

AUTOMOBILE FINANCE MANAGEMENT

PROJECT REPORT
(MINOR PROJECT)

BACHELOR OF TECHNOLOGY
(Information Technology)

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Abstract

The FINANCE MANAGEMENT SYSTEM provides convenience for the Managers in gathering the data. Finance management requires a significant amount of information, which takes time to collect. Once the data is gathered, you must take time to analyze it properly and discuss it with others involved. FINANCE MANAGEMENT PROJECT is used so that one can collect data accurately in minimum time. We have focused on AUTOMOBILES FINANCE MANAGEMENT PROJECT, in this employee can record the details of automobile sold, identity, financials details etc.

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1.1 INTRODUCTION TO PROJECT

This is an attempt to create a project AUTOMOBILE FINANCE MANAGEMENT through which will show all details of the Vehicles sold and the owners details. This project can make the tedious and mistake prone job easier and faster. It can be used both in top-level and bottom-level management for daily operation.

This project also contains the details of the persons who took the loan for buying a vehicle. It also updates the details of EMI's monthly paid by the person.

There are two users to system:

- ADMIN

A Admin can perform various functions:

- Login
- Entering of details
- Search
- Update
- Reset
- Use Utilities

- HEAD

A Head can perform various functions:

- Login
- Entering of details
- Search
- Update
- Reset
- Use Utilities

1.2 PROJECT CATEGORY

AUTOMOBILE FINANCE MANAGEMENT is a computer application which is used to manage the data of Automobile Companies.

1.3 OBJECTIVES

- To handle the manual handling and even the workload of the employees of the company by introducing a change in the existing many software system to a single software implementation.
- To save time and cost of the employees and company by providing information very efficiently and easily.
- To have a proper record of the vehicles coming to toll plaza and having a list and record of that vehicles.
- To provide a system with proper recovery of data, in case lost, through a proper backup provided.
- To provide the head with the basic utilities like file choosers, web browser, account settings and backup within the system for the proficient work management of the company.

1.4 EXISTING SYSTEM

In existing system all the data is recorded in files. In this method time and manual work is required. Maintaining critical information in the files and manuals is full of risk and a tedious process. Some of the negative aspects of the existing system that it is prone to corruption by unauthorized users. Securing of manual system is not fully guaranteed. Inaccuracy can be expected. Data can get easily scratched. Techniques used are more complicated. Proper techniques are not exposed, so the functioning is intricate. To overcome these, the proposed system has been suggested.

1.5 PROPOSED SYSTEM

This application enables the employees to manage the data in computers more effectively and accurately. It saves the time as in this project an employee can search, update, reset or insert data by just clicking a single button. In this project employee need not to devote extra time in finding the records, employee just need to click a single button to access the data.

CHAPTER 2

REQUIREMENT ANALYSIS AND SYSTEM SPECIFICATION

2.1 PROJECT FORMULATION

Prior to stating whether the system we have to develop is feasible or not we believe that we should emphasize on what is implied by the word feasibility. Feasibility is a measure of how beneficial or practical the development of the system will be to the organization. It is a preliminary survey for the system investigation. It aims to provide information to facilitate a later in-depth investigation.

2.1.1 TYPES OF FEASIBILITY STUDY

2.1.1.1 ECONOMIC FEASIBILITY:

The developed system is cost effective in terms of the benefits that would accrue from having the new system in place. This feasibility study gives the top management the economic justification for the new system. The benefits that the system provides are totally cost effective. As it is developed using Java an SQL which are open sources and are freely available. A Netbeans IDE toolkit was required for the successful completion of the project. There could be various types of intangible benefits on account of automation. These could include increased customer satisfaction, improvement in product quality, better decision making, timeliness of information, expediting activities, improved accuracy of operations, better documentation and record keeping, faster retrieval of information, better employee morale.

2.1.1.2 OPERATIONAL FEASIBILITY:

Proposed project is beneficial as it can be turned into information systems that will meet the organizations operating requirements that comprises of Linux, Ubuntu and Windows as Java is Platform independent. So, the system is intended to work efficiently when it is developed and installed. Help has been provided in each and every way possible by the employees and the owner of the company.

- User Friendly:Customer will use the forms for their various transactions. i.e. for adding new routes, viewing the routes details. Also the customer wants the reports to view the various transactions based on the constraints. These forms and reports are generated as user friendly to the client.

- Reliability: The package will pick-up current transactions online regarding the old transactions user will enter them into the system.
- Security: Web server and database server should be protected from hacking, virus, etc.
- Portability: The application will be developed using standard open source software (except Oracle) like java, tomcat web server, internet explorer browser etc. these software will work both on Windows and Linux operating system. Hence portability problems will not arise.

2.1.1.3 TECHNICAL FEASIBILITY:

The technical issue usually raised during the feasibility stage of the investigation includes the following

- Does the necessary technology exist to do what is suggested?
- Do the proposed requirements have the technical capacity to hold the data required to the new system?
- Can the system be upgraded if developed
- Are there technical guarantees of accuracy, reliability, ease of access and data security?

2.2 HARDWARE AND SOFTWARE SPECIFICATION

Table 2.1: Hardware Requirements

CPU	Pentium IV
RAM	600MB
Hard Disk	1GB
Other Peripheral Devices	Printer

Table 2.2: Software Requirements

OS	UBUNTU 14.04
IDE	NetBeans IDE 7.3.1
front End	JAVA
Back End	MySQL Server 5.0

2.3 METHODOLOGY

2.3.1 FUNCTIONAL REQUIREMENT

The functional requirements part discusses the functionalities required from the system. The system is considered to perform a set of high-level functions f_i . The functional view of the system is shown. Each function f_i of the system can be considered as a transformation of a set of input data (ii) to the corresponding set of output data (oi). The user can get some meaningful piece of work done using a high-level function.

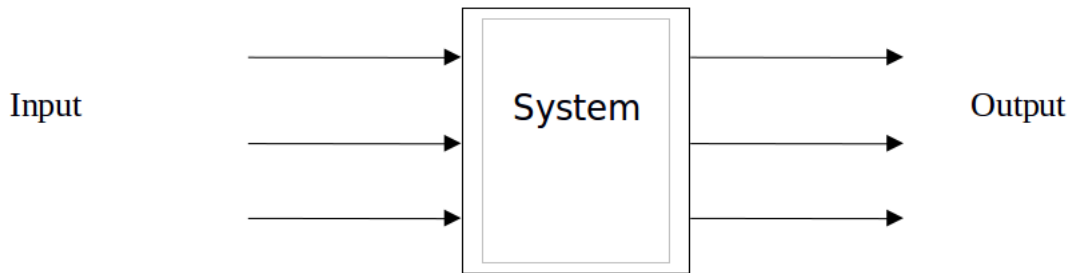


Figure 2.1: Functional Requirement

2.4 Software Development Life Cycle Model

2.4.1 Spiral Model

The spiral model is a risk-driven process model generator for software projects. Based on the unique risk patterns of a given project, the spiral model guides a team to adopt elements of one or more process models, such as incremental, waterfall, or evolutionary prototyping.

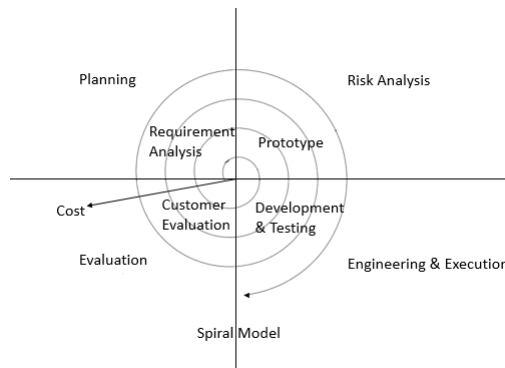


Figure 2.2: Spiral Model

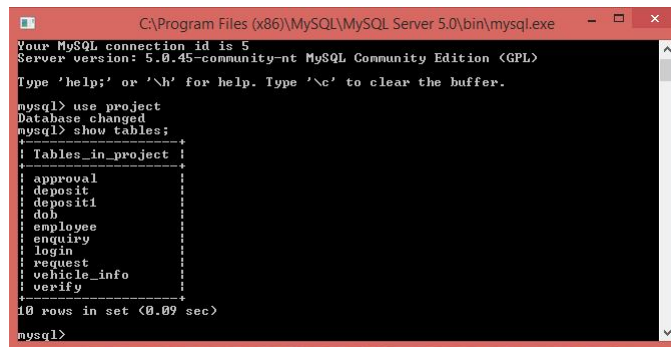
- **Planning Phase:**
Requirements are gathered during the planning phase. Requirements like BRS that is Business Requirement Specifications and SRS that is System Requirement specifications.
- **Risk Analysis:**
In the risk analysis phase, a process is undertaken to identify risk and alternate solutions. A prototype is produced at the end of the risk analysis phase. If any risk is found during the risk analysis then alternate solutions are suggested and implemented.
- **Engineering Phase:**
In this phase software is developed, along with testing at the end of the phase. Hence in this phase the development and testing is done. Evaluation phase: This phase allows the

customer to evaluate the output of the project to date before the project continues to the next spiral.

