**Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.**

# Project Report
# on

## Simple Chat System

## Submitted By

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## Submitted to

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## DEPARTMENT OF COMPUTER SCIENCE

# CERTIFICATE

This is to certify that, Mr. /Miss.

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of Class B.Sc. VI Semester, Computer Science has satisfactorily completed the Project on **Simple Chat System** in partial fulfilment of the requirement of Dr. B. A. M. University, Aurangabad during the academic year 2021-2022.

**Guide**

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# Acknowledgement

A Project like this taken quite a lot of time to do property. As is other case, this project owes its existence a certainly its quality to a number of people, whose name does not appearance the cover.

We extend our sincere and heartfelt thanks to our Guide and Head Department of Computer Science Mr. Inamdar Ibrahim Sir deserves credit for helping me does the project and taking care of the details that most programmers really don't think about errors and confusions are my responsibility but the quality of the project is to their credit and we can only thank him.

We would like to thanks the other faculty members also, at this occasion. Last but not least, we would like thanks to classmates for their support and encouragement they have given us during the course of our work.

Thank You.

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# SIMPLE

# CHAT

# SYSTEM

# INDEX

# PROBLEM DEFINATION AND SPECIFICATION

The simple chat system is a complete java chat project. Java programming language and Eclipse IDE are its core elements for its completion. Also, this project uses the MySQL database as backend support for storing the user information.

Many of these chat application are based on server-client architecture. That is, a centralized server is used to maintain all the information necessary to authenticate the user and relay data or connection information between users. Most of the chat applications existing today require user created profiles containing personal information before being able to chat. All this information is stored on a server.

# REQUIREMENT GATHERING AND ANALISIS

Requirement gathering is an essential part of any project and project management. Understanding fully what a project will deliver is critical to it success. This may sound like common sense, but surprising it's an area that is often given fat too little attention.

Many projects start with the barest.

**The main requirements of the project. It provides:-**

- ➤ A succinct requirements specification for management purpose.
- ➤ A statement of key objectives-à "cardinal point's" specification.
- ➤ A description of the environment in which the system will work.
- ➤ Background information and references to other relevant material.
- ➤ Information on major design constraints.

**Rules for Successful Requirements Gatherings:-**

To be successful at requirements gathering and to give your project an increased like hood of success follows these rules.

1. Don't assume you know what the customer wants, asks.
2. Involve the users from the start.
3. Define and agree the scope of the project.
4. Ensure requirements are specific, realistic and measurable.
5. Gain clarity if there is any doubt.
6. Create a clear. Concise and trough requirements and documents and share it with the customer.
7. Confirm your understanding of the requirements with the customer (play them back).
8. Avoid taking technology or solutions until the requirements are fully understood.
9. Get the requirements agreed with the stakeholders before the project starts.
10. Create a prototype if necessary to confirm or refine the customer's requirements.

# Feasibility Study

Feasibility study is made to see if the project on completion will serve the purpose of the organization for the amount of work, effort and the time that spend on it. Feasibility study lets the developer foresee the future of the project and the usefulness. A feasibility study of a system proposal is according to its workability, which is the impact on the organization, ability to meet their user needs and effective use of resources.

Thus when a new application is proposed it normally goes through a feasibility study before it is approved for development. The document provide feasibility of the project that is being designed and lists various areas that were considered very carefully during the feasibility study of this project such as Technical, Economic and Operational feasibilities. The following are its features:-

## A. TECHNICAL FEASIBILITY:-

The system must be evaluated from the technical point of view first. The assessment of this feasibility must be based on an outline design of the system requirement in the terms of input, output, programs and procedures. Having identified an outline system, the investigation must go on to suggest the type of equipment, required method developing the system, of running the system once it has been designed.

Technical issues raised during the investigation are:

Does the existing technology sufficient for the suggested one?

Can the system expend if developed?

The project should be developed such that the necessary functions, and performance are achieved within the constraints. The Project is developed within latest technology. Through the technology may become obsolete

after some of time, due to the fact that never version of same software supports older versions, the system may still be used. So there are minimal constraints involved with this project. The system has been developed using java and project is technically feasible for development.

