AUTOMOBILE FINANCE MANAGEMENT

PROJECT REPORT
(MINOR PROJECT)

BACHELOR OF TECHNOLOGY
(Information Technology)

SUBMITTED BY
BIRJOT SINGH (1411246)
NIKHIL SARNA (1411291)

Department of Information Technology
Guru Nanak Dev Engineering College
Ludhiana 141006

Acknowledgement

I am highly grateful to Dr. M.S. Saini Director, Guru Nanak Dev Engineering College, Ludhiana for providing this opportunity to carry out minor project at Guru Nanak Dev Engineering College. The constant guidance and encouragement received from ER. Inderjeet Singh, Assistant Professor, Department of IT has been of great help in carrying out the project work and is acknowledged with reverential thanks.

I would like to express a deep sense of gratitude and thanks profusely to DR. K.S. Mann, Guru Nanak Dev Engineering College. Without his wise counsel and able guidance, it would have been impossible to complete the report in this manner. The author expresses gratitude to other faculty members of IT department of GNDEC for their intellectual support throughout the course of this work.

Last, but not the least I wish to thank my parents and friends who directly or indirectly have given me moral support and their relentless advice throughout the completion of this project work.

Birjot Singh
Nikhil Sarna

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.

CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1

INTRODUCTION

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:

- ADMIIN
  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 wills 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, case 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 fi. The functional view of the system is shown. Each function fi 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.

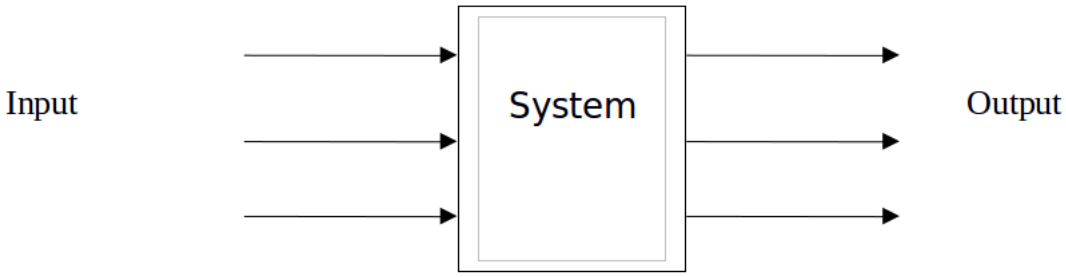

Figure 2.1: Functional Requirement

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.

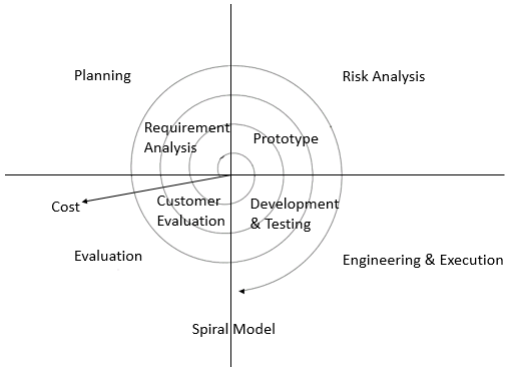

Figure 2.2: Spiral Model

- Planning Phase:
  Requirements are gathered during the planning phase. Requirements like BRS that is Bussiness 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

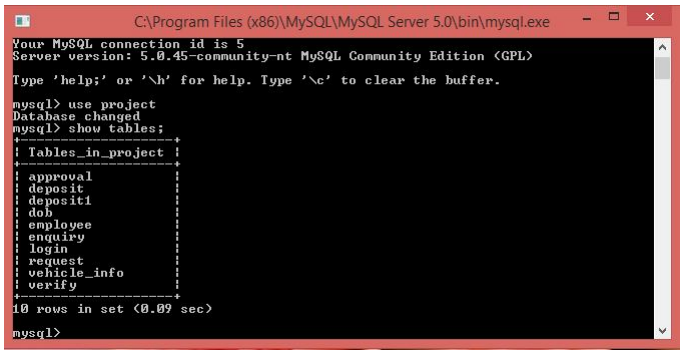

Figure 3.1: Tables in the entire database.

