

# **DBMS MINI PROJECT REPORT**

## **ON**

## **“TELCOMMUNICATION MANAGEMENT SYSTEM”**

**Submitted By:**

**Harpal Kaur Dhindsa**

**Anjali Trimukhe**

**Rashi Tugaon**

**V Rashmi Ramkumar**

**Branch : T. E. Computer (2018-2019)**

**Guided By: Prof. Ashwini Taware**

**Department of Computer Engineering  
K. K. Wagh Institute of Engineering Education & Research  
Hirabai Haridas Vidyanagari, Amrutdham, Panchavati,  
Nashik – 422 003.**

**Affiliated to Savitribai Phule Pune University**

**K. K. WAGH INSTITUTE OF ENGINEERING  
EDUCATION & RESEARCH  
NASIK.**

# ***CERTIFICATE***

This is to certify that

**Harpal Kaur Dhindsa  
Anjali Trimukhe  
Rashi Tugaon  
V. Rashmi Ramkumar**

Has Successfully completed

DBMS Mini Project on

**“Telecommunication Management System”**

Towards the Partial Fulfilment Of Bachelor's

Degree In Computer Engineering

Of Savitribai Phule Pune University

During Academic Year 2018 – 2019

**Prof.Ashwini Taware**

[Mini Project Guide]

**Prof.Dr. S. S.Sane**

[H.O.D]

**Prof. Dr. K. N. Nandurkar**

[Principal]

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## **ABSTRACT**

The mini project **Telecommunication Management System** is based on the automation of the Telecom System and process the all activities through on line. Here the main advantage of this system is to access this database globally for users. The customers see their connection status at any branch and also know their details at any branch. Here dynamically generated the reports like previous details of the customer. The main advantages of this system are to reduce the time and also manpower. These two factors are very important to improve any organization. This system mainly concentration on these factors.

## **Keywords:**

Phone number, information storage, data.

# **CHAPTER 1**

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## **Introduction**

The purpose of the project is to present the requirement of the Computerization of Telecommunication Management System. It does almost every work which is related to automatic telephone billing connection system via- new connection, customer record modification, viewing customer records and is developed as per seeing the increasing requirement to speed up the work and incorporate a new work culture. Thus, a new software has been proposed to reduce manual work, improving work efficiency, saving time and to provide greater flexibility and user-friendliness as the system previously followed was totally manual one with lots of errors.

The system enables a good user interface for the user to maintain the records. It will also provide a permanent database and this will help to store the customer and admin identity information in an error free and non-redundant way along with better option for maintaining the records.

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## **CHAPTER 2**

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### **Scope**

The proposed software product is the Telecommunication Management System. The system will be used to get the information from the customers and then storing that data for future usage. The current system in use is a paper-based system and manually done. It is too slow and cannot provide updated lists of customers within a reasonable timeframe. The intentions of the system are to reduce over-time pay and increase the number of customers that can be treated accurately. Requirements statements in this document are both functional and non-functional.

## CHAPTER 3

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### Requirement Analysis

#### Non-functional requirements:

**1. Performance Requirements:**

The System requires less memory.

**2. Safety Requirements:**

System must process data safely and data submitted as input will not be damage or corrupt.

