

# **“Customer Relationship Management”**

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**Under the Guidance of**

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**Diploma in Computer Engineering**

## **Chapter 1 : Introduction**

### **1.1 Motivation: -**

In today's intensely competitive, rapidly changing & highly complex business environment characterized by diminishing customer loyalty, the need to be market focused & customer centric is more critical than any other time in past. Firms use technology as a key tool to enhance the information flow within their business units, helping their employees better understand the ever changing and increasing need and wants of their customers. It is certain that the internet will continue to change the ways customers and organizations interact with one another in terms of speed and ease. This fact requires that the integration of internet technology into CRM activities occur at all levels throughout the organization. Thus, it would be wrong to say that keeping its customer satisfied is in the best interests of the organizations. The purpose of this study is to bring insight and deeper understanding into the objectives, strategies and the expected benefits of CRM initiatives by the organization.

### **1.2 Literature Survey: -**

The CRM is a new technique in marketing where the marketer tries to develop long term relationship with the customers to develop them as life time customers. CRM aims to make the customer climb up the ladder of loyalty. The company first tries to determine who are likely prospects i.e. the people who have a strong potential interest in the product and ability to pay for it. The company hopes to convert many of its qualified prospect into first time customers and then to convert those first time customers into repeat customers. Then the company tries to convert these repeat customers into clients – they are those people who buy only from the company in the relevant product categories. The next challenge for the company is to convert these clients into advocates. Advocates are those clients who praise the company and encourage others to buy from it. The ultimate challenge is to convert these advocates into partners where the customers and the clients work actively together to discover ways of getting mutual benefit. Thus in CRM the key performance figure is not just current market share but share of life time value by converting customers into partners.

### **1.3 Need: -**

CRM software provides a business with the ability to create, assign and manage requests made by customers. An example would be a Call center software which helps to direct a customer to the agent who can best help them with their current problem. Recognizing that this type of service is an important factor in attracting and retaining customers, organizations are increasingly turning to technology to help them improve their client experience while aiming to increase efficiency and minimize costs. CRM software can also be used to identify and reward loyal customers which in turn will help customer retention. Also a company can keep a track on its existing customers, track their project statues and also keep a check on their payment history.

## Chapter 2 : Proposed Work

### 2.1 Problem Definition

- Neglect in customer relationship have a reducing figure in the count of customers in their customer database. This study will look at impact of customer relationship management on customer's loyalty.
- Within the rapid expanding literature of relationship marketing, business-to-business marketing and customer relationship management, there is relatively little attention paid to the value of the organization can get from such business strategies.

### 2.2 Final Objective

CRM, in its broadest sense, means managing all interactions and business with customers. This includes, but is not limited to, improving customer service. A good CRM program will allow a business to acquire customers, service the customer, increase the value of the customer to the company, retain good customers, and determine which customers can be retained or given a higher level of service. A good CRM program can improve customer service by facilitating communication in several ways:

- 1) To provide a user-friendly mechanism for registering customer complaints.
- 2) To know, how to maintain relationship with customer.
- 3) To expand customer database.
- 4) To improve the efficiency of business.
- 5) To provide a mechanism to track all points of contact between customer and the company, and do it in an integrated way so that all sources and types of contact are included, and all users of the system see the same view of the customer.