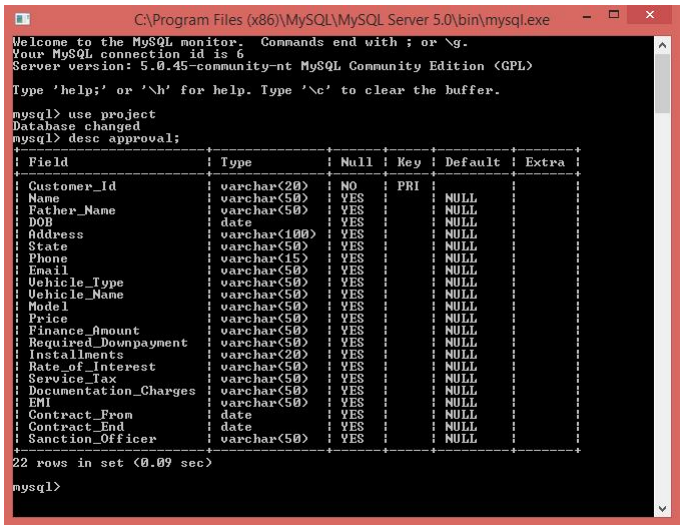

Figure 3.2: table structure of approval

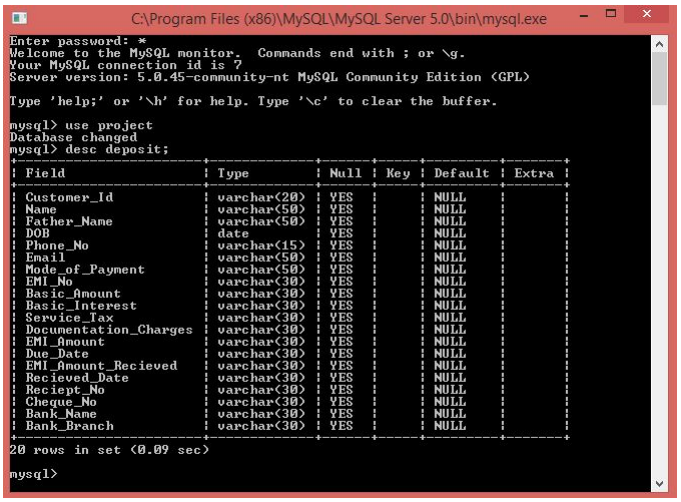

Figure 3.3: table structure of deposit

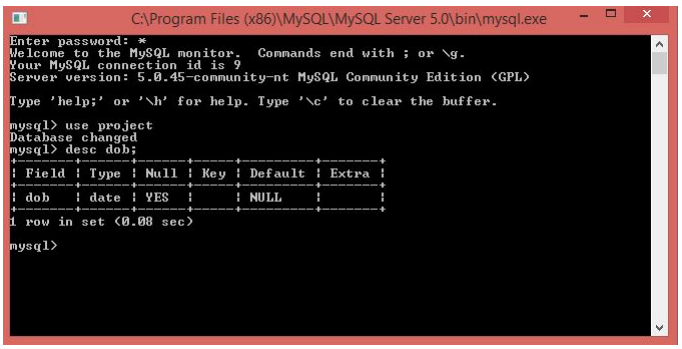

Figure 3.4: table structure of dob

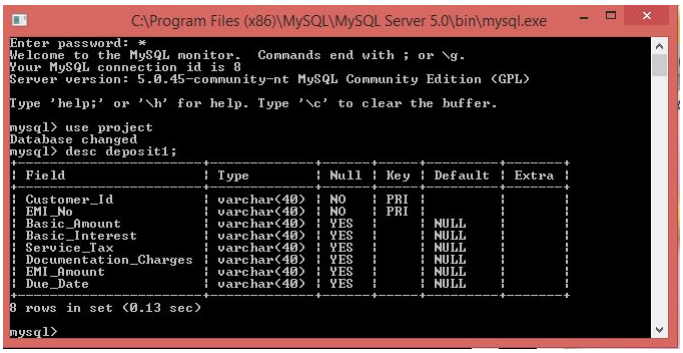

Figure 3.5: table structure of deposit1

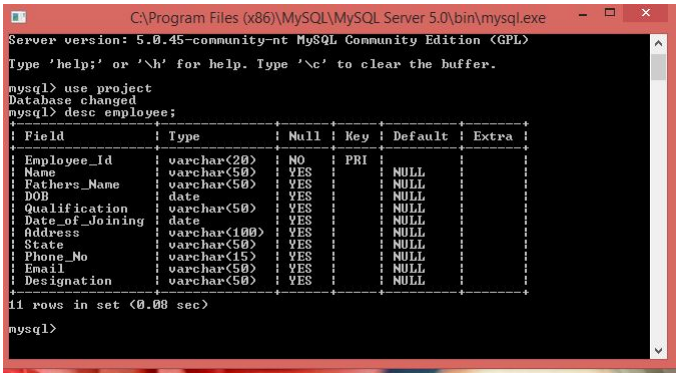

Figure 3.6: table structure of employee

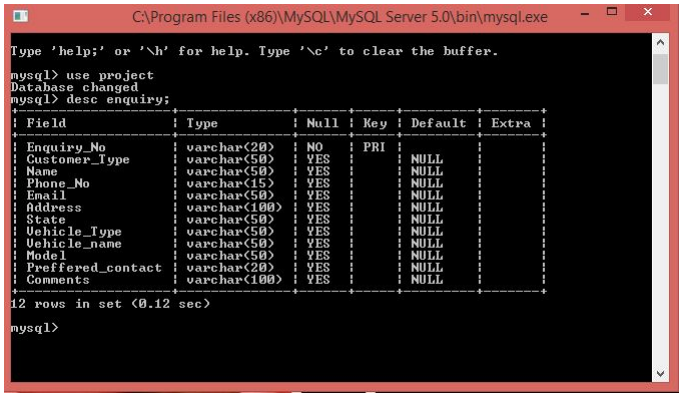

Figure 3.7: table structure of enquiry

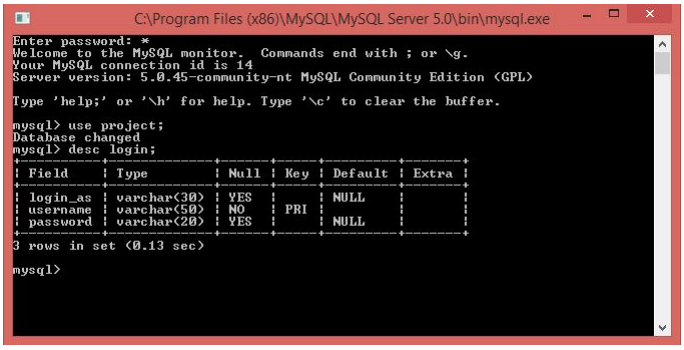

Figure 3.8: table structure of login

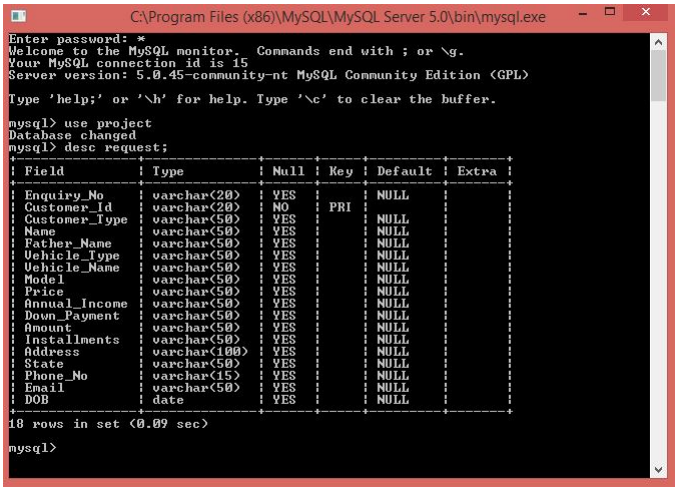

Figure 3.9: table structure of request

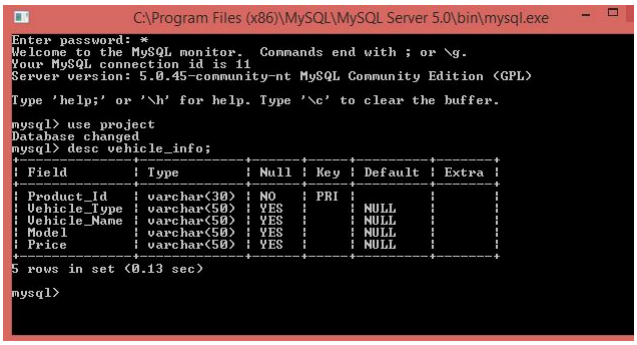

Figure 3.10: table structure of vehicleinfo

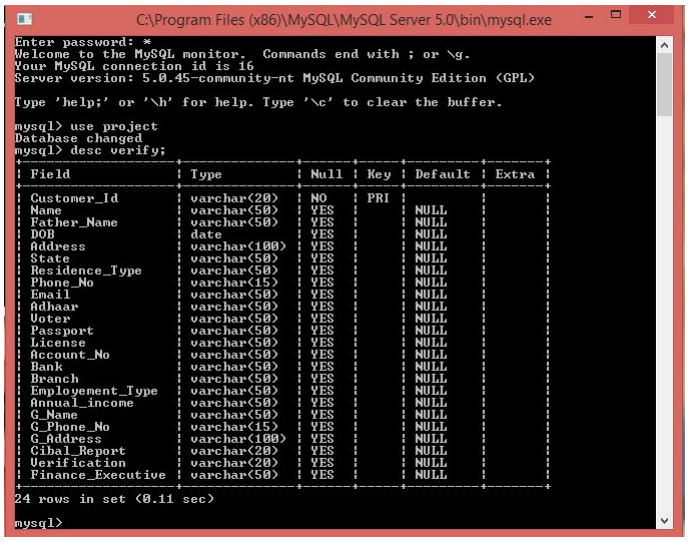

Figure 3.11: table structure of verify

CHAPTER 4

SYSTEM DESIGN

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.