**3. Security Requirements:**

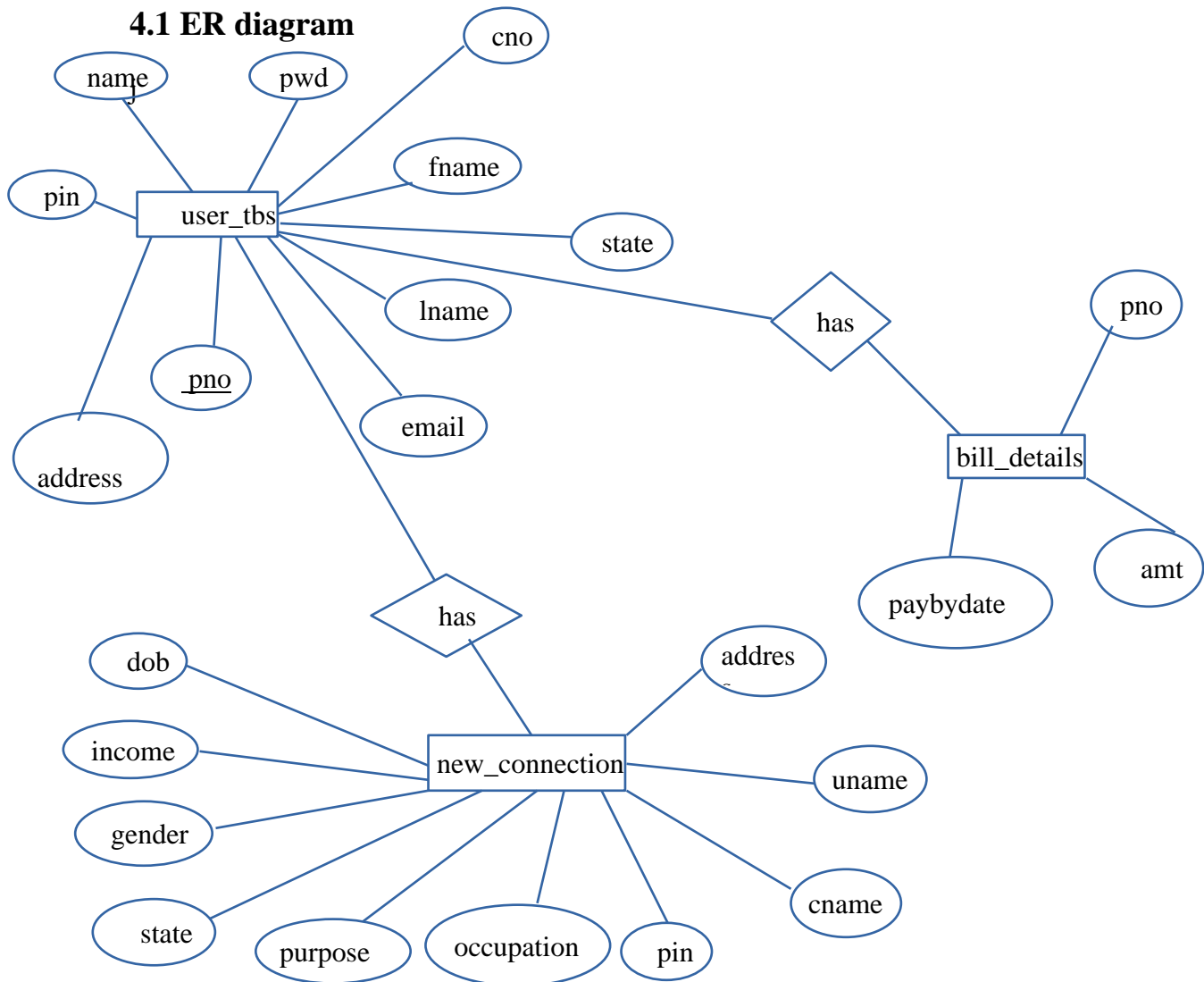
Authentication is necessary to access the system. Database authentication is essential part of the system.