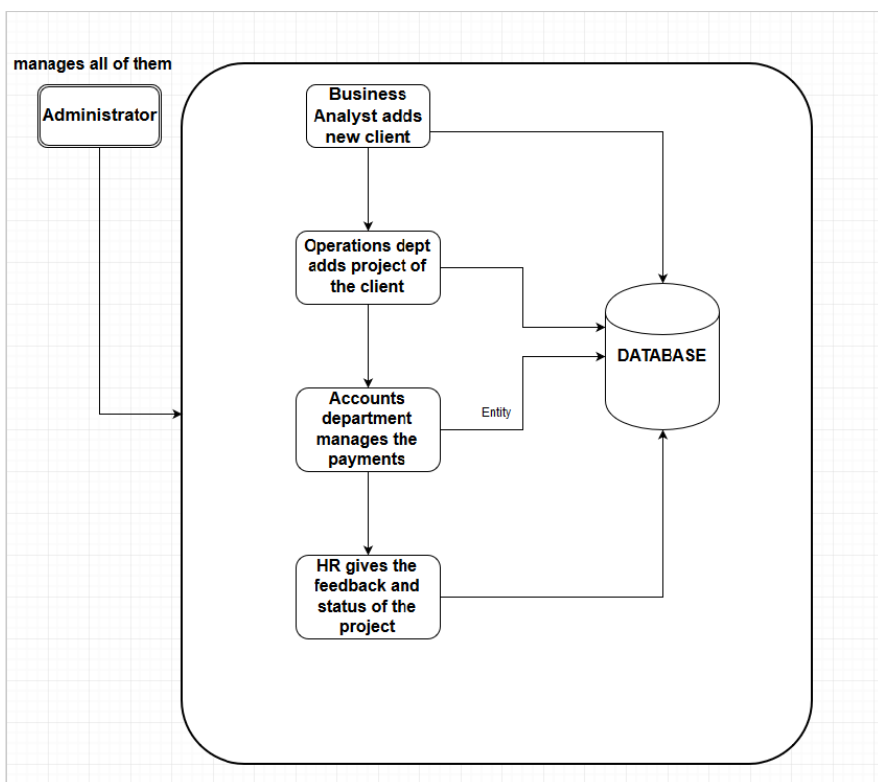
### 2.3 Constraints

- Although a good CRM can be implemented in an organization but the question raised will be who knows how to run the CRM system, for this a training will be needed for the existing employees.
- A proper senior management committee should be formed to look after them.
- Cost for implementing CRM software is high and it is beneficial for top end companies but what about the small scale companies? How will they implement CRM software?

### 2.4 User Requirements:-

- System that can store every possible details of the customer as well as the employees working in the firm.
- The system consists of 6 various departments that are administrator, accounts, human resource, technical, business analysts, operations.
- Database and tracking of the customer is the main part of our project.
- The details which you have entered will be saved in the database i.e. database of customers- which helps in maintaining a bond between customer and organization.
- This system is a convenience for both the customer as well as the organization.

### 2.5 Life Cycle of the Project:-



## 2.6 Feasibility Study

- **Hardware Requirements(Minimum) :-**

Name	Details
Processor	Dual Core
RAM	2 Gb
Memory	10 MB

- **Software Requirements(Minimum) :-**

Name	Details
Operating System	Windows 7
Platform	Java
Language	Java

- **Time**

Time required to develop the application is 8-10 months.

- **Cost:**

Overall cost of project including system, books, software, learning, man power, etc. and other sources is: ₹20,000

## 2.7 Project Plan

Name	Work	Duration
Shreneel,Parth,Akshay,Gayatri	Literature Survey	1 month
ShreneelGayatri,Akshay	Analysis	1- ½ month
Shreneel,Gayatri,Akshay	Planning	15-20 days
Shreneel.Parth,Gayatri,Akshay	User Requirements	15-20 days
Shreneel,Akshay	Software Coding	3 months
Gayatri,Parth,	UML Diagrams	15 days
Gayatri,Akshay	PPT & Seminar Report	1 week
Shreneel,Akshay	Testing	1-2 weeks
Shreneel,Akshay,Gayatri	Black book	15 days
Shreneel,Akshay,Gayatri,Parth	Deployment	25 days

