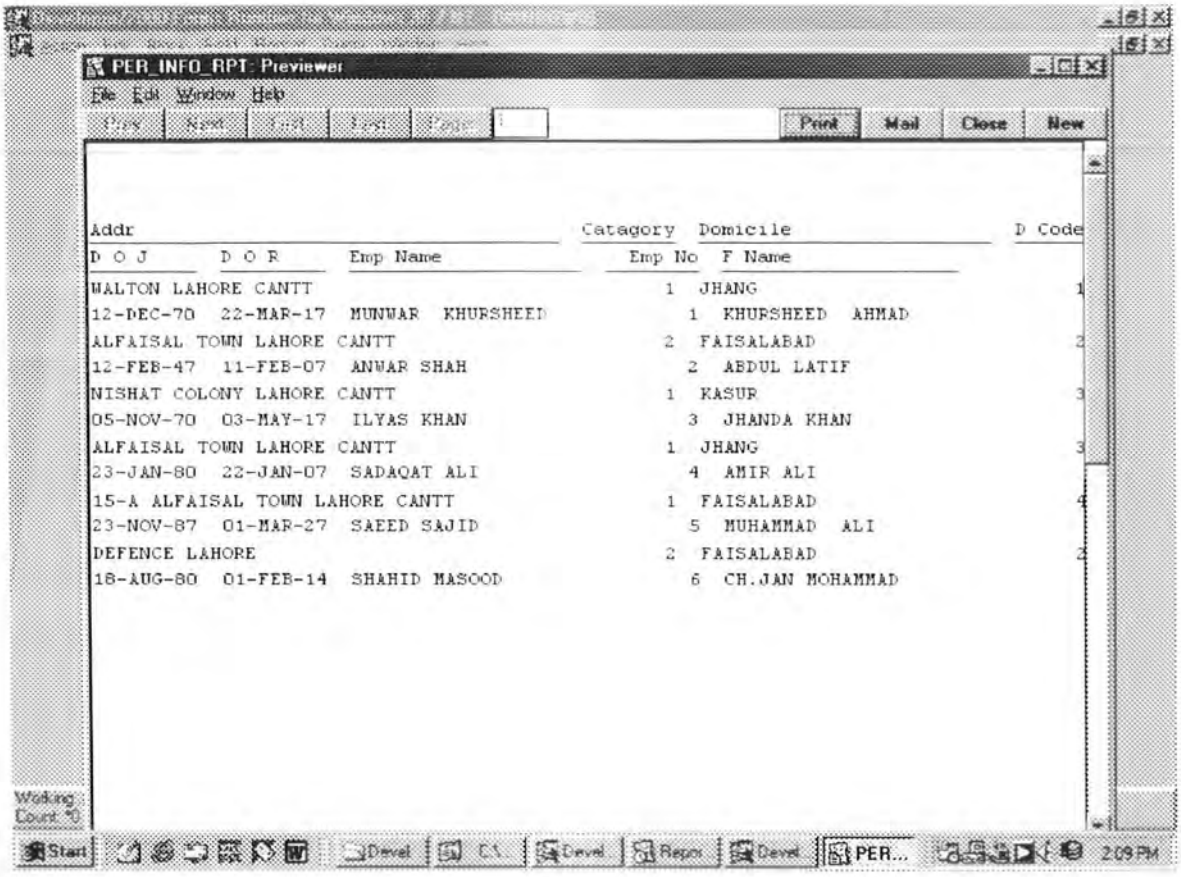

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW0]
Action Edit Block Field Record Query Window Help
CHEQUE BOOK RECORD
SERIAL NO11
1
ISSUE DATE
11-APR-02
NO OF CHEQUE
25
CHEQUE USED
20
CHEQUE REMAINING
5
MONTH
APRIL
<<
<
>
>>
Query
Save
Count: 1
Start
C:\
Dev...
1:59 PM


Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW8]
Action Edit Block Field Record Query Window Help
ALLOWANCE
SERIAL NO
1
HOUSE RENT
980
SCIENCE ALLOWANCE
200
DEARNESS ALLOWANCE
2800
EMPLOYEE NO
1
MEDICAL ALLOWANCE
0
DUST ALLOWANCE
0
TOTAL ALLOWANCE
3980
<<
<
>
>>
Query
Save
Count: 1
Start
2:00 PM


DEDUCTION_RPT- Previewer
File Edit Window Help
Print
Mail
Close
New
Sno Emp No I Tax Gpf Gpfa Hba Mca Ca
Insur Month Deduc
1 1 135 270 500 980 640
0 FEB 2525
2 2 205 145 600 1000 500 8
20 FEB 3360
3 3 23 500 600 1000 630 16
20 FEB 4440
4
Start
Develop
C:\DR
Develop
Reports
DEDU...
2:06 PM


PAY_INFO_RPT: Previewer
File Edit Window Help
Print
Mail
Close
New
Sno1 Emp No Amt Paid Month Year
1 1 6900 MARCH 2002
2 2 700 MARCH 2002
Working
Count: 0
Start
Develop
C:\OR
Develop
Reports
PAY_I...
2:07 PM


CHEK_BOOK_RPT: Previewer
File Edit Window Help
Print
Mail
Close
New
DEDUCTION
Sno11 Iss Date No Cheq Cheqused Cheq Rem Month
1 11-APR-02 25 20 5 APRIL
2 23-MAY-02 25 6 19 JULY
3
Working
Count: *0
Start
2:09 PM


PER_INFO_RPT: Previewer
File Edit Window Help
Print
Mail
Close
New
Addr
Catagory
Domicile
D Code
D O J
D O R
Emp Name
Emp No
F Name
WALTON LAHORE CANTT
1 JHANG
1
12-DEC-70 22-MAR-17 MUNWAR KHURSHEED
1 KHURSHEED AHMAD
ALFAISAL TOWN LAHORE CANTT
2 FAISALABAD
2
12-FEB-47 11-FEB-07 ANWAR SHAH
2 ABDUL LATIF
NISHAT COLONY LAHORE CANTT
1 KASUR
3
05-NOV-70 03-MAY-17 ILYAS KHAN
3 JHANDA KHAN
ALFAISAL TOWN LAHORE CANTT
1 JHANG
3
23-JAN-80 22-JAN-07 SADAQAT ALI
4 AMIR ALI
15-A ALFAISAL TOWN LAHORE CANTT
1 FAISALABAD
4
23-NOV-87 01-MAR-27 SAEED SAJID
5 MUHAMMAD ALI
DEFENCE LAHORE
2 FAISALABAD
2
18-AUG-80 01-FEB-14 SHAHID MASOOD
6 CH.JAN MOHAMMAD
Working
Count: 0
Start
PER...
2:09 PM