## CHAPTER 4

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### Data modelling

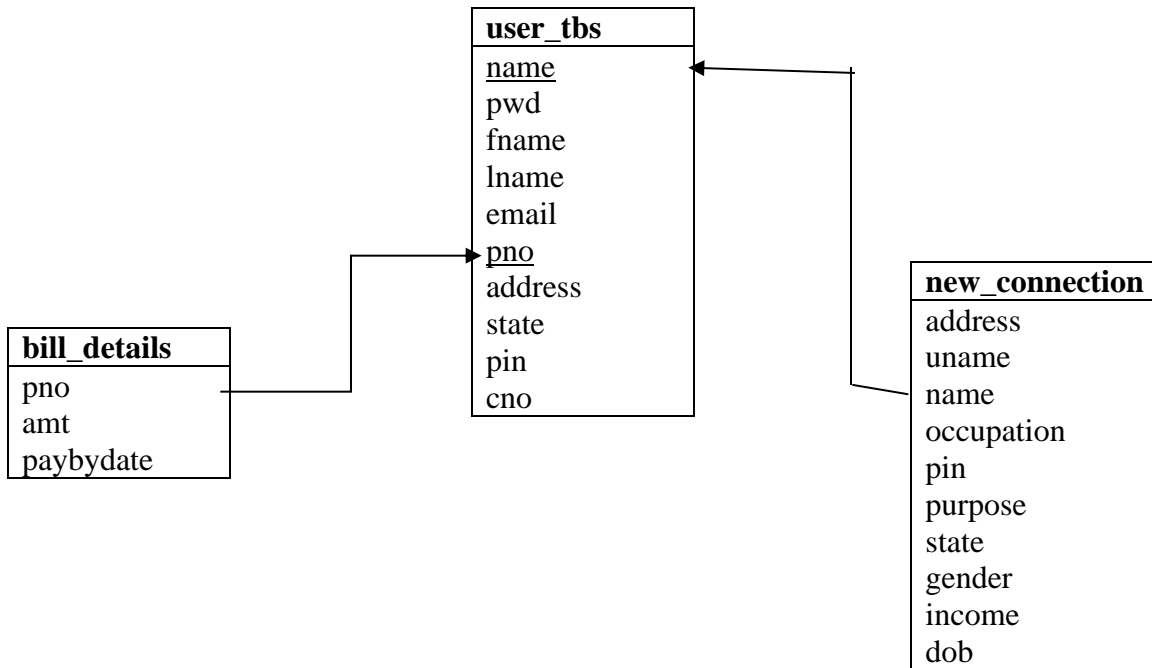
#### 4.1 ER diagram



The ER diagram contains three tables that are User table, Connection table, Bill details table. In user table, attributes are name, password, first name, last name, state, pin, address. Customer and admin have login which contains user name and password. In new connection table we are making a new connection for the customer and the admin gives the bill amount to the customer.



## 4.2 Relational model



This is relational model of project which contains three tables that are User, new connection and bill details. Pno of user table is primary key which is foreign key for other tables and this relation connects all the tables.

## **CHAPTER 5**

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### **Software requirements**

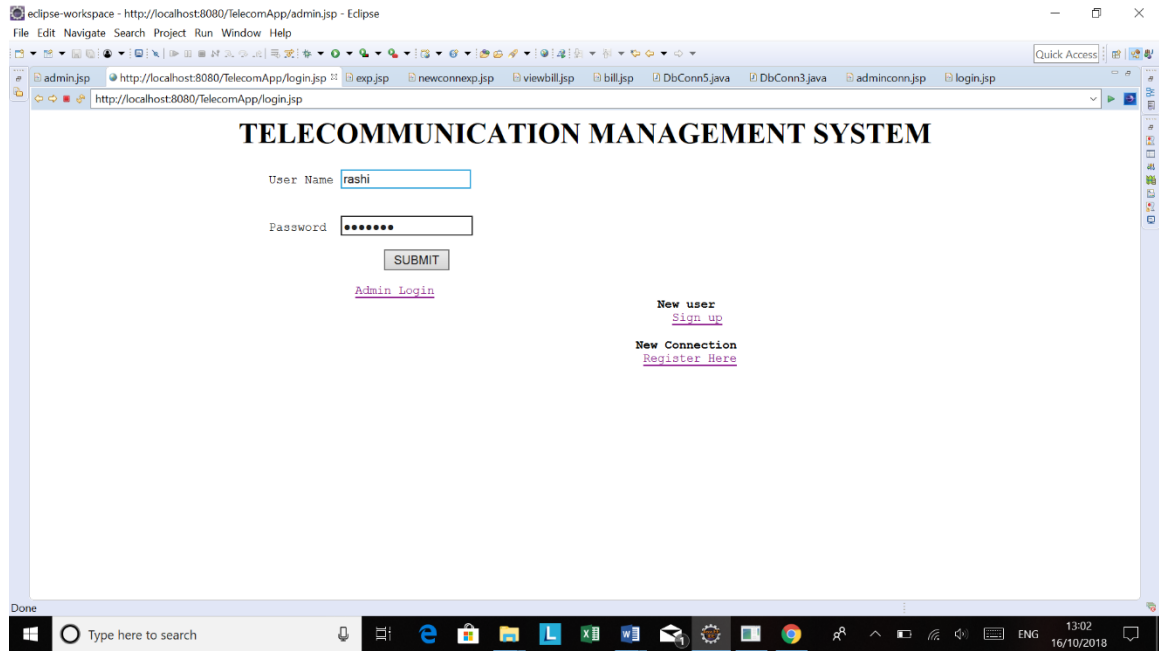
#### **SOFTWARE REQUIREMENT FOR DEVELOPMENT:**

- |                    |   |                  |
|--------------------|---|------------------|
| ➤ Operating System | : | Windows 7/8.1/10 |
| ➤ Front end        | : | Advance Java     |
| ➤ Back end         | : | MySQL            |
| ➤ IDE              | : | Eclipse Oxygen   |

## CHAPTER 6

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### GUI



This is the home window of our project. After inserting username and password customer and admin will be able to login only if username and password are registered. If not registered, customer can register by clicking Register here button.