CHAPTER 3

DATABASE DESIGN

3.1 TABLE STRUCTURES



```
C:\Program Files (x86)\MySQL\MySQL Server 5.0\bin\mysql.exe
Your MySQL connection id is 5
Server version: 5.0.45-community-nt MySQL Community Edition (GPL)
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use project
Database changed
mysql> show tables;
+-----+
| Tables_in_project |
+-----+
| approval          |
| deposit            |
| deposit1           |
| dob                |
| employee           |
| enquiry            |
| login              |
| request            |
| vehicle_info       |
| verify             |
+-----+
10 rows in set (0.09 sec)

mysql>
```

Figure 3.1: Tables in the entire database.

```

C:\Program Files (x86)\MySQL\MySQL Server 5.0\bin\mysql.exe
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 6
Server version: 5.0.45-community-nt MySQL Community Edition (GPL)

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use project
Database changed
mysql> desc approval;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Customer_Id | varchar(20) | NO | PRI | NULL |  |
| Name | varchar(50) | YES |  | NULL |  |
| Father_Name | varchar(50) | YES |  | NULL |  |
| DOB | date | YES |  | NULL |  |
| Address | varchar(100) | YES |  | NULL |  |
| State | varchar(50) | YES |  | NULL |  |
| Phone | varchar(15) | YES |  | NULL |  |
| Email | varchar(50) | YES |  | NULL |  |
| Vehicle_Type | varchar(50) | YES |  | NULL |  |
| Vehicle_Name | varchar(50) | YES |  | NULL |  |
| Model | varchar(50) | YES |  | NULL |  |
| Price | varchar(50) | YES |  | NULL |  |
| Finance_Amount | varchar(50) | YES |  | NULL |  |
| Required_Downpayment | varchar(50) | YES |  | NULL |  |
| Installments | varchar(20) | YES |  | NULL |  |
| Rate_of_Interest | varchar(50) | YES |  | NULL |  |
| Service_Tax | varchar(50) | YES |  | NULL |  |
| Documentation_Charges | varchar(50) | YES |  | NULL |  |
| EMI | varchar(50) | YES |  | NULL |  |
| Contract_From | date | YES |  | NULL |  |
| Contract_End | date | YES |  | NULL |  |
| Sanction_Officer | varchar(50) | YES |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
22 rows in set (0.09 sec)

mysql>

```

Figure 3.2: table structure of approval

```

C:\Program Files (x86)\MySQL\MySQL Server 5.0\bin\mysql.exe
Enter password: *
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 7
Server version: 5.0.45-community-nt MySQL Community Edition (GPL)

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use project
Database changed
mysql> desc deposit;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Customer_Id | varchar(20) | YES |  | NULL |  |
| Name | varchar(50) | YES |  | NULL |  |
| Father_Name | varchar(50) | YES |  | NULL |  |
| DOB | date | YES |  | NULL |  |
| Phone_No | varchar(15) | YES |  | NULL |  |
| Email | varchar(50) | YES |  | NULL |  |
| Mode_of_Payment | varchar(50) | YES |  | NULL |  |
| EMI_No | varchar(30) | YES |  | NULL |  |
| Basic_Amount | varchar(30) | YES |  | NULL |  |
| Basic_Interest | varchar(30) | YES |  | NULL |  |
| Service_Tax | varchar(30) | YES |  | NULL |  |
| Documentation_Charges | varchar(30) | YES |  | NULL |  |
| EMI_Amount | varchar(30) | YES |  | NULL |  |
| Due_Date | varchar(30) | YES |  | NULL |  |
| EMI_Amount_Recieved | varchar(30) | YES |  | NULL |  |
| Recieved_Date | varchar(30) | YES |  | NULL |  |
| Reciept_No | varchar(30) | YES |  | NULL |  |
| Cheque_No | varchar(30) | YES |  | NULL |  |
| Bank_Name | varchar(30) | YES |  | NULL |  |
| Bank_Branch | varchar(30) | YES |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
20 rows in set (0.09 sec)

mysql>

```

Figure 3.3: table structure of deposit

```

C:\Program Files (x86)\MySQL\MySQL Server 5.0\bin\mysql.exe
Enter password: *
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 5.0.45-community-nt MySQL Community Edition (GPL)

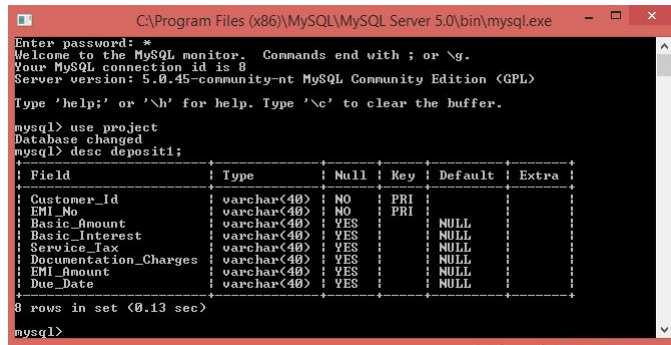
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use project
Database changed
mysql> desc dob;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| dob | date | YES |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.08 sec)

mysql>

```

Figure 3.4: table structure of dob



```

C:\Program Files (x86)\MySQL\MySQL Server 5.0\bin\mysql.exe
Enter password: *
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 5.0.45-community-nt MySQL Community Edition (GPL)
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

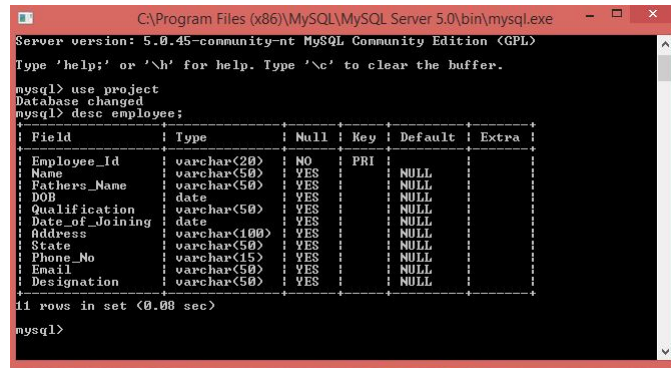
mysql> use project
Database changed
mysql> desc deposit1;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Customer_Id | varchar(40) | NO | PRI | | |
| EMI_No | varchar(40) | NO | PRI | | |
| Basic_Amount | varchar(40) | YES | | NULL | |
| Basic_Interest | varchar(40) | YES | | NULL | |
| Service_Tax | varchar(40) | YES | | NULL | |
| Documentation_Charges | varchar(40) | YES | | NULL | |
| EMI_Amount | varchar(40) | YES | | NULL | |
| Due_Date | varchar(40) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.13 sec)

mysql>

```

Field	Type	Null	Key	Default	Extra
Customer_Id	varchar(40)	NO	PRI		
EMI_No	varchar(40)	NO	PRI		
Basic_Amount	varchar(40)	YES		NULL	
Basic_Interest	varchar(40)	YES		NULL	
Service_Tax	varchar(40)	YES		NULL	
Documentation_Charges	varchar(40)	YES		NULL	
EMI_Amount	varchar(40)	YES		NULL	
Due_Date	varchar(40)	YES		NULL	

Figure 3.5: table structure of deposit1



```

C:\Program Files (x86)\MySQL\MySQL Server 5.0\bin\mysql.exe
Server version: 5.0.45-community-nt MySQL Community Edition (GPL)
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

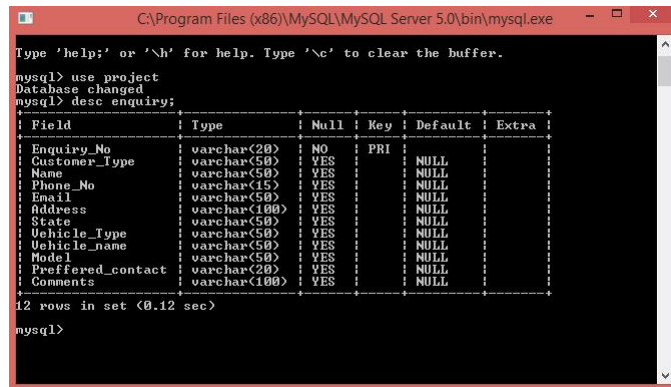
mysql> use project
Database changed
mysql> desc employee;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Employee_Id | varchar(20) | NO | PRI | | |
| Name | varchar(50) | YES | | NULL | |
| Fathers_Name | varchar(50) | YES | | NULL | |
| DOB | date | YES | | NULL | |
| Qualification | varchar(50) | YES | | NULL | |
| Date_of_Joining | date | YES | | NULL | |
| Address | varchar(100) | YES | | NULL | |
| State | varchar(50) | YES | | NULL | |
| Phone_No | varchar(15) | YES | | NULL | |
| Email | varchar(50) | YES | | NULL | |
| Designation | varchar(50) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
11 rows in set (0.08 sec)

mysql>