CHAPTER 6

RESULTS AND DISCUSSION

6.1 SNAPSHOTS OF SYSTEM

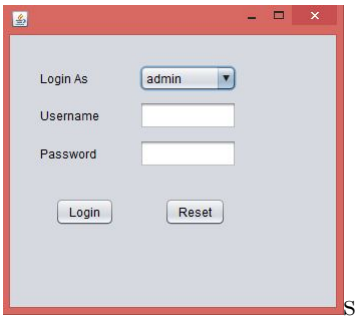

Figure 6.1: Login Details

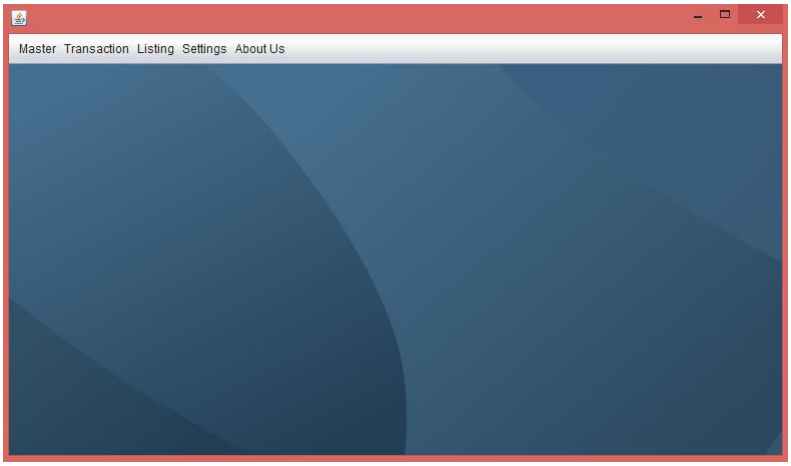

Figure 6.2: Main Screen of Project

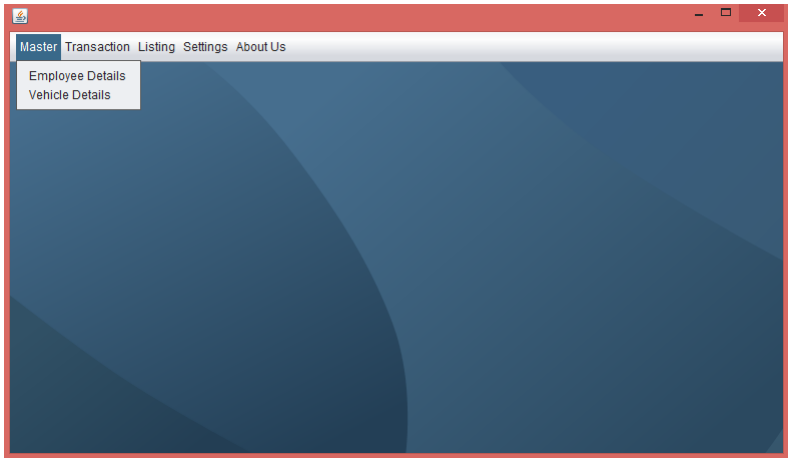

Figure 6.3: Master

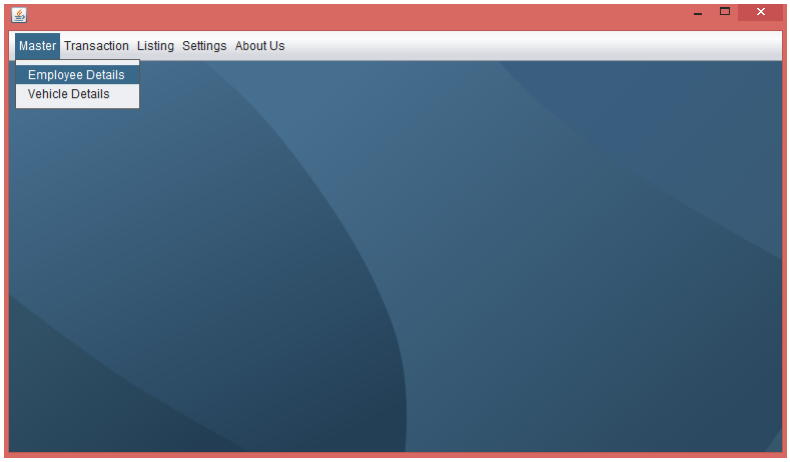

Figure 6.4: Master: Employee Details

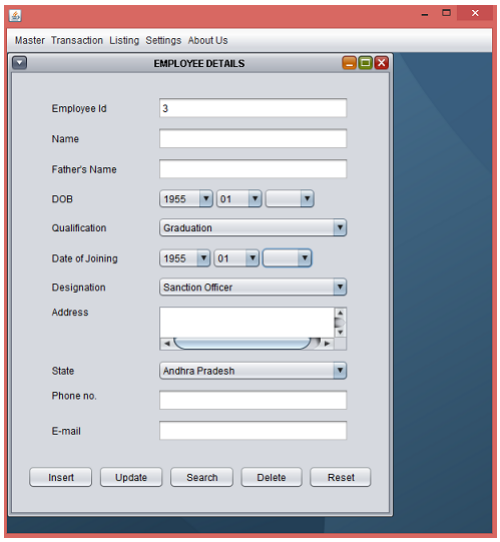

Figure 6.5: Employee Details

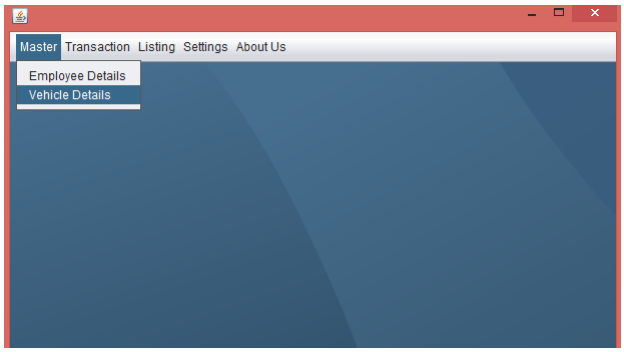

Figure 6.6: Master:Vehicle Details