## Chapter 3 : Project Design

### 3.1 Hardware and Software requirements: -

\*Hardware Requirements (Minimum): -

- 1) Processor- Dual Core
- 2) RAM- 2GB
- 3) Storage Memory- 10 MB

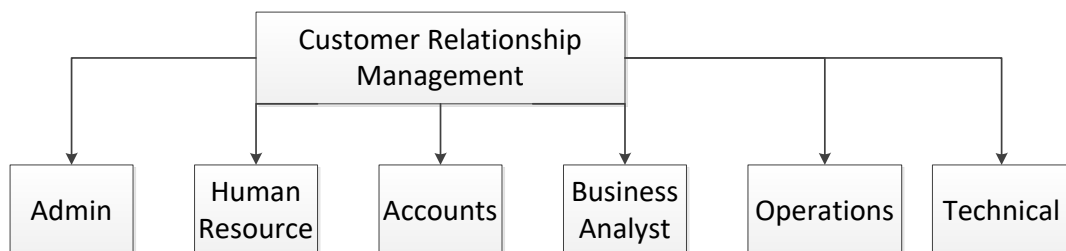
\*Software Requirements (Minimum): -

- 1) Operating System- Windows 7
- 2) Platform- JAVA
- 3) Language- JAVA
- 4) Software- NetBeans

### 3.2 Module Description: -

Our application consists of in all 6 modules that are as follows: -

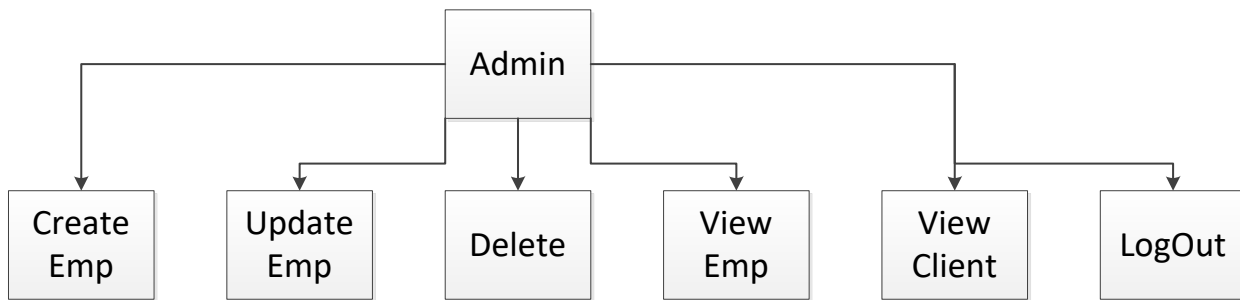
- 1) Administrator
- 2) Human Resource (HR)
- 3) Accounts
- 4) Business Analyst (BA)
- 5) Operations
- 6) Technical



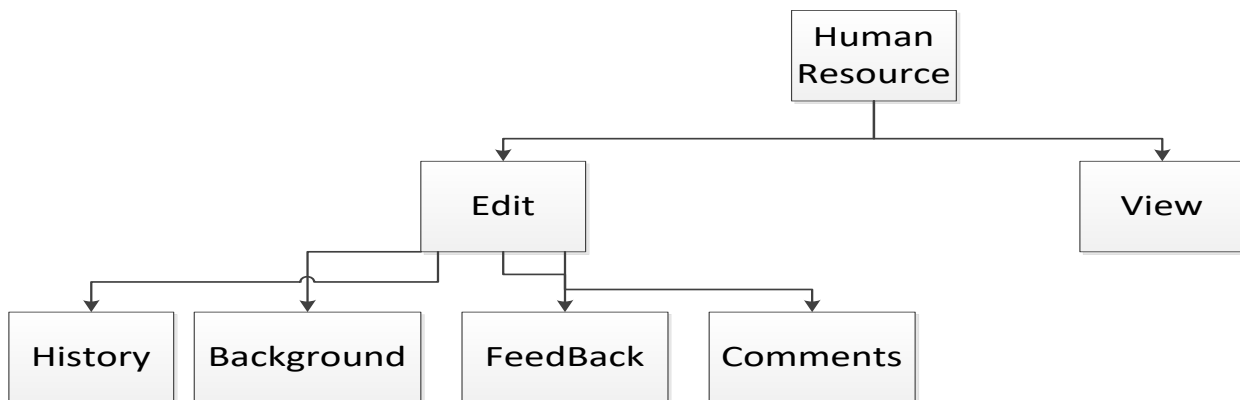
**Administrator:** - The main motive of admin is to look after all the components of the system. The job of the admin is to create emp, update emp, delete, view emp, view client and so on. Basically admin has the whole rights of the system.