```

Field	Type	Null	Key	Default	Extra
Employee_Id	varchar(20)	NO	PRI		
Name	varchar(50)	YES		NULL	
Fathers_Name	varchar(50)	YES		NULL	
DOB	date	YES		NULL	
Qualification	varchar(50)	YES		NULL	
Date_of_Joining	date	YES		NULL	
Address	varchar(100)	YES		NULL	
State	varchar(50)	YES		NULL	
Phone_No	varchar(15)	YES		NULL	
Email	varchar(50)	YES		NULL	
Designation	varchar(50)	YES		NULL	

Figure 3.6: table structure of employee



```

C:\Program Files (x86)\MySQL\MySQL Server 5.0\bin\mysql.exe
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use project
Database changed
mysql> desc enquiry;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Enquiry_No | varchar(20) | NO | PRI | | |
| Customer_Type | varchar(50) | YES | | NULL | |
| Name | varchar(50) | YES | | NULL | |
| Phone_No | varchar(15) | YES | | NULL | |
| Email | varchar(50) | YES | | NULL | |
| Address | varchar(100) | YES | | NULL | |
| State | varchar(50) | YES | | NULL | |
| Vehicle_Type | varchar(50) | YES | | NULL | |
| Vehicle_Name | varchar(50) | YES | | NULL | |
| Model | varchar(50) | YES | | NULL | |
| Preferred_contact | varchar(20) | YES | | NULL | |
| Comments | varchar(100) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
12 rows in set (0.12 sec)

mysql>

```

Field	Type	Null	Key	Default	Extra
Enquiry_No	varchar(20)	NO	PRI		
Customer_Type	varchar(50)	YES		NULL	
Name	varchar(50)	YES		NULL	
Phone_No	varchar(15)	YES		NULL	
Email	varchar(50)	YES		NULL	
Address	varchar(100)	YES		NULL	
State	varchar(50)	YES		NULL	
Vehicle_Type	varchar(50)	YES		NULL	
Vehicle_Name	varchar(50)	YES		NULL	
Model	varchar(50)	YES		NULL	
Preferred_contact	varchar(20)	YES		NULL	
Comments	varchar(100)	YES		NULL	

Figure 3.7: table structure of enquiry

```

C:\Program Files (x86)\MySQL\MySQL Server 5.0\bin\mysql.exe
Enter password: *
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 14
Server version: 5.0.45-community-nt MySQL Community Edition (GPL)

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use project;
Database changed
mysql> desc login;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| login_as | varchar(30) | YES |  | NULL |  |
| username | varchar(50) | NO | PRI | NULL |  |
| password | varchar(20) | YES |  | NULL |  |
+-----+-----+-----+-----+-----+
3 rows in set (0.13 sec)

mysql>

```

Figure 3.8: table structure of login

```

C:\Program Files (x86)\MySQL\MySQL Server 5.0\bin\mysql.exe
Enter password: *
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 15
Server version: 5.0.45-community-nt MySQL Community Edition (GPL)

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use project
Database changed
mysql> desc request;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| Enquiry_No | varchar(20) | YES |  | NULL |  |
| Customer_Id | varchar(20) | NO | PRI | NULL |  |
| Customer_Type | varchar(50) | YES |  | NULL |  |
| Name | varchar(50) | YES |  | NULL |  |
| Father_Name | varchar(50) | YES |  | NULL |  |
| Vehicle_Type | varchar(50) | YES |  | NULL |  |
| Vehicle_Name | varchar(50) | YES |  | NULL |  |
| Model | varchar(50) | YES |  | NULL |  |
| Price | varchar(50) | YES |  | NULL |  |
| Annual_Income | varchar(50) | YES |  | NULL |  |
| Down_Payment | varchar(50) | YES |  | NULL |  |
| Amount | varchar(50) | YES |  | NULL |  |
| Installments | varchar(50) | YES |  | NULL |  |
| Address | varchar(100) | YES |  | NULL |  |
| State | varchar(50) | YES |  | NULL |  |
| Phone_No | varchar(15) | YES |  | NULL |  |
| Email | varchar(50) | YES |  | NULL |  |
| DOB | date | YES |  | NULL |  |
+-----+-----+-----+-----+-----+
18 rows in set (0.09 sec)

mysql>

```

Figure 3.9: table structure of request

```

C:\Program Files (x86)\MySQL\MySQL Server 5.0\bin\mysql.exe
Enter password: *
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 11
Server version: 5.0.45-community-nt MySQL Community Edition (GPL)

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use project
Database changed
mysql> desc vehicle_info;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| Product_Id | varchar(30) | NO | PRI | NULL |  |
| Vehicle_Type | varchar(50) | YES |  | NULL |  |
| Vehicle_Name | varchar(50) | YES |  | NULL |  |
| Model | varchar(50) | YES |  | NULL |  |
| Price | varchar(50) | YES |  | NULL |  |
+-----+-----+-----+-----+-----+
5 rows in set (0.13 sec)

mysql>

```

Figure 3.10: table structure of vehicleinfo

```

C:\Program Files (x86)\MySQL\MySQL Server 5.0\bin\mysql.exe
Enter password: *
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 16
Server version: 5.0.45-community-nt MySQL Community Edition (GPL)

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use project
Database changed
mysql> desc verify;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Customer_Id | varchar(20) | NO | PRI | NULL |  |
| Name | varchar(50) | YES |  | NULL |  |
| Father_Name | varchar(50) | YES |  | NULL |  |
| DOB | date | YES |  | NULL |  |
| Address | varchar(100) | YES |  | NULL |  |
| State | varchar(50) | YES |  | NULL |  |
| Residence_Type | varchar(50) | YES |  | NULL |  |
| Phone_No | varchar(15) | YES |  | NULL |  |
| Email | varchar(50) | YES |  | NULL |  |
| Aadhaar | varchar(50) | YES |  | NULL |  |
| Voter | varchar(50) | YES |  | NULL |  |
| Passport | varchar(50) | YES |  | NULL |  |
| License | varchar(50) | YES |  | NULL |  |
| Account_No | varchar(50) | YES |  | NULL |  |
| Bank | varchar(50) | YES |  | NULL |  |
| Branch | varchar(50) | YES |  | NULL |  |
| Employment_Type | varchar(50) | YES |  | NULL |  |
| Annual_Income | varchar(50) | YES |  | NULL |  |
| C_Name | varchar(50) | YES |  | NULL |  |
| C_Phone_No | varchar(15) | YES |  | NULL |  |
| C_Address | varchar(100) | YES |  | NULL |  |
| Cibal_Report | varchar(20) | YES |  | NULL |  |
| Verification | varchar(20) | YES |  | NULL |  |
| Finance_Executive | varchar(50) | YES |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
24 rows in set (0.11 sec)

mysql>

```

Figure 3.11: table structure of verify

4.1 PAGES

- Enter Login Details: LoginAs, Uder ID and Password

- Master

Definition of Master : All the information your company needs is stored in a data record in the master data, sorted by various different criteria. You can enter and change most of the data in master data by head . In master we have all Employee details which includes their name, employee id ,address, phone number,email etc. and Vehicle details which includes product id, vehicle type , vehicle name ,model,price .

Master Data Module contains various sections:

- Employee Details
- Vehicle Detail

- Transaction

Definition of Transaction: It includes enquiry,request, verification, approval and deposit information of the vehicle .

- Enquiry: In this section, customer enquiry details are there. We can select the vehicle type which enables to select vehicle name and it automatically displays vehicle model.
- Request: It consist of request form which contains the payment record including instalments.
- Verification: It includes verification of the customer details.
- Approval: After the verification is successfully over, then request is approved.
- Deposit: It consist of deposit details like the mode of payment, taxes, due date etc.

- Listing

Definition of List of Data: This section provides the list of data. The List of data includes all the data of a particular section.

- Enquiry
 - Enquiry Details
 - Request
 - Request Details
 - Verification
 - Approval
 - Deposit
 - Employee Details
 - Vehicle Details
- Settings
- Settings: This section provide us account settings, File Chooser, Web Browser and Backup. Account settings and backup only access by head.
- Settings Module contains various sections:
- Account Settings: In Account Settings, System Head can Create a new user account and can change the password of existing accounts in the system. Change Password can be used if in any case user forget password of his account.
 - File Chooser: Afile chooser is acomputer programthat provides auser interfaceto work withfile systems. User can access any type of document (like pdf,mp3,jpg).
 - Web Browser: Afile chooser is acomputer programthat provides auser interfaceto work withfile systems. User can access any type of document (like pdf,mp3,jpg).