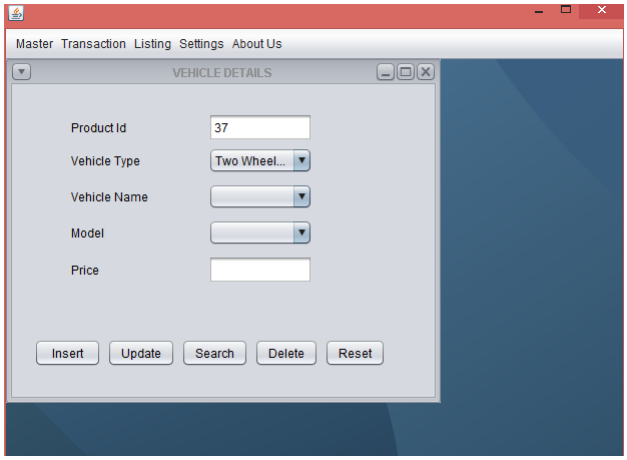

Figure 6.7: Vehicle Details

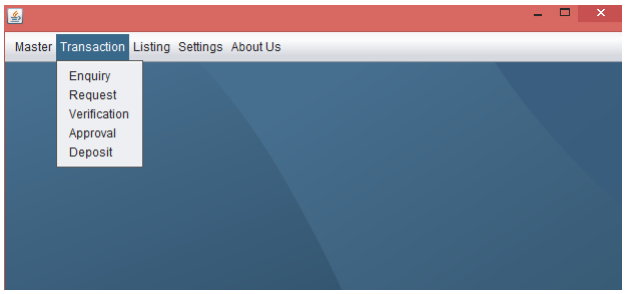

Figure 6.8: Transaction

Figure 6.9: Transaction:Enquiry

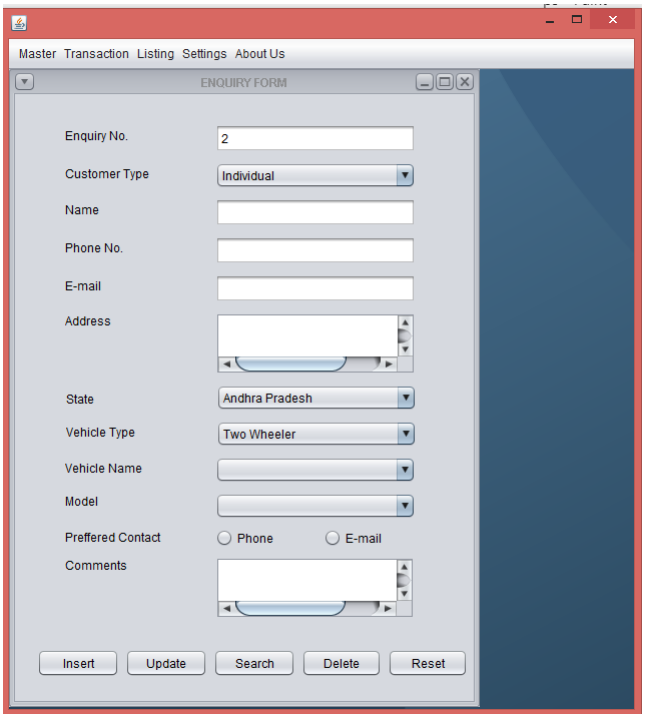

Figure 6.10: Enquiry Form

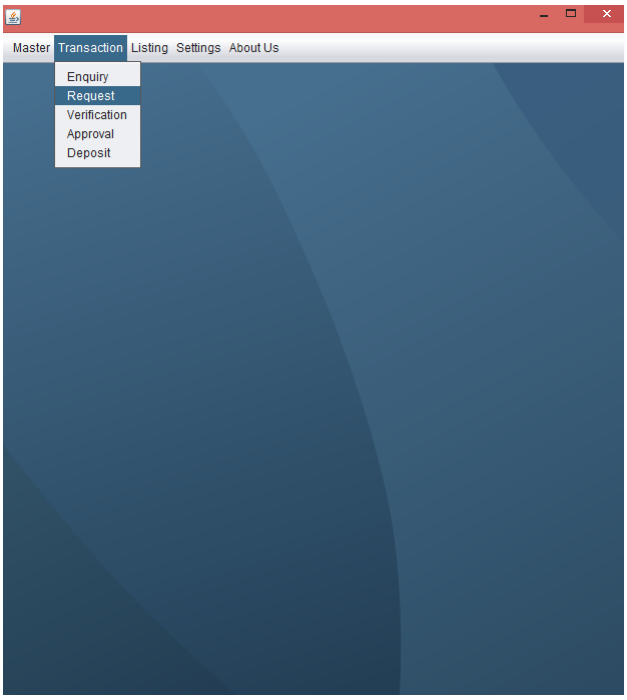

Figure 6.11: Transaction:Request

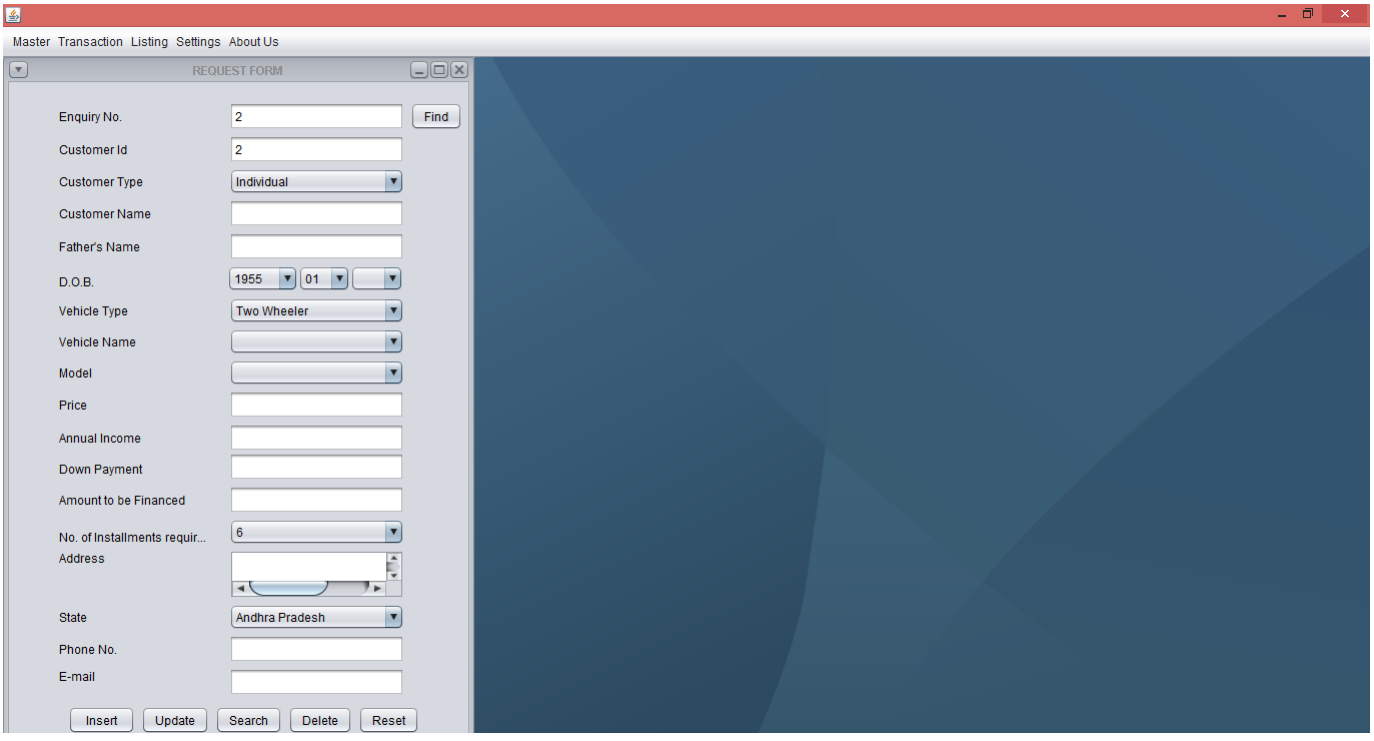

Figure 6.12: Request Form

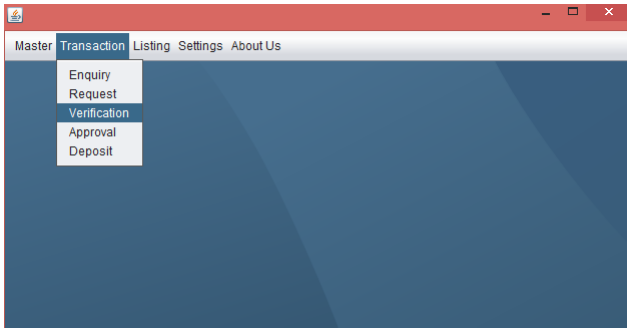

Figure 6.13: Verification

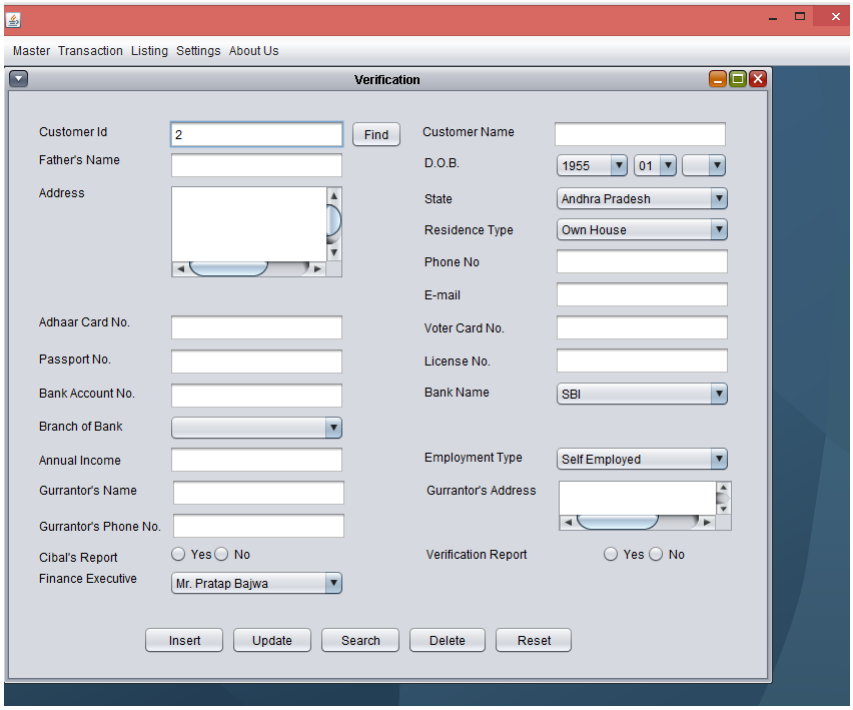

Figure 6.14: Verification Form