## B. ECONOMIC FEASIBILITY:-

The developing system must be justified by cost and benefit. Criteria to ensure that effort is concentrated on project, which will give best, return at the earliest. One of the factors, which affect the development of a new system, is the cost it would require.

The following are some of the important developing questioned asked during preliminary investigation.

- ➢ The cost conducts a full system investigation.
- ➢ The cost of the hardware software.
- ➢ The benefits in the form of reduce costs fewer costly errors.

Since the system is developed as part of project work, there is no manual to spend for the proposed system. Also all the resources are already available, it Give an indication of the system it economically possible for development.

## Introduction to Software Tools:-

Software is collection of programs to solve the tedious problems means the set of instructions. There are two types of software:

1. System software(Database (Oracle))

2. Application software(Eclipse)

System software is the software, which required for the booting, maintaining and managing the information in the computer ex-MS DOS, Windows 97,98, NT, BIVS 4.0, and NIX etc.

Application software is these that solve the tedious U problem like arithmetic calculation financial DTP etc. Oracle.

There are two types of development generic software. Their standard alone system which are produced by development and solved on the open

market to any customer who is able to buy them are the generic product.

Customize product are the system which are commission by a particular customer. The software is developed specifically for the customer by some contract. Software engineering is the technology discipline concern with systematic production and maintenance of software products that are developed on time with in cost estimates. Software engineering a new technological discipline distinct from other engineering is based on computer science, management science, Economics, and communication skills & Engineering approach to problem solving. Software engineering required both technical skills. Management science provides the information for software management.