CHAPTER 5

IMPLEMENTATION, TESTING AND MAINTENANCE

5.1 Introduction To Language

FRONTEND

5.1.1 JAVA



Figure 5.1: Java logo

Java is a programming language created by James Gosling from Sun Microsystems (Sun) in 1991. The target of Java is to write a program once and then run this program on multiple operating systems. The first publicly available version of Java (Java 1.0) was released in 1995. Sun Microsystems was acquired by the Oracle Corporation in 2010. Oracle has now the steermanship for Java. In 2006 Sun started to make Java available under the GNU General Public License (GPL). Oracle continues this project called OpenJDK.

Over time new enhanced versions of Java have been released. The current version of Java is Java 1.8 which is also known as Java 8.

Java is defined by a specification and consists of a programming language, a compiler, core libraries and a runtime (Java virtual machine). The Java runtime allows software developers to write program code in other languages than the Java programming language which still runs on the Java virtual machine. The Java platform is usually associated with the Java virtual machine and the Java core libraries.

The Java language was designed with the following properties:

- Platform independent:
Java programs use the Java virtual machine as abstraction and do not access the operating system directly. This makes Java programs highly portable. A Java program (which is standard-compliant and follows certain rules) can run unmodified on all supported platforms, e.g., Windows or Linux.
- Object-orientated programming language:
Except the primitive data types, all elements in Java are objects.
- Strongly-typed programming language:
Java is strongly-typed, e.g., the types of the used variables must be pre-defined and conversion to other objects is relatively strict, e.g., must be done in most cases by the programmer.
- Interpreted and compiled language:
Java source code is transferred into the bytecode format which does not depend on the target platform. These bytecode instructions will be interpreted by the Java Virtual machine (JVM). The JVM contains a so called Hotspot-Compiler which translates performance critical bytecode instructions into native code instructions.
- Automatic memory management:
Java manages the memory allocation and de-allocation for creating new objects. The program does not have direct access to the memory. The so-called garbage collector automatically deletes objects to which no active pointer exists.

The Java syntax is similar to C++. Java is case-sensitive, e.g., variables called myValue and myvalue are treated as different variables.

BACKEND

5.1.2 LAMP



Figure 5.2: LAMP

LAMP is an open source Web development platform that uses Linux as the operating system, Apache as the Web server, MySQL as the relational database management system and PHP as the object-oriented scripting language. (Sometimes Perl or Python is used instead of PHP.)

Because the platform has four layers, LAMP is sometimes referred to as a LAMP stack. Stacks can be built on different operating systems.

6.1 SNAPSHOTS OF SYSTEM

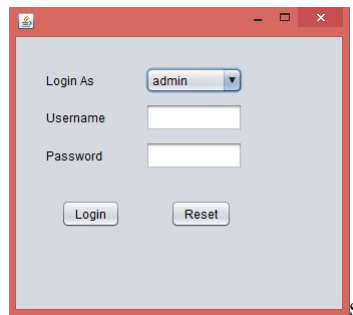


Figure 6.1: Login Details

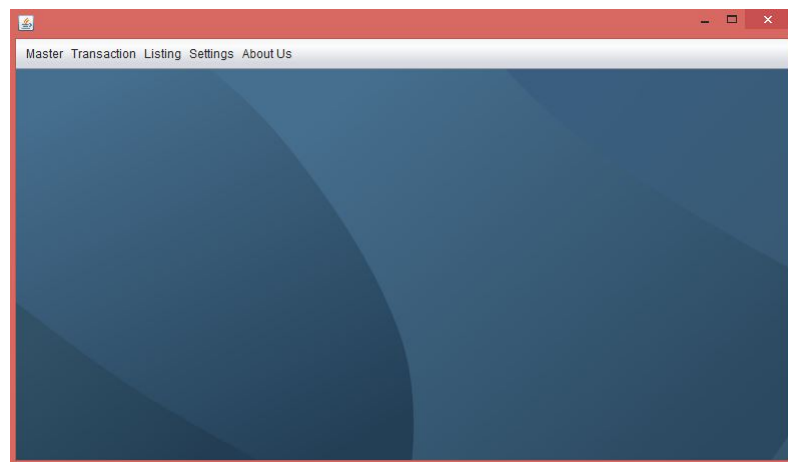


Figure 6.2: Main Screen of Project

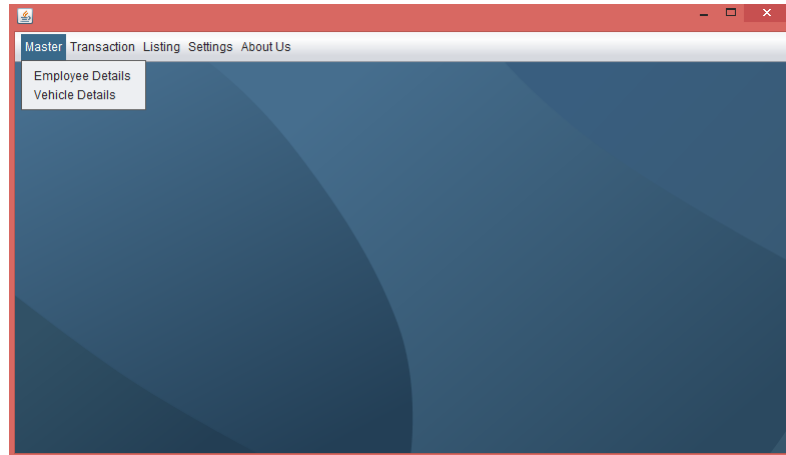


Figure 6.3: Master

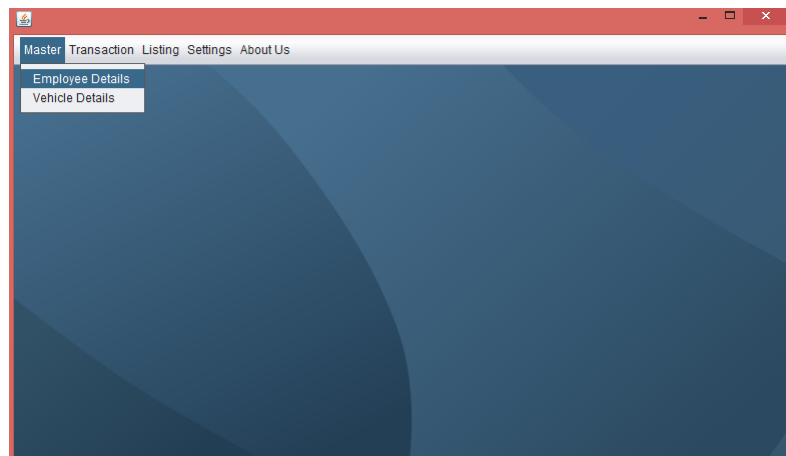


Figure 6.4: Master: Employee Details

A screenshot of the "EMPLOYEE DETAILS" form within the application. The form is a light gray box with a title bar that says "EMPLOYEE DETAILS". It contains several input fields and dropdown menus for employee information. At the bottom of the form are five buttons: "Insert", "Update", "Search", "Delete", and "Reset".

Employee Id	3
Name	
Father's Name	
DOB	1955 01
Qualification	Graduation
Date of Joining	1955 01
Designation	Sanction Officer
Address	
State	Andhra Pradesh
Phone no.	
E-mail	