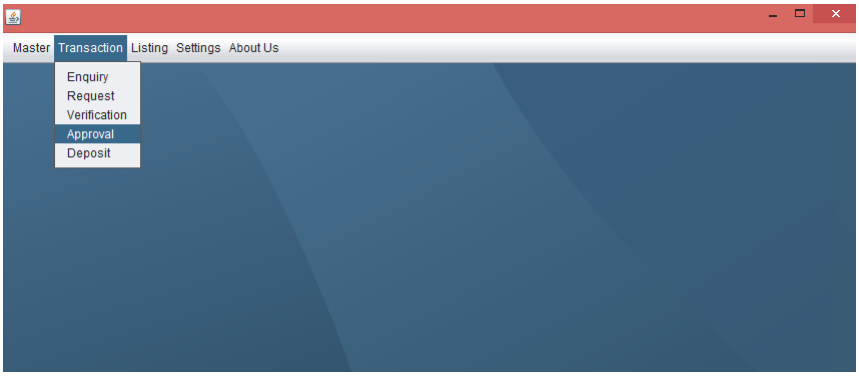

Figure 6.15: Approval

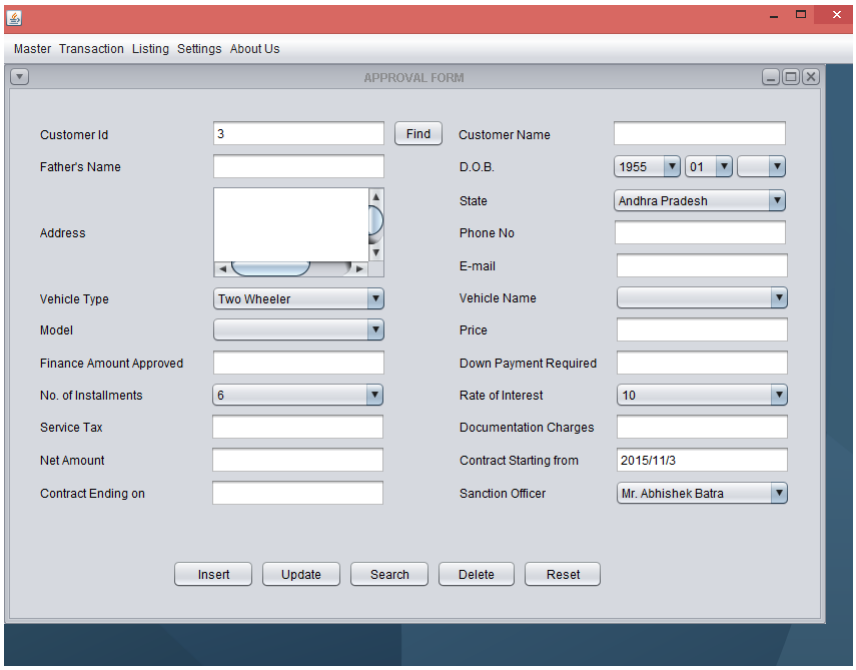

Figure 6.16: Approval Form

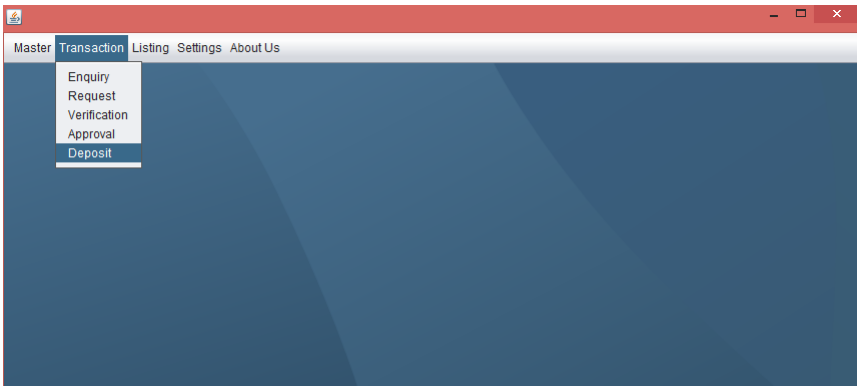

Figure 6.17: Deposit

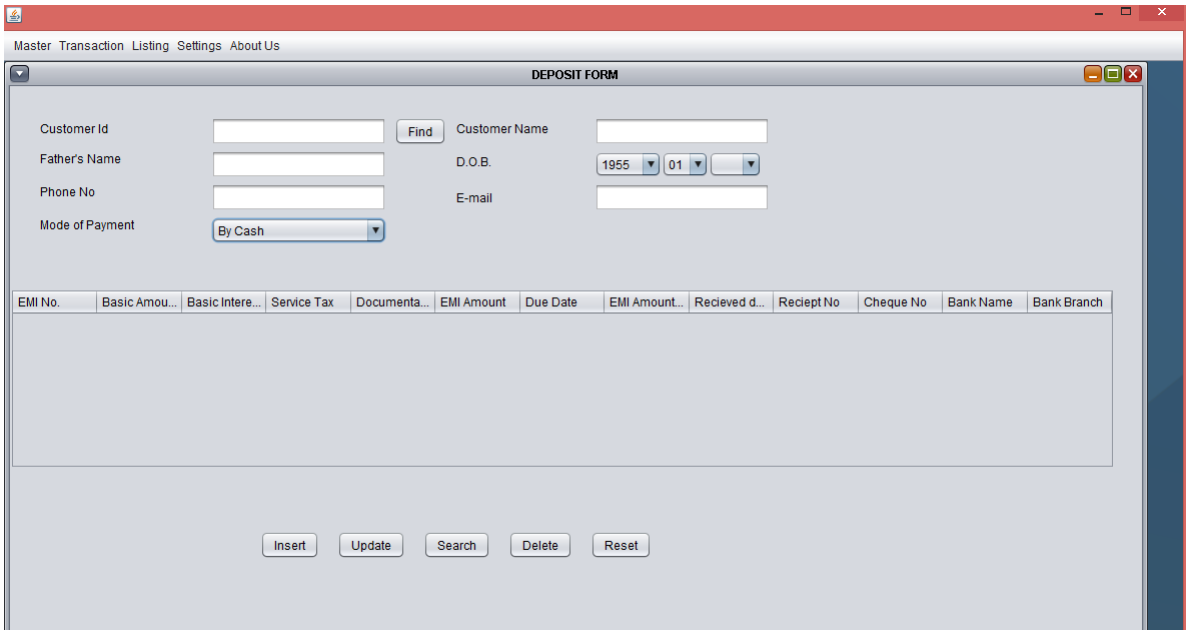

Figure 6.18: Deposit Form

Figure 6.19: Listing

Figure 6.20: Enquiry

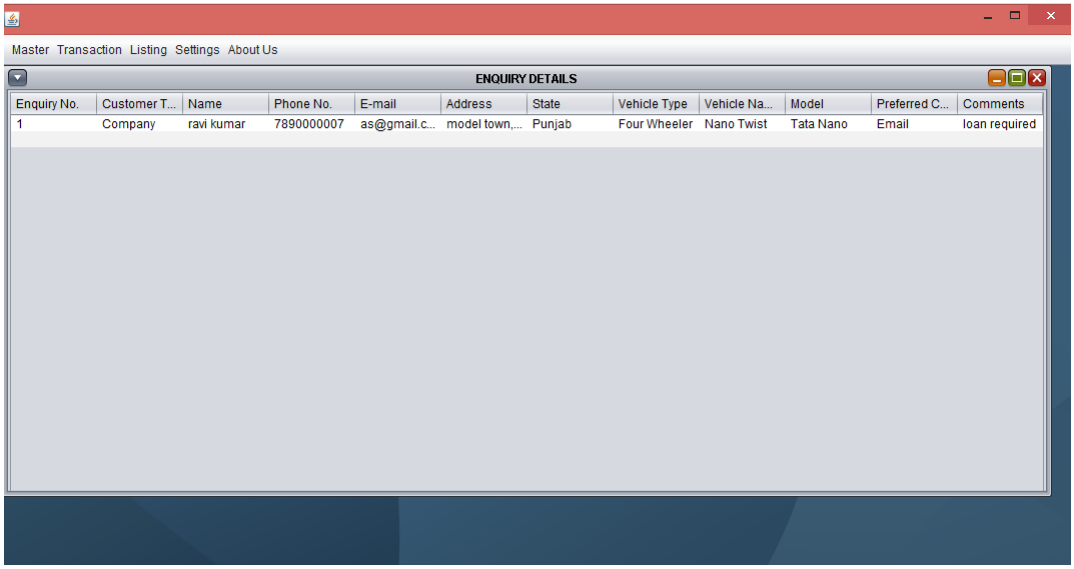

Figure 6.21: Enquiry Details

Figure 6.22: Request

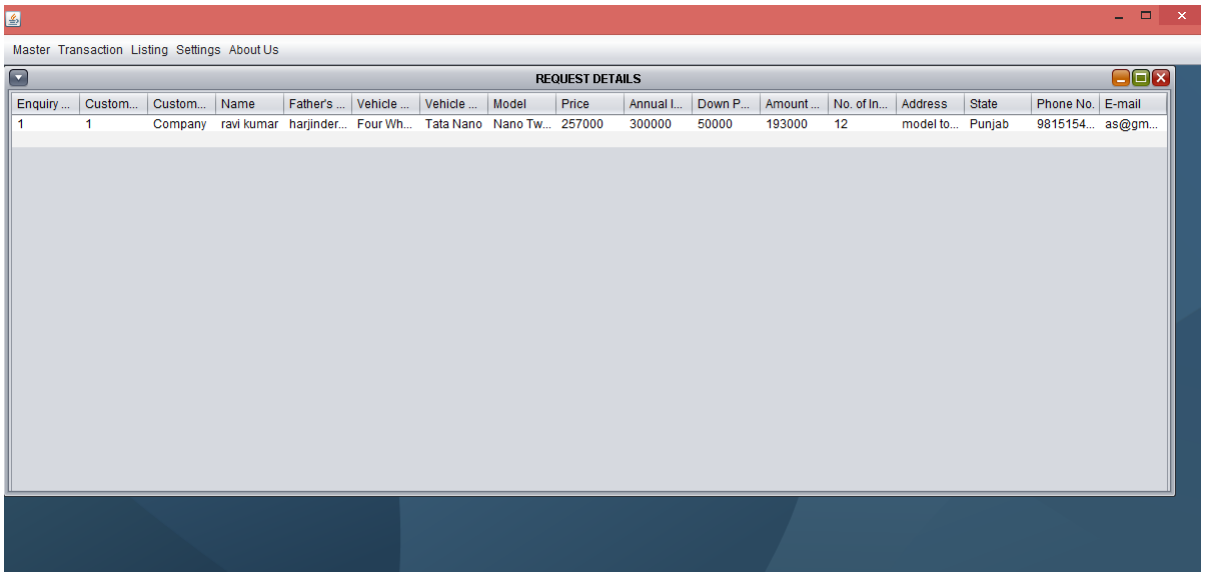

Figure 6.23: Request Details

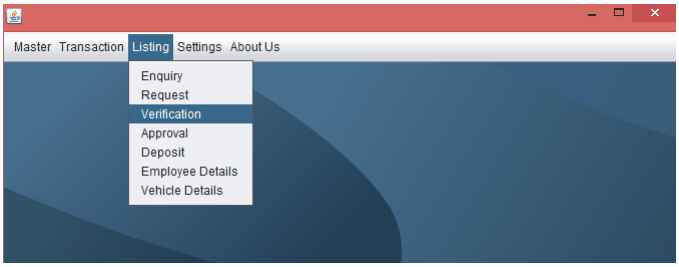