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The screenshot shows a web browser window with the title 'eclipse-workspace - http://localhost:8080/TelecomApp/admin.jsp - Eclipse'. The browser's address bar shows 'http://localhost:8080/TelecomApp/New\_connection.jsp'. The page content is titled 'NEW CONNECTION REGISTRATION' and features a pink background. A 'LOGOUT' link is in the top right. The form includes the following fields: 'User Name' (Sheetal), 'Name' (Sheetal), 'Occupation' (Marketing), 'Gender' (Male, Female with Female selected), 'Purpose' (Individual), 'Annual Income' (240000), 'Date Of Birth' (11/04/1994), 'Address' (Nashik), 'State' (Maharashtra), and 'Pin' (422009). An 'INSERT' button is at the bottom. A 'Home' link is in the bottom right. The Windows taskbar at the bottom shows the time as 12:58 on 16/10/2018.

NEW CONNECTION REGISTRATION

[LOGOUT](#)

User Name: Sheetal

Name: Sheetal

Occupation: Marketing

Gender: ☐ Male ☒ Female

Purpose: Individual

Annual Income: 240000

Date Of Birth: 11/04/1994 dd/mm/yyyy

Address: Nashik

State: Maharashtra

Pin: 422009

INSERT

[Home](#)

For creating new customer this window appears where customer can fill information.

The screenshot shows a web browser window with the title 'eclipse-workspace - http://localhost:8080/TelecomApp/admin.jsp - Eclipse'. The browser's address bar shows 'http://localhost:8080/TelecomApp/admin.jsp?ID=SUBMIT&uname=Admin1&password=admin1a&submit=SUBMIT'. The page content is titled 'WELCOME TO ADMINISTRATOR' and features a pink background. A 'LOGOUT' link is in the top right. The form includes the following fields: 'Phone Number' (987654321), 'Bill Amount' (890), and 'Pay Due Date' (11/11/2018). A 'SUBMIT' button is at the bottom. The Windows taskbar at the bottom shows the time as 12:55 on 16/10/2018.

WELCOME TO ADMINISTRATOR

[LOGOUT](#)

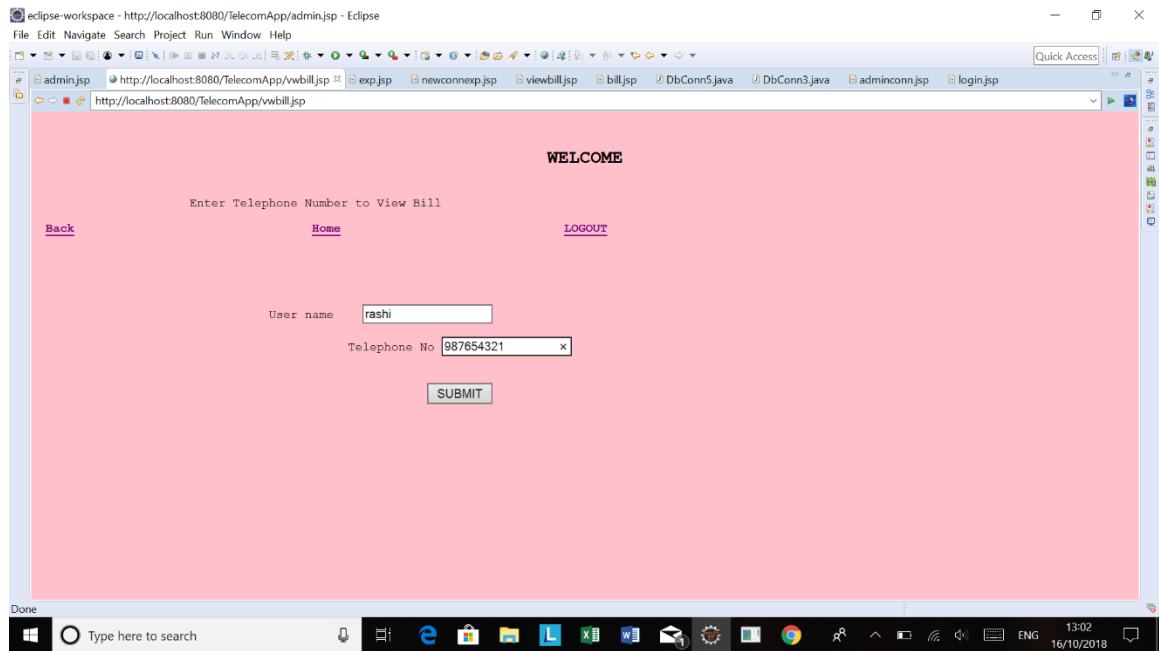
Phone Number: 987654321

Bill Amount: 890

Pay Due Date: 11/11/2018 dd/mm/yyyy

SUBMIT

This is the window where admin will enter the phone number ,the amount to be paid and the pay by date and only admin have access to this window.