## Design

### A. DFD (Data Flow Diagram):-

Register New User

Upload Photo

Login Existing User

Simple Chat

Public Chat

Add Friends

Private Chat
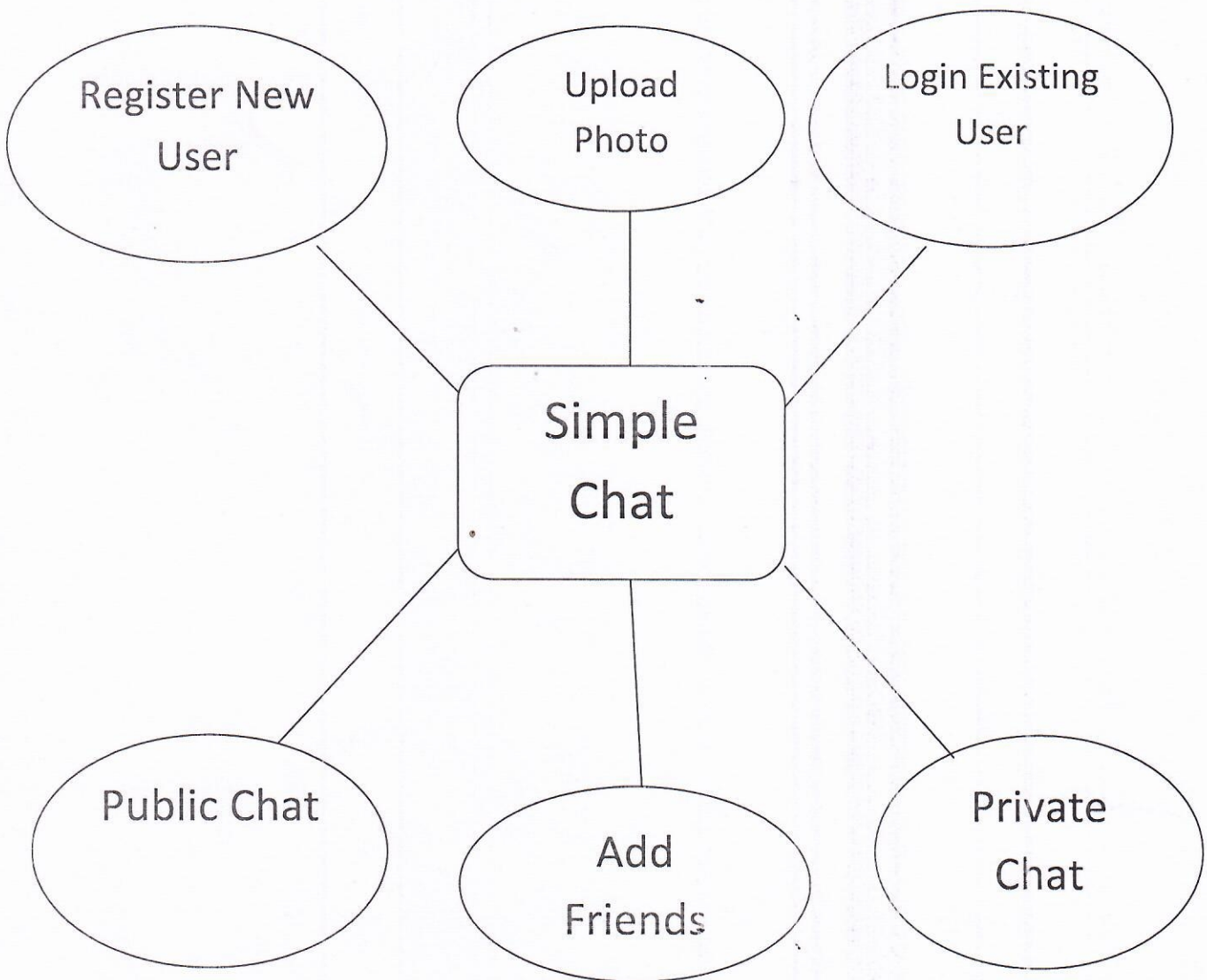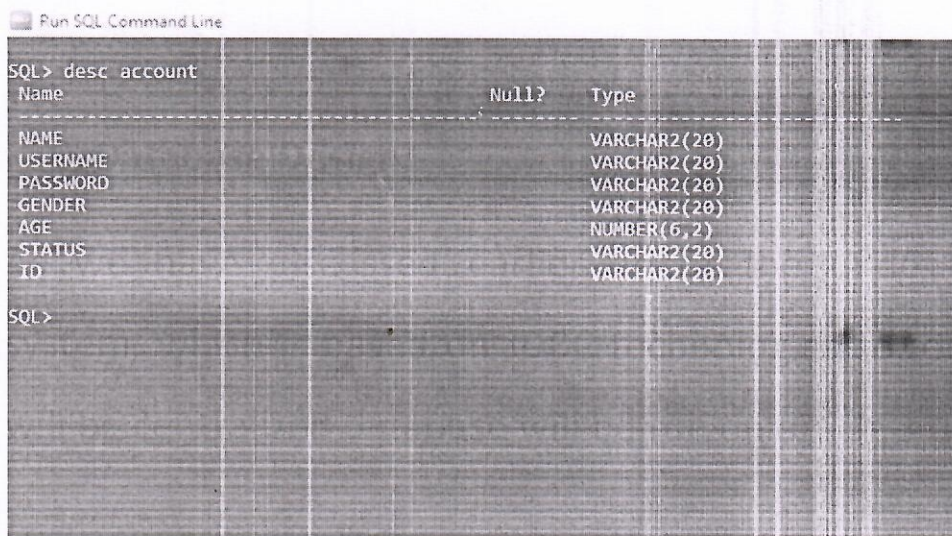
# B. ER(Entity Relationship) Diagram:-
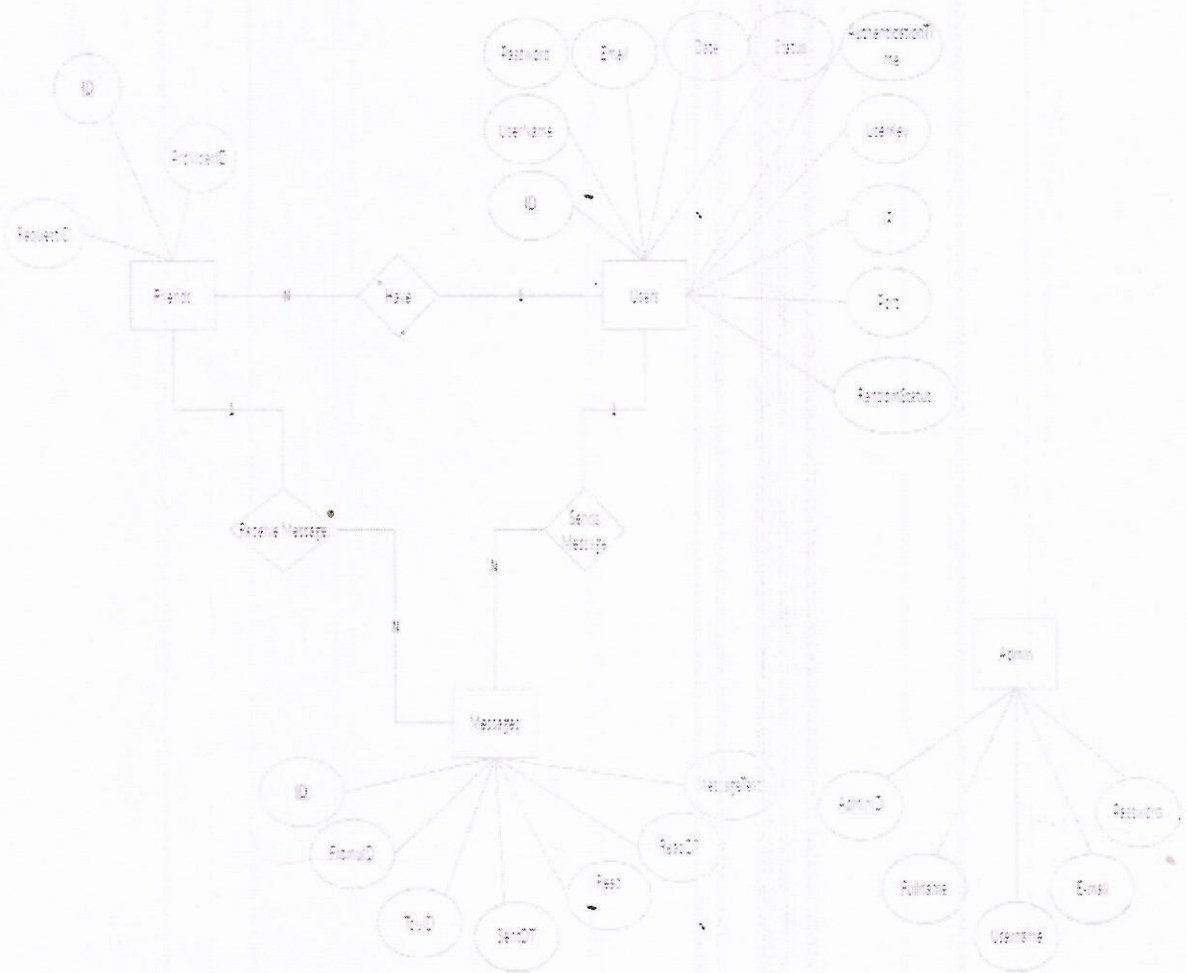
## C. Database Design:-