Figure 6.5: Employee Details

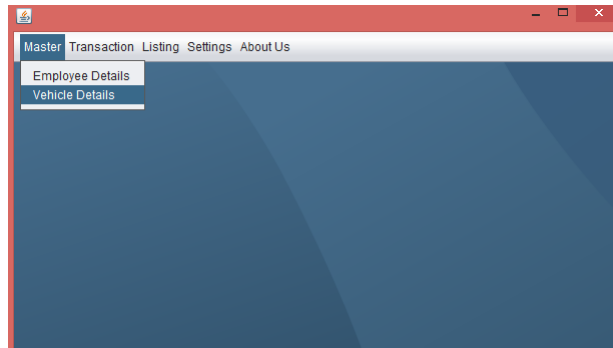


Figure 6.6: Master:Vehicle Details

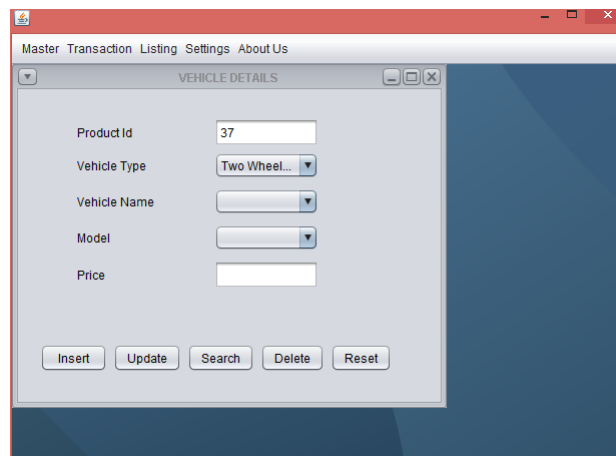


Figure 6.7: Vehicle Details

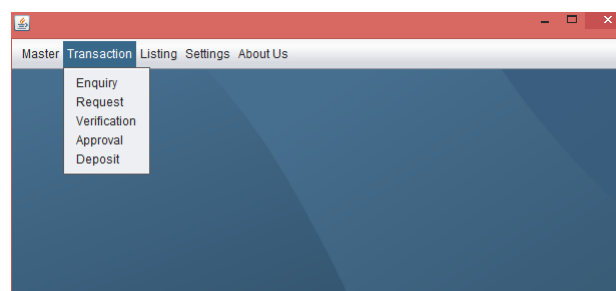


Figure 6.8: Transaction

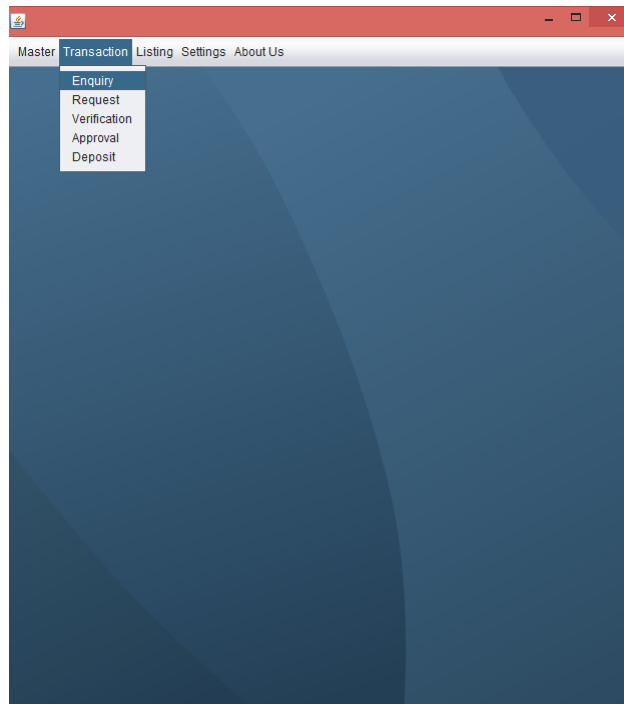


Figure 6.9: Transaction:Enquiry

A screenshot of the 'ENQUIRY FORM' window in the same software application. The window has a red title bar and a menu bar with 'Master', 'Transaction', 'Listing', 'Settings', and 'About Us'. The form contains the following fields and controls:

- Enquiry No.: Text input field with the value '2'.
- Customer Type: Dropdown menu with 'Individual' selected.
- Name: Text input field.
- Phone No.: Text input field.
- E-mail: Text input field.
- Address: Text area with a scrollbar.
- State: Dropdown menu with 'Andhra Pradesh' selected.
- Vehicle Type: Dropdown menu with 'Two Wheeler' selected.
- Vehicle Name: Text input field.
- Model: Text input field.
- Preferred Contact: Radio buttons for 'Phone' and 'E-mail'.
- Comments: Text area with a scrollbar.

At the bottom of the form are five buttons: 'Insert', 'Update', 'Search', 'Delete', and 'Reset'.

Figure 6.10: Enquiry Form

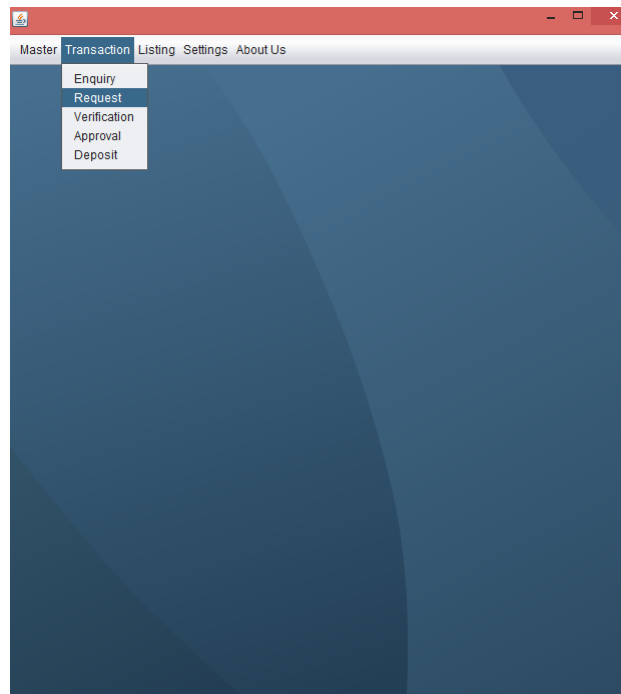


Figure 6.11: Transaction:Request

A screenshot of a software application window showing a 'REQUEST FORM'. The title bar is red. The menu bar includes 'Master', 'Transaction', 'Listing', 'Settings', and 'About Us'. The 'Transaction' menu is open, showing a list of options: 'Enquiry', 'Request', 'Verification', 'Approval', and 'Deposit'. The 'Request' option is highlighted. The background of the application window is a dark blue gradient. The form itself is a light gray panel on the left side of the window. It contains various input fields and buttons. The fields are: 'Enquiry No.' (text box with '2'), 'Customer Id' (text box with '2'), 'Customer Type' (dropdown menu with 'Individual'), 'Customer Name' (text box), 'Father's Name' (text box), 'D.O.B.' (date picker with '1955' and '01'), 'Vehicle Type' (dropdown menu with 'Two Wheeler'), 'Vehicle Name' (text box), 'Model' (text box), 'Price' (text box), 'Annual Income' (text box), 'Down Payment' (text box), 'Amount to be Financed' (text box), 'No. of Installments requir...' (dropdown menu with '6'), 'Address' (text box), 'State' (dropdown menu with 'Andhra Pradesh'), 'Phone No.' (text box), and 'E-mail' (text box). There are buttons for 'Find', 'Insert', 'Update', 'Search', 'Delete', and 'Reset'.

Figure 6.12: Request Form

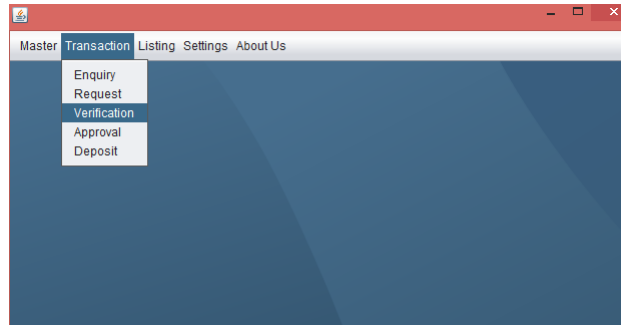


Figure 6.13: Verification

A screenshot of the 'Verification' form in the application. The form is titled 'Verification' and has a 'Find' button. It contains two columns of input fields. The left column includes: Customer Id (with value '2'), Father's Name, Address, Adhaar Card No., Passport No., Bank Account No., Branch of Bank, Annual Income, Gurrantor's Name, Gurrantor's Phone No., Cibal's Report (radio buttons for Yes/No), and Finance Executive (with value 'Mr. Pratap Bajwa'). The right column includes: Customer Name, D.O.B. (with values '1955' and '01'), State (with value 'Andhra Pradesh'), Residence Type (with value 'Own House'), Phone No., E-mail, Voter Card No., License No., Bank Name (with value 'SBI'), Employment Type (with value 'Self Employed'), Gurrantor's Address, and Verification Report (radio buttons for Yes/No). At the bottom are buttons: Insert, Update, Search, Delete, and Reset.