This window appears when the customer logs in and wants to view his bill details.

## CHAPTER 7

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### Source code

DbConn.java file

```
package com;
import java.sql.*;

public class DbConn
{
    private ResultSet m_RS = null; // RecordSet Variable
    private Connection m_conn = null;

    public String setData(String name, String pwd, String fName, String lName,
String email, String pno, String address, String state, int pin, String cno)
    {
        String sqlInsSt = "INSERT INTO USER_TBS
VALUES('"+name+"','"+pwd+"','"+fName+"','"+lName+"','"+email+"','"+pno+"','"+a
ddress+"','"+state+"','"+pin+"','"+cno+"')";
        int n = 0;
        if(m_conn == null) // if Connection has not been set
            return "Connection failed" ;

        try {
            Statement s = m_conn.createStatement();
            n = s.executeUpdate(sqlInsSt);
        }catch (SQLException e) {
            e.printStackTrace();} // if a SQL error occurs

        if(n !=0)
            return "Data inserted successfully" ;
        else
            return "Data insertion is failed" ;
    }

    public ResultSet getData(){
        String sqlStatement = "SELECT pno FROM USER_TBS" ;
        ResultSet temp = executeQuery(sqlStatement);
        return temp;
    }

    //-----
    // Method executeQuery -- for executing queries. Returns
    // a ResultSet (RecordSet) kind of like in ADO
    //-----
    public ResultSet executeQuery(String stmt)
    {
        if(m_conn == null) // if Connection has not been set
```

```

        m_RS = null;
    else
    { try {
        Statement s = m_conn.createStatement();
        m_RS = s.executeQuery(stmt);
    }
    catch (SQLException e) {e.printStackTrace();} // if a SQL error
occurs
    }
    return(m_RS);
}

//-----
// Method DBConnect -- must connect to the DB before a
// query can be executed. Returns an error message
// to be printed by the caller if there is an error.
//-----
public String DBConnect()
{
    String retVal = ""; // there are no errors yet
    //Connection conn = null;
    try // try to connect to the database
    { Class.forName("com.mysql.jdbc.Driver");
      m_conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Teledb","root","root"
);
    }
    // if the driver class isn't found
    catch (ClassNotFoundException e) {retVal = e.toString();
    e.printStackTrace();}
    catch (SQLException e) {retVal = e.toString();
    e.printStackTrace();} // if a SQL error occurs

    return(retVal); // returns error messages or an empty string
    // that the caller must print.
}

}

```

### Admin.jsp file

```

<html>
<script>
function f1(){
if(document.admin.pno.value==0)
{ alert("Phone no is Mandatory");
  return false;
}
if(isNaN(document.admin.pno.value))
{alert("Phone no should contain numerics only");
return false;
}
if(document.admin.bamt.value==0)

```

```

        { alert("Amount is Mandatory");
          return false;}
if(isNaN(document.admin.bamt.value))
{alert("Amount should contain numerics only");
 return false;
}
if(document.admin.pdd.value==0)
{ alert("Pay Due Date is Mandatory");
 return false;
}
if(document.admin.pdd.value.length!=10||document.admin.pdd.value.charAt(2)!='/'
'|'||document.admin.pdd.value.charAt(5)!='/')
{
 alert("date should be in dd/mm/yyyy format");
 return false;
}
var x=(document.admin.pdd.value.substring(0,2));
var y=(document.admin.pdd.value.substring(3,5));
var z=(document.admin.pdd.value.substring(6,document.admin.pdd.value.length));
if(x<0||x>31||y<0||y>12||z<1890)
{
 alert("enter valid date");
 return false;
}
switch(y)
{
 case "04":
case "06":
case "09":
case "11":
if(x==31)
{
 alert("enter valid day");
 return false;
}
break;
case "02":
if((z%400!=0)&&(z%4!=0||z%100!=0)&&(x>28))
{

 alert("its not a leap year ");
 return false;

}
else
{
if(x>29)
{
 alert("enter valid day");
 return false;
}
}
}

return true;