As we have discussed earlier about the under developing system, which is based on JDBC technologies so, out database will be centralized database will be run on oracle 11g.

## 1. User Account/Login User Table:-

```
Run SQL Command Line

SQL> desc account
 Name                              Null?    Type
 NAME                                       VARCHAR2(20)
 USERNAME                                   VARCHAR2(20)
 PASSWORD                                   VARCHAR2(20)
 GENDER                                     VARCHAR2(20)
 AGE                                        NUMBER(6,2)
 STATUS                                     VARCHAR2(20)
 ID                                         VARCHAR2(20)

SQL>
```

## 2. Private Chat Table:-

```
Run SQL Command Line

SQL> desc private_chat
 Name                                      Null?    Type
 ---------------------------------------- -------- --------------
 MSG_ID                                             VARCHAR2(20)
 MESSAGE                                            VARCHAR2(40)
 SENDER                                             VARCHAR2(20)
 RECEPIENT                                          VARCHAR2(20)
 STATUS                                             VARCHAR2(20)

SQL>
```

## 3. Public Chat Table:-

```
Run SQL Command Line

SQL> desc public_chat
 Name                                      Null?    Type
 ---------------------------------------- -------- --------------
 MESSAGE                                            VARCHAR2(20)
 USERNAME                                           VARCHAR2(20)

SQL>
```

## 4. Friends Table:-

```
Run SQL Command Line

SQL> desc friends
 Name                                    Null?    Type
 --------------------------------------- -------- ----------------
 YOU                                              VARCHAR2(20)
 YOURFRIEND                                       VARCHAR2(20)
 STATUS                                           VARCHAR2(20)

SQL>
```

## 5. Request Table:-

```
Run SQL Command Line

SQL> desc request
 Name                                    Null?    Type
 --------------------------------------- -------- ----------------
 REQUEST                                          VARCHAR2(20)
 REQUESTSENDER                                    VARCHAR2(20)
 REQUESTRECEIVER                                  VARCHAR2(20)

SQL>
```

# D. Form Design:-

## 1. Register New User:

## 2. Login Existing User:



```
} catch (ClassNotFoundException ex) {
    java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Leve
} catch (InstantiationException ex) {
    java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Leve
} catch (IllegalAccessException er) {
    java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Leve
}
```

Username
amit02

Password
salunke8

Login

Sign Up?

Message
Login Successfully
OK

```
private javax.swing.JPanel jPanel2;
private javax.swing.JPanel jPanel3;
private javax.swing.JPanel jPanel4;
private javax.swing.JButton login_btn;
private javax.swing.JTextField pass_tf;
private javax.swing.JLabel signUp_lb;
private javax.swing.JTextField user_tf;
// End of variables declaration//GEN-END:variables
```

## 3. Home Page:
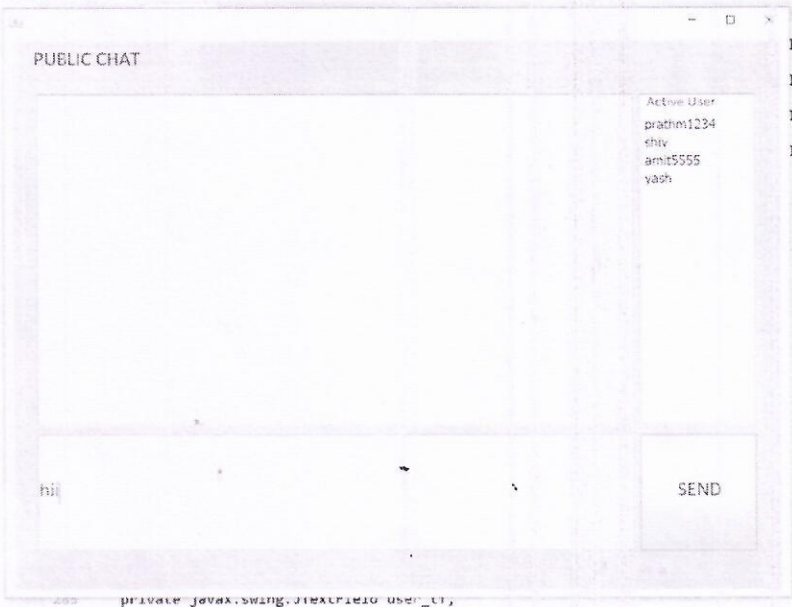
# 4. Add Friend:



```
50    jPanel5 = new javax.swing.JPanel();
51    age_lb = new javax.swing.JLabel();
52    img_lb = new javax.swing.JLabel();
53    jLabel8 = new javax.swing.JLabel();
54    jLabel9 = new javax.swing.JLabel();
55    nick_lb = new javax.swing.JLabel();
56    add_btn
57
58    setDefau                              ante.EXIT_ON_CLOSE);
59    addWindo                              er() {
60      publ                               wEvent evt) {
61
62      }
63    });
64
65    jPanel4.                             , 255));
66
67    jPanel3.                             , 255));
68
69    jPanel2.                             , 250));
70
71    jPanel1.                             , 255));
72
73    jPanel5.                             , 255));
74    jPanel5.                             tetLineBorder(new java.awt.Color(2
75
76    age_lb.setFont(new java.awt.Font("Tahoma", 0, 14));  // NOI18N
77    age_lb.setText("21");
78
79    img_lb.setIcon(new javax.swing.ImageIcon("G:\\orathweth project\\Simple_chat_Syst
80 //   img_lb.setIcon(new javax.swing.ImageIcon("C:\\Users\\user\\Documents\\NetBeansPr
81    img_lb.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(0,
82
83    jLabel8.setFont(new java.awt.Font("Tahoma", 0, 18));  // NOI18N
```

```
258    } catch (ClassNotFoundException ex) {
259      java.util.logging.Logger.getLogger(Info.class.getName()).log(java.util.logging.Level
260    } catch (InstantiationException ex) {
261      java.util.logging.Logger.getLogger(Info.class.getName()).log(java.util.logging.Level
262    } catch (IllegalAccessException ex) {
263      java.util.logging.Logger.getLogger(Info.class.getName()).log(java.util.logging.Level
264    } catch (                          tion ex) {
265      java                            s.getName()).log(java.util.logging.Level
266    }
267    //</edit
268
269    /* Creat
270    java.awt
271      publ
272
273      }
274    });
275    }
276
277    // Variable                        variables
278    private java:
279    private java.
280    private java.
281    private java.
282    private java.
283    private javax.swing.JPanel jPanel1;
284    private javax.swing.JPanel jPanel2;
285    private javax.swing.JPanel jPanel3;
286    private javax.swing.JPanel jPanel4;
287    private javax.swing.JPanel jPanel5;
288    private javax.swing.JLabel nick_lb;
289    // End of variables declaration//GEN-END:variables
290 }
291
```