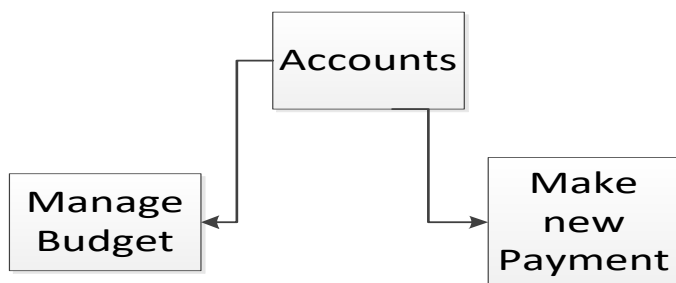
## Customer Relationship Management



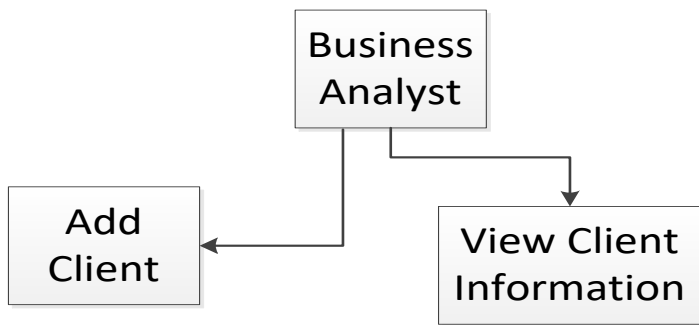
**Human Resource:** - The work of the HR is to look after their employee's history i.e. how he has been recruited in the company. In this system the HR deals with the employee's background, history, gives his feedback and comments.



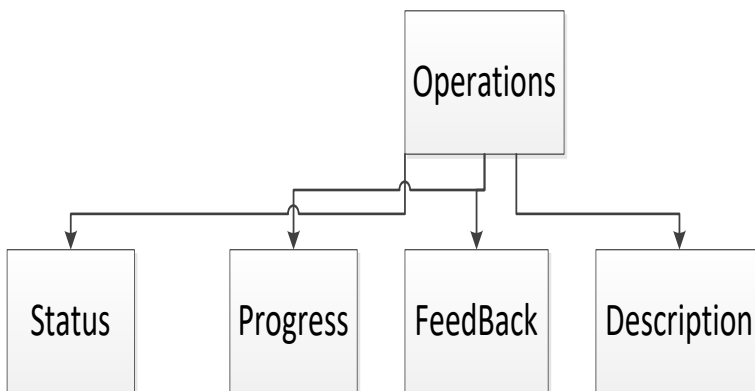
**Accounts:** - The accounts section looks after all the financial statues of the client and keep a thorough check on all the transactions.



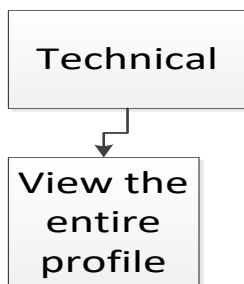
**Business Analyst:** - The BA deals with all the clients he/she brought in the systems. The clients who deals with the company are seen under the guidance of the BA.



**Operations:** - Operations department looks after the progress of the client's projects, gives his own feedback and checks the status of the project.



**Technical:** - The technical department does a proof reading of the entire profiles of client as well as employees.



### 3.3 Algorithms: -

#### 3.3.1. Algorithm for Admin Login and its features.

- a. Start the project
- b. Select the Admin login from the given page.
- c. Enter the password of the admin login.
- d. When logged in successfully, functions of admin are visible which they can perform.
- e. To add employee, click on add employee and fill the necessary details as per required.
- f. To delete employee, click on delete employee and select the employee which you want to delete.