Figure 6.24: Verification

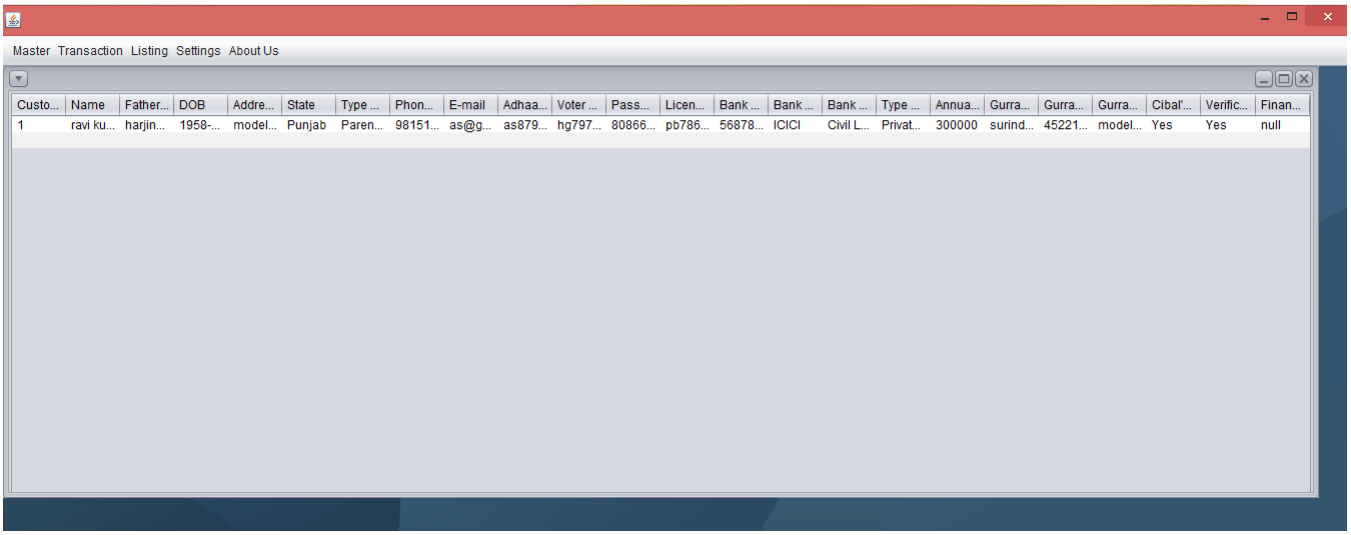

Figure 6.25: Verification

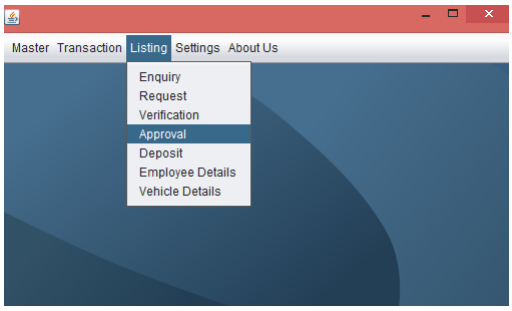

Figure 6.26: Approval

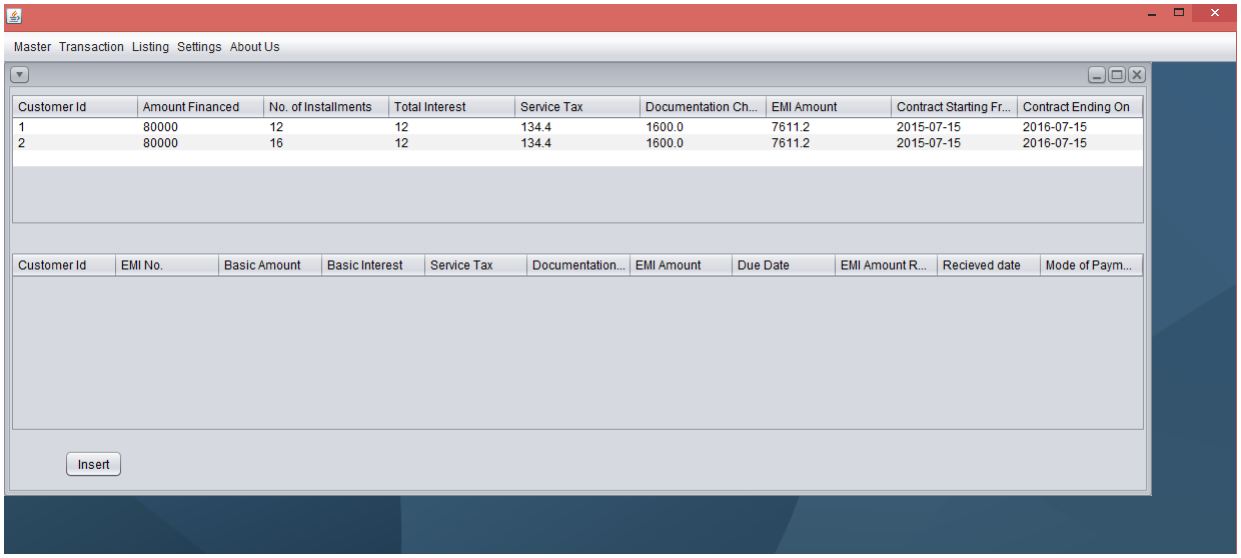

Figure 6.27: Approval

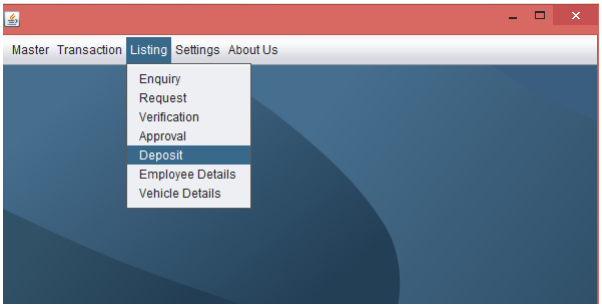

Figure 6.28: Deposit

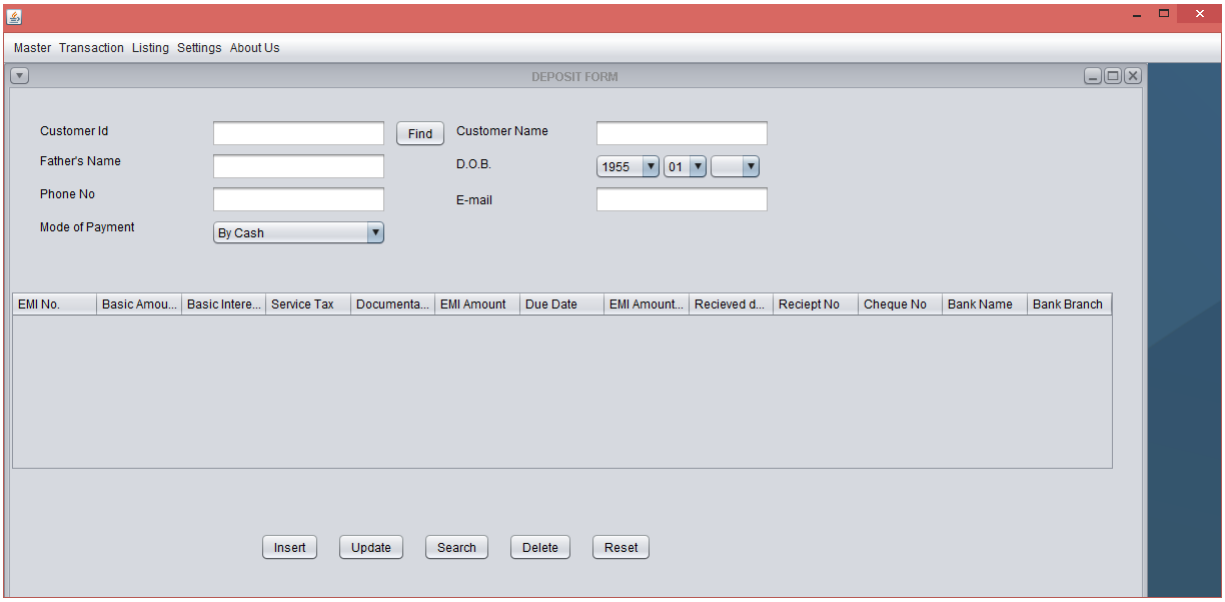

Figure 6.29: Deposit Details

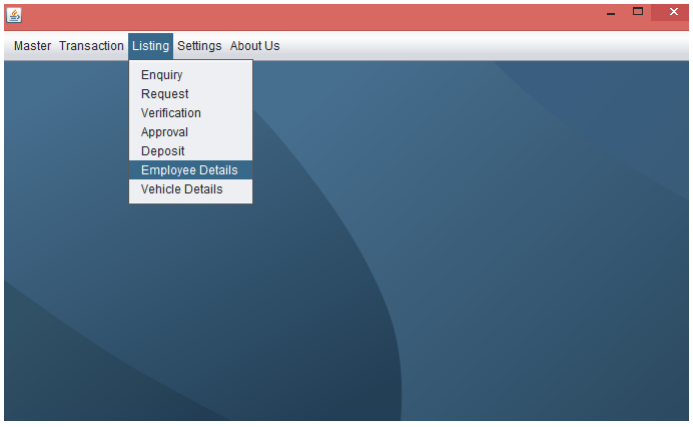

Figure 6.30: Employee Details

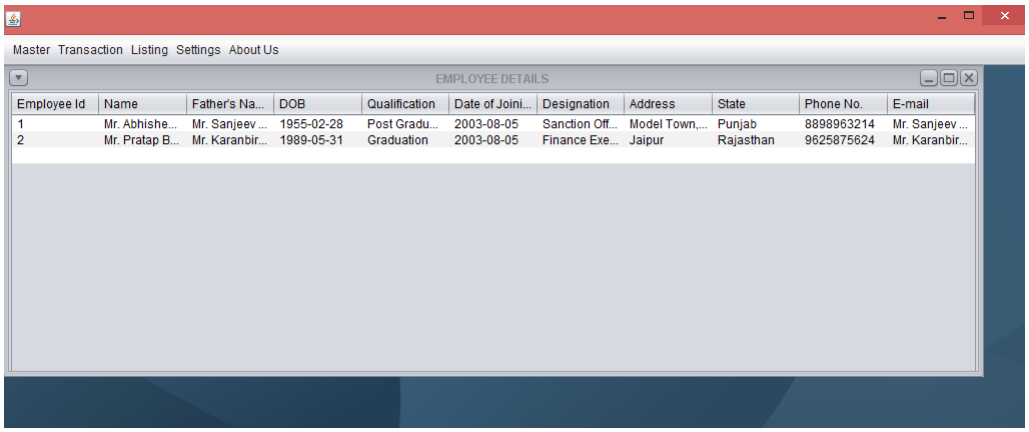

Figure 6.31: Employee Details