Figure 6.14: Verification Form

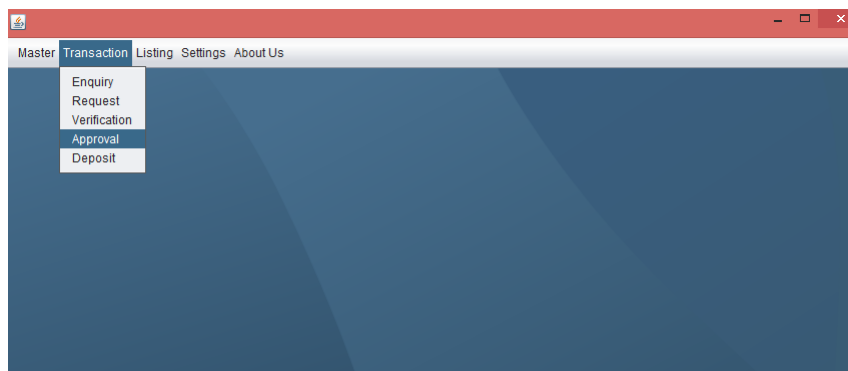


Figure 6.15: Approval

The screenshot shows a software window titled "APPROVAL FORM" with a menu bar (Master, Transaction, Listing, Settings, About Us) and a toolbar. The form is divided into two columns of input fields. The left column contains: Customer Id (text box with value 3), Father's Name (text box), Address (text area), Vehicle Type (dropdown menu with "Two Wheeler" selected), Model (dropdown menu), Finance Amount Approved (text box), No. of Installments (dropdown menu with value 6), Service Tax (text box), Net Amount (text box), and Contract Ending on (text box). The right column contains: Customer Name (text box), D.O.B. (date picker with "1955" and "01" selected), State (dropdown menu with "Andhra Pradesh" selected), Phone No (text box), E-mail (text box), Vehicle Name (dropdown menu), Price (text box), Down Payment Required (text box), Rate of Interest (dropdown menu with value 10), Documentation Charges (text box), Contract Starting from (text box with value "2015/11/3"), and Sanction Officer (dropdown menu with "Mr. Abhishek Batra" selected). A "Find" button is located between the Customer Id and Customer Name fields. At the bottom of the form are five buttons: Insert, Update, Search, Delete, and Reset.

Figure 6.16: Approval Form

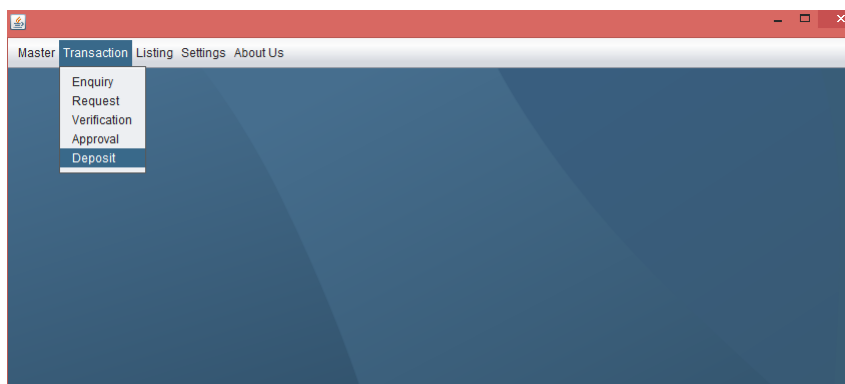


Figure 6.17: Deposit

The screenshot shows a web application window titled "DEPOSIT FORM". The window has a menu bar with "Master", "Transaction", "Listing", "Settings", and "About Us". Below the menu bar, there are input fields for "Customer Id", "Father's Name", "Phone No", and "Mode of Payment" (set to "By Cash"). There is also a "Find" button. To the right, there are input fields for "Customer Name", "D.O.B." (with dropdowns for year "1955", month "01", and day), and "E-mail". Below these fields is a table with the following headers: "EMI No.", "Basic Amou...", "Basic Intere...", "Service Tax", "Documenta...", "EMI Amount", "Due Date", "EMI Amount...", "Recieved d...", "Receipt No", "Cheque No", "Bank Name", and "Bank Branch". The table body is empty. At the bottom of the window, there are buttons for "Insert", "Update", "Search", "Delete", and "Reset".

Figure 6.18: Deposit Form



Figure 6.19: Listing



Figure 6.20: Enquiry

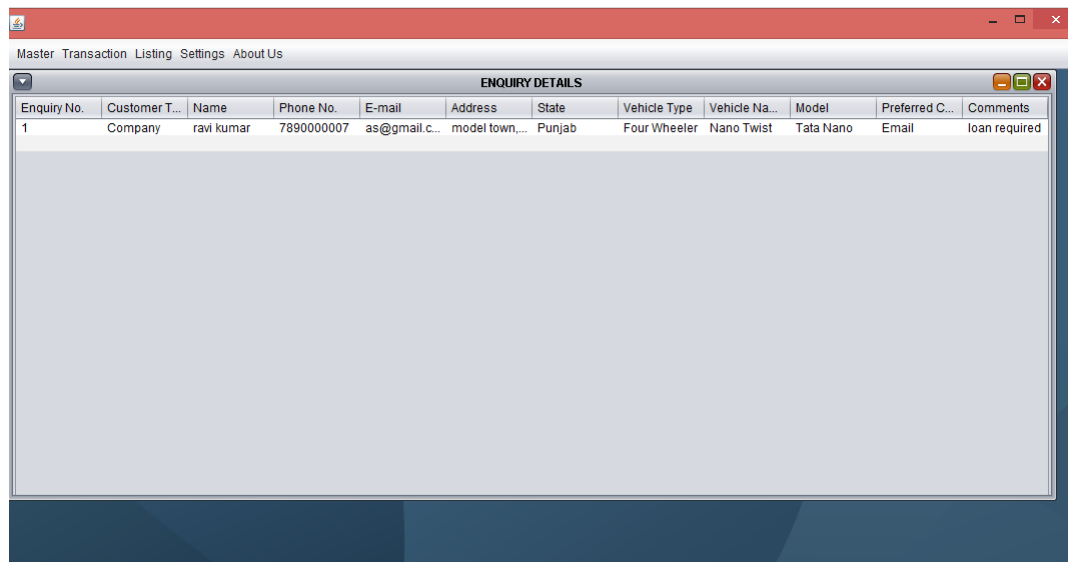


Figure 6.21: Enquiry Details



Figure 6.22: Request

Enquiry ...	Custom...	Custom...	Name	Father's ...	Vehicle ...	Vehicle ...	Model	Price	Annual I...	Down P...	Amount...	No. of In...	Address	State	Phone No.	E-mail
1	1	Company	ravi kumar	harjinder...	Four Wh...	Tata Nano	Nano Tw...	257000	300000	50000	193000	12	model to...	Punjab	9815154...	as@gm...

Figure 6.23: Request Details

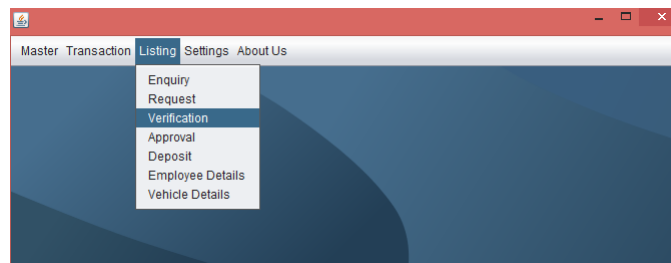


Figure 6.24: Verification

Custo...	Name	Father...	DOB	Addre...	State	Type ...	Phon...	E-mail	Adhaa...	Voter...	Pass...	Licen...	Bank ...	Bank ...	Bank ...	Type ...	Annua...	Gurra...	Gurra...	Gurra...	Cibal'...	Verific...	Finan...
1	ravi ku...	harjin...	1958...	model...	Punjab	Paren...	98151...	as@g...	as879...	hg797...	80866...	pb786...	56878...	ICICI	Civil L...	Privat...	300000	surind...	45221...	model...	Yes	Yes	null

Figure 6.25: Verification

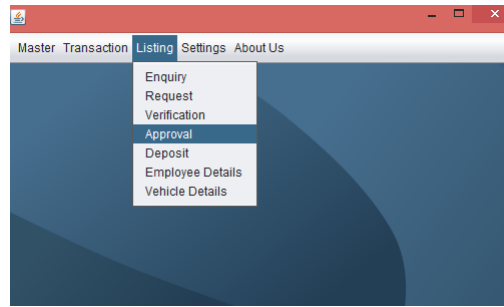


Figure 6.26: Approval

 A screenshot of a software application window with a red title bar. The menu bar includes 'Master', 'Transaction', 'Listing', 'Settings', and 'About Us'. The window displays a table with the following data:

Customer Id	Amount Financed	No. of Installments	Total Interest	Service Tax	Documentation Ch...	EMI Amount	Contract Starting Fr...	Contract Ending On
1	80000	12	12	134.4	1600.0	7611.2	2015-07-15	2016-07-15
2	80000	16	12	134.4	1600.0	7611.2	2015-07-15	2016-07-15

 Below the table is another table with headers: 'Customer Id', 'EMI No.', 'Basic Amount', 'Basic Interest', 'Service Tax', 'Documentation...', 'EMI Amount', 'Due Date', 'EMI Amount R...', 'Recieved date', and 'Mode of Paym...'. An 'Insert' button is located at the bottom left of the window.