```



```
}  
</script>
```

```
<body align="center" bgcolor="pink">  
<pre>    <h2 align="center">WELCOME TO ADMINISTRATOR</h2></pre>  
    <pre>  
        <a href="Logout.jsp"><b>LOGOUT</b></a></pre>  
<form name="admin" action="adminconn.jsp" method="get" onsubmit="return  
f1()">  
<input type="hidden" name="ID" value="SUBMIT">  
<p align="center">  
<pre>
```

Phone Number <input type="text" name="pno">

Bill Amount <input type="text" name="bamt">

Pay Due Date <input type="text" name="pdd" > dd/mm/yyyy

<input type="submit" name="submit"  
value="SUBMIT">  
  
</pre>

```
</p>  
</form>  
</body>  
</html>
```

## CHAPTER 8

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### Testing

Sr.no	Description	Input	Expected Output	Output	Status
1.	Customer Login				
1.1	Username				
	Enter the characters in the user name field	[a-z][A-Z]	It should accept the characters	It accepts the character	Pass
	Enter the Numeric values in the user name field	0.....9	It should not accept the values	It does not accept the values	Pass
	Enter the Special Symbols In the user name field	!,@,#,\$,&,*...etc	It should not accept the special symbols	It does not accept the special symbol	Pass
1.2	Password				
	Enter the characters in the user name field	[a-z][A-Z]	It should accept the characters	It accepts the character	Pass
	Enter the Numeric values in the user name field	0.....9	It should accept the values	It accepts the values	Pass
	Enter the Special Symbols In the user name field	!,@,#,\$,&,*...etc	It should accept the special symbols	It accepts the special symbol	Pass
2	Click on the login button	-	It should go to the create user.	It should go to the create user.	Pass
3.	Click on the Create profile button		It should go to the next window where the user is created.	It should go to the next window where the user is created.	Pass
4.	Click on insert data button		It should go to the login form.	It should go to the login form.	Pass
5.	Admin Login				
5.1	Username				

	Enter the characters in the user name field	[a-z][A-Z]	It should accept the characters	It accepts the character	Pass
	Enter the Numeric values in the user name field	0....9	It should not accept the values	It does not accept the values	Pass
	Enter the Special Symbols In the user name field	!,@,#,\$,&,*...etc	It should not accept the special symbols	It does not accept the special symbol	Pass
5.2	Password				
	Enter the characters in the user name field	[a-z][A-Z]	It should accept the characters	It accepts the character	Pass
	Enter the Numeric values in the user name field	0....9	It should accept the values	It accepts the values	Pass
	Enter the Special Symbols In the user name field	!,@,#,\$,&,*...etc	It should accept the special symbols	It accepts the special symbol	Pass
6.	Click on login button.		It should go to form where the customer information is stored.	It should go to form where the customer information is stored.	Pass
7.	Sign up				
7.1	Click on Sign up.		It should go to create user record.	It should go to create user record.	Pass
8.	Click on create create account button.		It should go to the login form and the same process should follow.	It should go to the login form and the same process should follow.	Pass

## **CHAPTER 9**

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### **Conclusion**

In the conclusion we can say that this project will be very effective and user friendly to use. The system cost will be very low as well as the printing cost is also low. The system will provide an error free user interface so that all the manual error has been taken care.

## CHAPTER 10

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### References

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- Java: The complete reference
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Address (Details):  
Computer Department, K. K. Wagh Institute of Engineering Education & Research,  
Hirabai Haridas Vidyanagari, Amrutdham, Nashik  
Pin – 422 003

### Report Title: ID-CARD GENERATOR

Author [with Address, phone, E-mail]:  
Address: NASHIK  
Phone: 7219491847, 9579180174, 9527464868  
  
E-mail: dhindsaharpal05@gmail.com  
[rashmiramkumar5@gmail.com](mailto:rashmiramkumar5@gmail.com)  
[sheety.rashi16@gmail.com](mailto:sheety.rashi16@gmail.com)  
[anjalitrmukhe1998@gmail.com](mailto:anjalitrmukhe1998@gmail.com)

Author Details (Year, Branch, Roll):

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Branch: Computer Engineering

Roll: 59,68,38

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