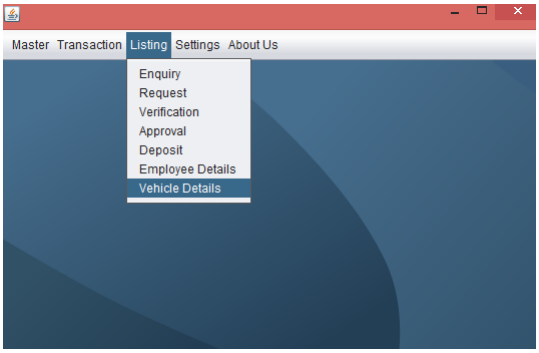

Figure 6.32: Vehicle Details

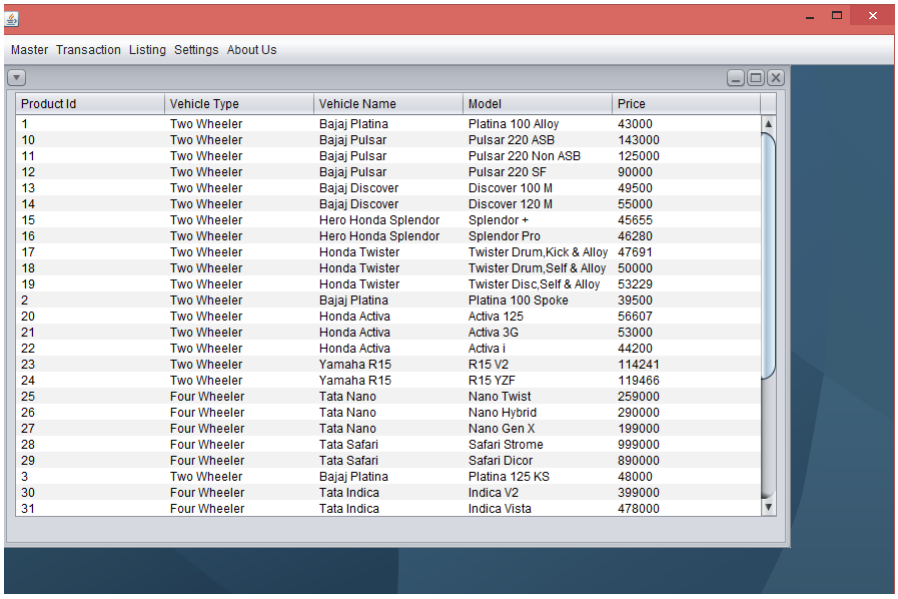

Figure 6.33: Vehicle Details

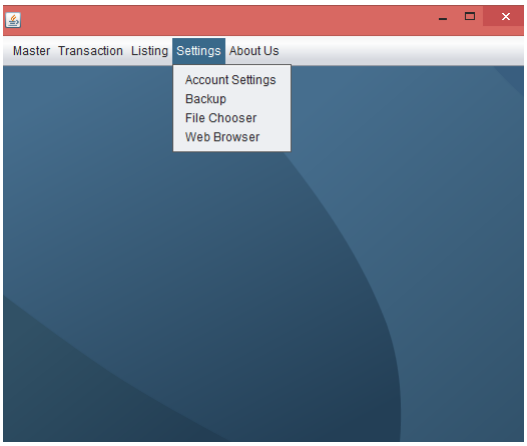

Figure 6.34: Settings

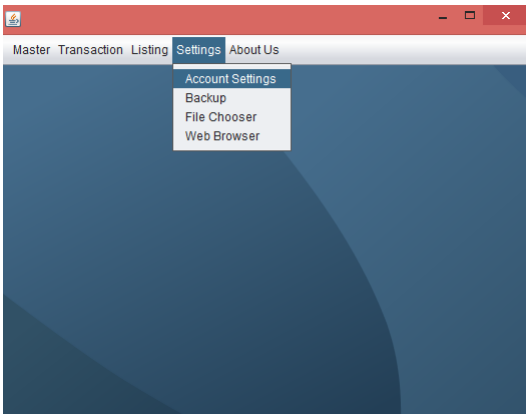

Figure 6.35: Account Settings

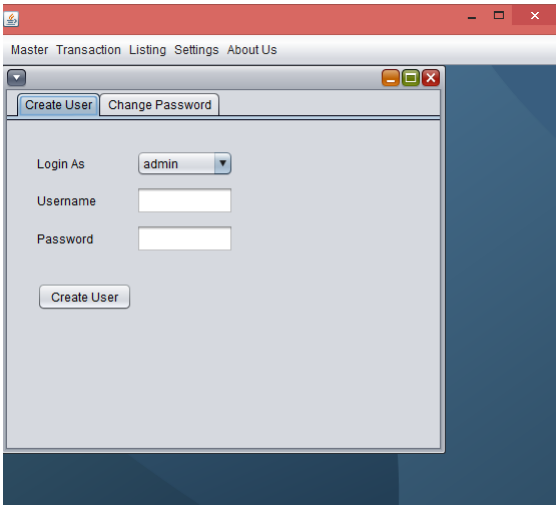

Figure 6.36: Account Settings

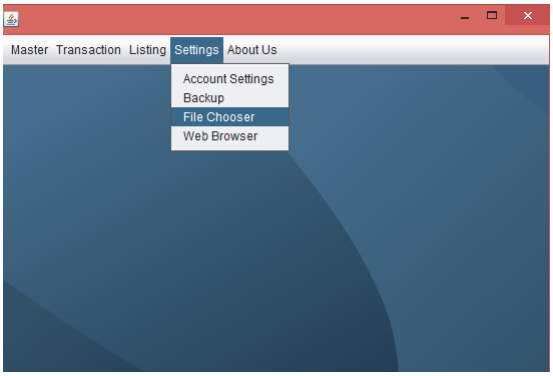

Figure 6.37: File Chooser

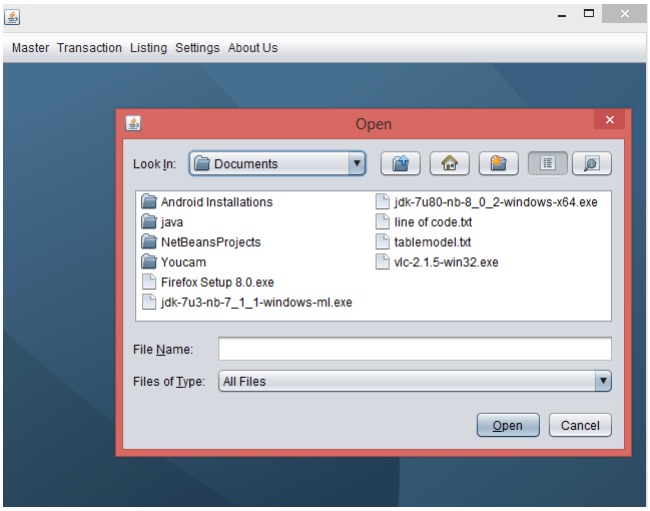

Figure 6.38: File Chooser

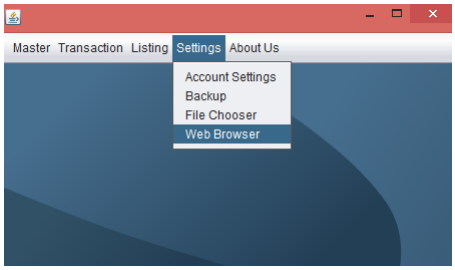