Figure 6.27: Approval

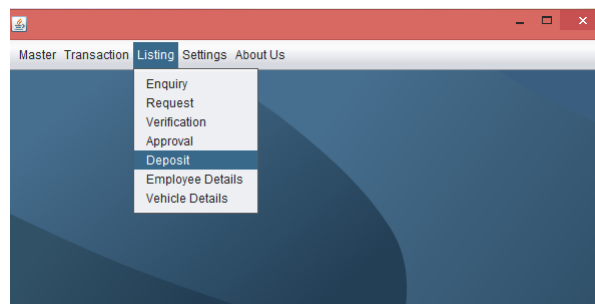


Figure 6.28: Deposit

The screenshot shows a web application window titled "DEPOSIT FORM". The window has a menu bar with "Master", "Transaction", "Listing", "Settings", and "About Us". Below the menu bar, there are input fields for "Customer Id", "Father's Name", "Phone No", and "Mode of Payment" (set to "By Cash"). There are also input fields for "Customer Name", "D.O.B." (with dropdowns for year "1955" and month "01"), and "E-mail". A "Find" button is located between the "Customer Id" and "Customer Name" fields. Below the input fields is a table with the following columns: "EMI No.", "Basic Amou...", "Basic Intere...", "Service Tax", "Documenta...", "EMI Amount", "Due Date", "EMI Amount...", "Recieved d...", "Reciept No", "Cheque No", "Bank Name", and "Bank Branch". The table is currently empty. At the bottom of the window, there are five buttons: "Insert", "Update", "Search", "Delete", and "Reset".

Figure 6.29: Deposit Details

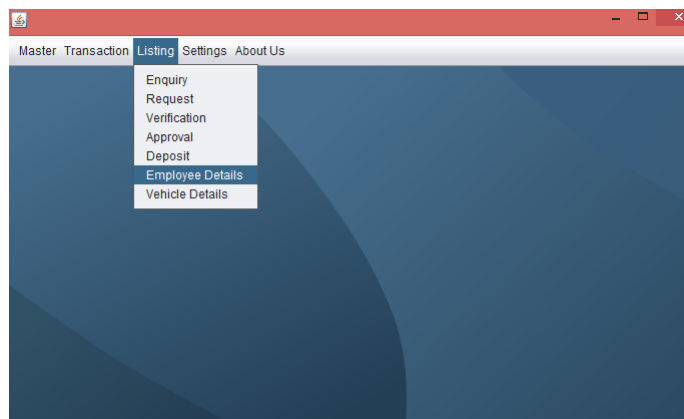
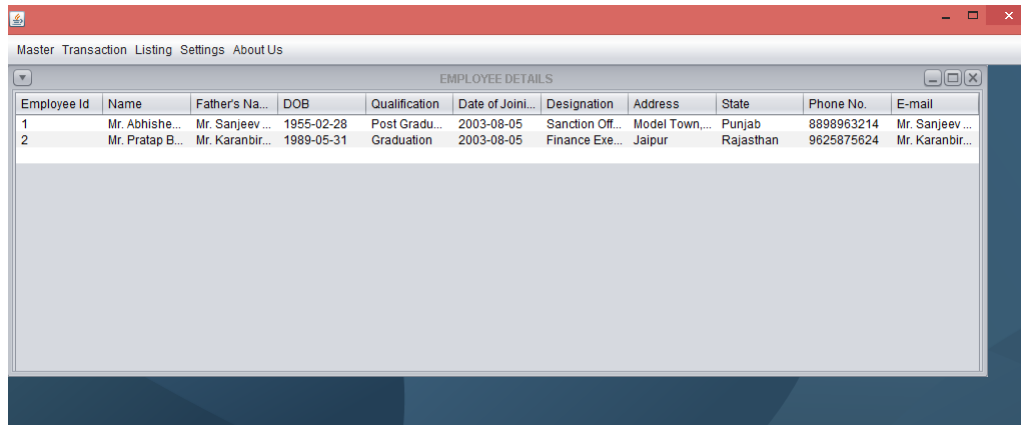


Figure 6.30: Employee Details



The screenshot shows a software window titled 'EMPLOYEE DETAILS'. It contains a table with the following data:

Employee Id	Name	Father's Na...	DOB	Qualification	Date of Join...	Designation	Address	State	Phone No.	E-mail
1	Mr. Abhishe...	Mr. Sanjeev ...	1955-02-28	Post Gradu...	2003-08-05	Sanction Off...	Model Town,...	Punjab	8898963214	Mr. Sanjeev ...
2	Mr. Pratap B...	Mr. Karanbir...	1989-05-31	Graduation	2003-08-05	Finance Exe...	Jaipur	Rajasthan	9625875624	Mr. Karanbir...

Figure 6.31: Employee Details

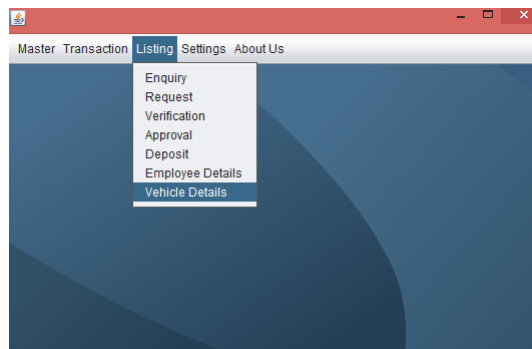
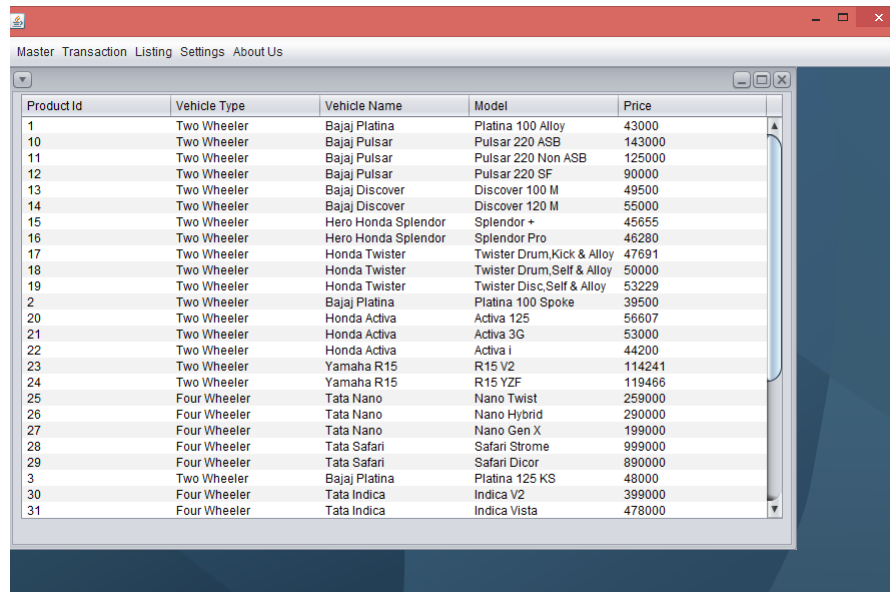


Figure 6.32: Vehicle Details



Product Id	Vehicle Type	Vehicle Name	Model	Price
1	Two Wheeler	Bajaj Platina	Platina 100 Alloy	43000
10	Two Wheeler	Bajaj Pulsar	Pulsar 220 ASB	143000
11	Two Wheeler	Bajaj Pulsar	Pulsar 220 Non ASB	125000
12	Two Wheeler	Bajaj Pulsar	Pulsar 220 SF	90000
13	Two Wheeler	Bajaj Discover	Discover 100 M	49500
14	Two Wheeler	Bajaj Discover	Discover 120 M	55000
15	Two Wheeler	Hero Honda Splendor	Splendor +	45655
16	Two Wheeler	Hero Honda Splendor	Splendor Pro	46280
17	Two Wheeler	Honda Twister	Twister Drum,Kick & Alloy	47691
18	Two Wheeler	Honda Twister	Twister Drum,Self & Alloy	50000
19	Two Wheeler	Honda Twister	Twister Disc,Self & Alloy	53229
2	Two Wheeler	Bajaj Platina	Platina 100 Spoke	39500
20	Two Wheeler	Honda Activa	Activa 125	56607
21	Two Wheeler	Honda Activa	Activa 3G	53000
22	Two Wheeler	Honda Activa	Activa I	44200
23	Two Wheeler	Yamaha R15	R15 V2	114241
24	Two Wheeler	Yamaha R15	R15 YZF	119466
25	Four Wheeler	Tata Nano	Nano Twist	259000
26	Four Wheeler	Tata Nano	Nano Hybrid	290000
27	Four Wheeler	Tata Nano	Nano Gen X	199000
28	Four Wheeler	Tata Safari	Safari Strome	999000
29	Four Wheeler	Tata Safari	Safari Dicor	890000
3	Two Wheeler	Bajaj Platina	Platina 125 KS	48000
30	Four Wheeler	Tata Indica	Indica V2	399000
31	Four Wheeler	Tata Indica	Indica Vista	478000