# 5. Friends/Friend Requests:

# 6. Inbox:



```
        } catch (ClassNotFoundException ex) {
            java.                                   ss.getName()).log(java.util.logging.Leve
        } catch (                                   ss.getName()).log(java.util.logging.Leve
            java.                                    ss.getName()).log(java.util.logging.Leve
        } catch (                                   ss.getName()).log(java.util.logging.Leve
            java.                                    ss.getName()).log(java.util.logging.Leve
        } catch (                            tion e>) {
            java.                                   ss.getName()).log(java.util.logging.Leve
        }
        //</edito

        /* Create
        java.awt.
            publi
                n


            }
        });

    }

    // Variables
    private javax
    private javax
    private javax
    private javax
    private javax
    private javax
    private javax
    private javax.swing.JLabel signUp_lb;
    private javax.swing.JTextField user_tf;
    // End of variables declaration//GEN-END:variables
```

# 7. Public Chat:



PUBLIC CHAT

Active User
prathm1234
shiv
amit5555
yash

hi|

SEND

## 8. Logout:

# Report

It has been a great pleasure for me to work on this exciting and challenging project. Our project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the school. The objective of software planning is to provide a frame work that enables the manager to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

**At the end it is concluded that we have made effort on following points...**

- A description of the background and context of the project and its relation to work already done in the area.
- Made statement of the aims and objectives of the project.
- The description of Purpose, Scope, and applicability.
- We define the problem on which we are working in the project.

- We describe the requirement Specifications of the system and the actions that can be done on these things.
- We understand the problem domain and produce a model of the system, which describes operations that can be performed on the system.
- We included features and operations in detail, including screen layouts.
- We designed user interface and security issues related to system.
- Finally the system is implemented and tested according to test cases.

# Software & Hardware requirements

## 1. Hardware Requirements:

- System with Intel Dual Core.
- 512 MB RAM or above.
- 40 GB Hard Disk or above.

## 2. Software Requirements:

- Operating System: Windows 7 (Or latest)
- Java.
- Back End: Oracle.

# References

1. www.Tutorialpoint.com

2. www.JavaTpoint.com

3. www.w3schools.com

4. www.codecademy.com

5. www.freecodecamp.com