Figure 6.39: Web Browser

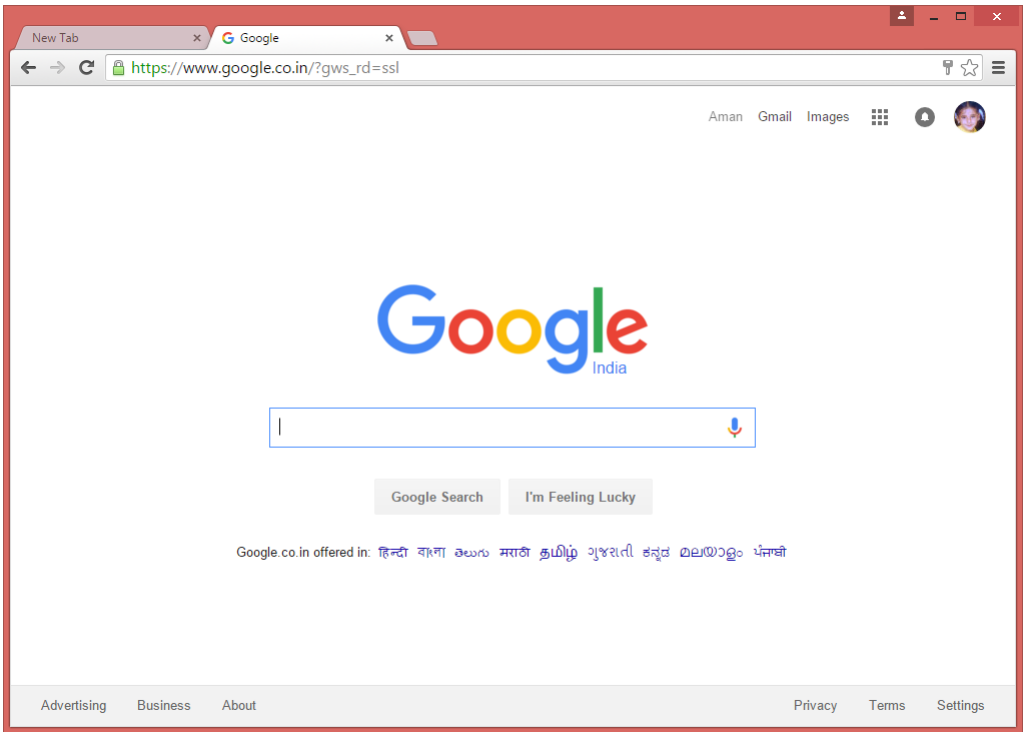

Figure 6.40: Web Browser

CHAPTER 7

CONCLUSION AND FUTURE SCOPE

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

BIBLIOGRAPHY

[1] http://www.vogella.com/tutorials/JavaIntroduction/article.html

[2] http://searchenterpriselinux.techtarget.com/definition/LAMP

[3] http://ubuntulife.net/wp-content/uploads/2012/07/Install-lamp-ubuntu.jpg

[4] Wikipedia, http://en.wikipedia.org/wiki/

[5] www.birjotsingh17.wordpress.com