Figure 6.33: Vehicle Details

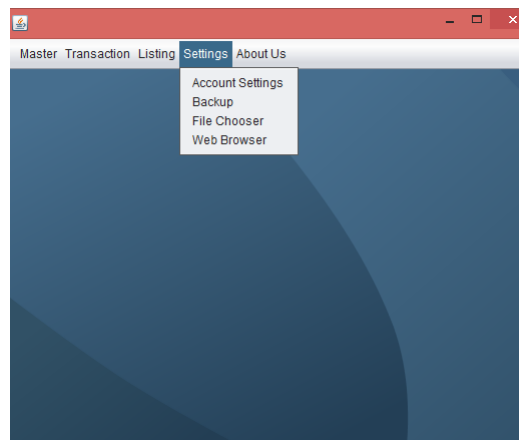


Figure 6.34: Settings

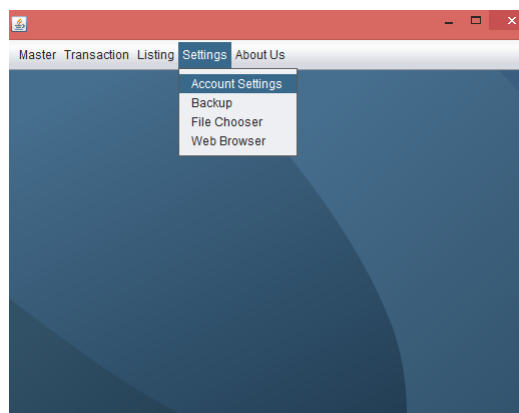


Figure 6.35: Account Settings

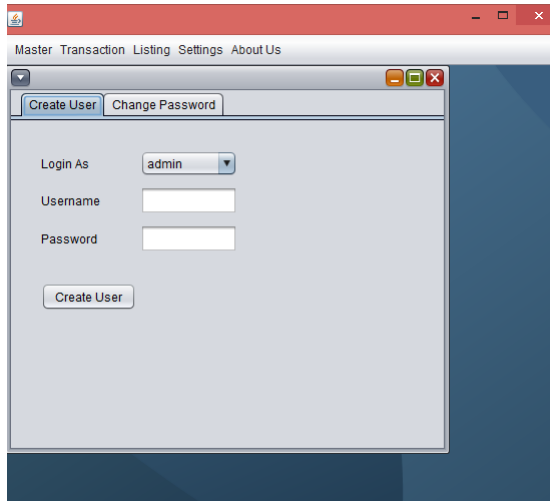


Figure 6.36: Account Settings

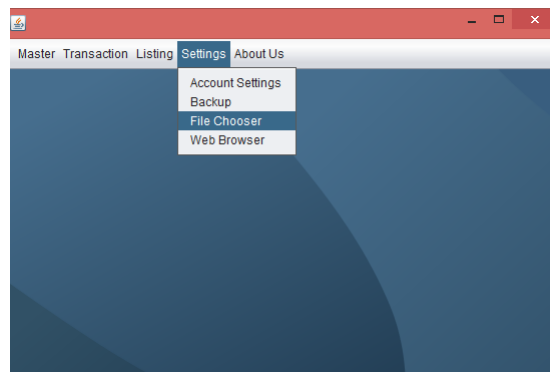


Figure 6.37: File Chooser

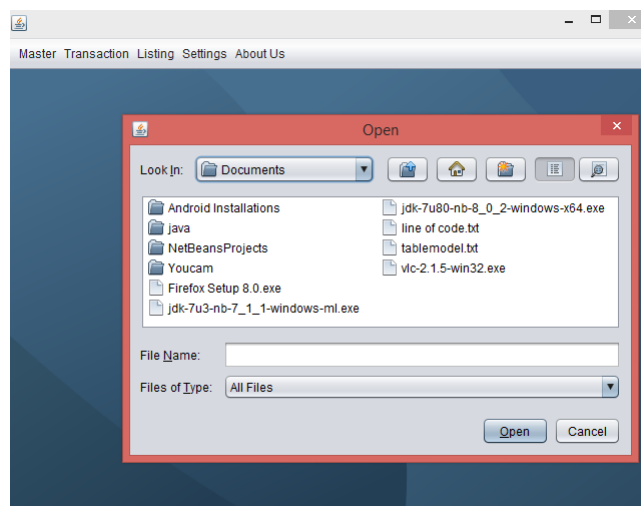


Figure 6.38: File Chooser

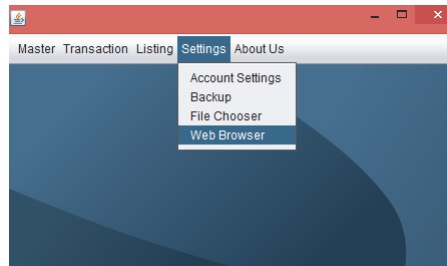


Figure 6.39: Web Browser

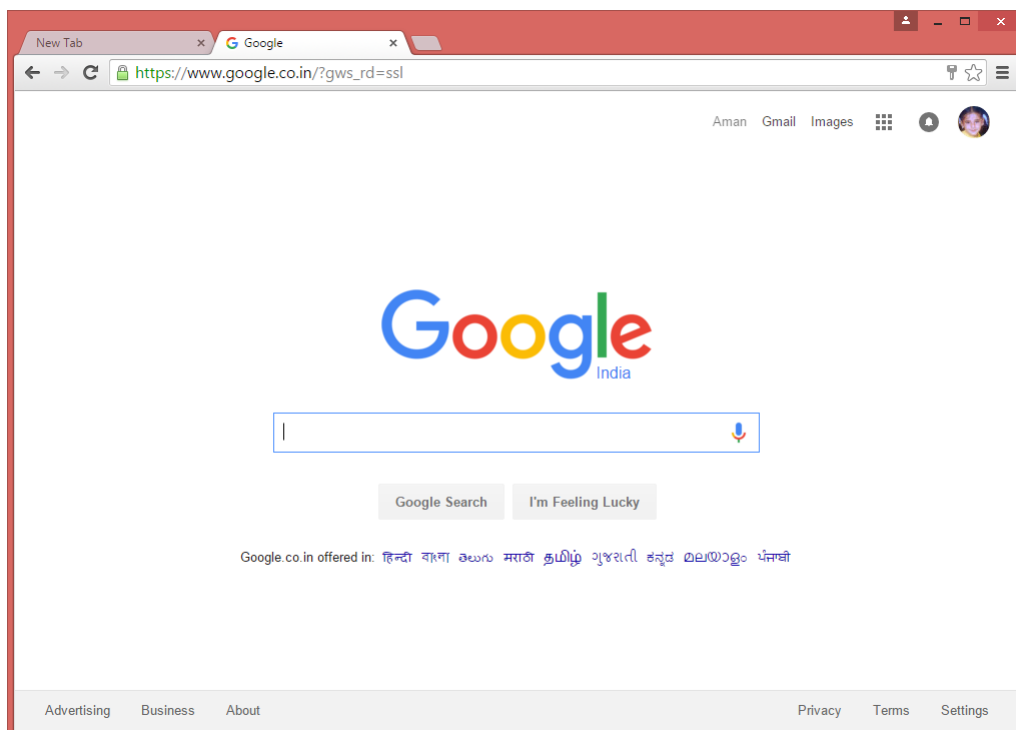


Figure 6.40: Web Browser

7.1 CONCLUSION

The proposed system that is Automobile Finance Management System AFMS is developed using Java and SQL that fully meets the objectives of the system for which it has been developed. The system has reached a steady state where all the bugs have been eliminated. The system is operated at a high level of efficiency and all the employees associated with the system understand its advantage. The system solves the problem it was intended to solve as requirement specification.

7.2 FUTURE SCOPE

The system would accomplish the following:

- Reduce the paperwork and storage area.
- Multiuser system.
- Improve accuracy in generate toll slip.
- Up to date listings for employees.
- Allow easy navigation by creating listing feature.
- Manage the man and machine resources efficiently.
- It has user friendly interface having quick authenticated access to information.
- Multiple utilities for head.
- Locate information easily by using search options.
- The system provides security through password authentication. The head and the employees are allocated with their user ids and passwords that help maintain the integrity of the system.

The scope is intended to be fulfilled because of the systems following features:

- Secure:
The project is provided with a proper back up maintained for the security of the information.
- Easy to Use:
The employees are provided with his user id and password to have a proper and secured access to the software and it is easy to use.
- Reliable and accurate:
An accurate and to the date information is being stored which can be viewed as and when required.

%chapterConclusion and Future Scope

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