### **3.3.2 Algorithm for adding a client in the system.**

- a) Start the project
- b) Click on login and enter the credentials assigned to the Business Analyst
- c) After logging in click on add client
- d) Fill in the necessary details of the client, set its CMM level depending upon its previous transaction history.
- e) Click on save button and the client will be added in the system

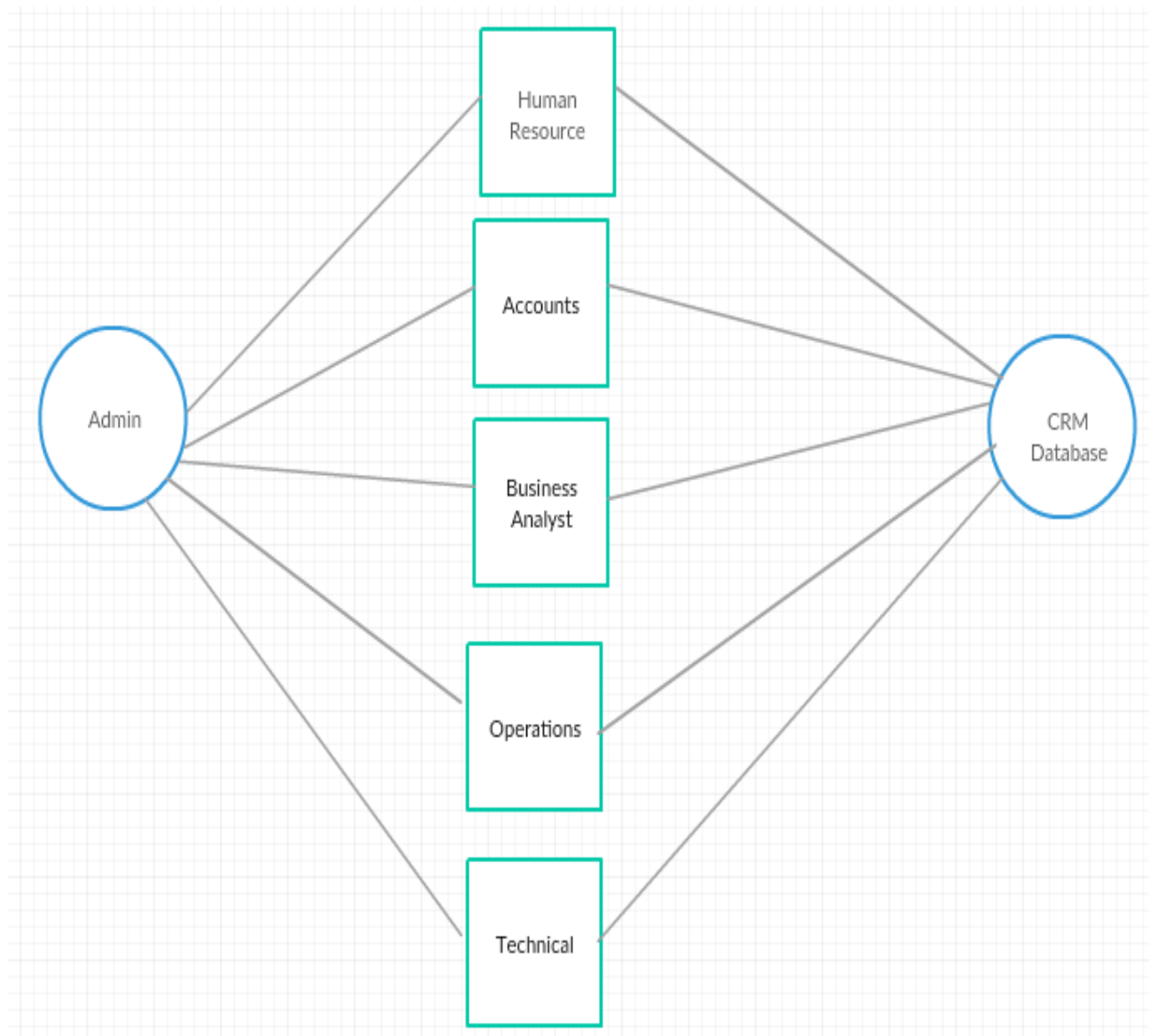
### **3.3.3 Algorithm for adding project to a specific client**

- a) Start the project
- b) Click on login and enter the credentials assigned to the Operations Dept.
- c) Click on Add project
- d) Select client in which you want to add your project
- e) Enter the necessary details and save.

### **3.3.4 Algorithm for making a payment of the client**

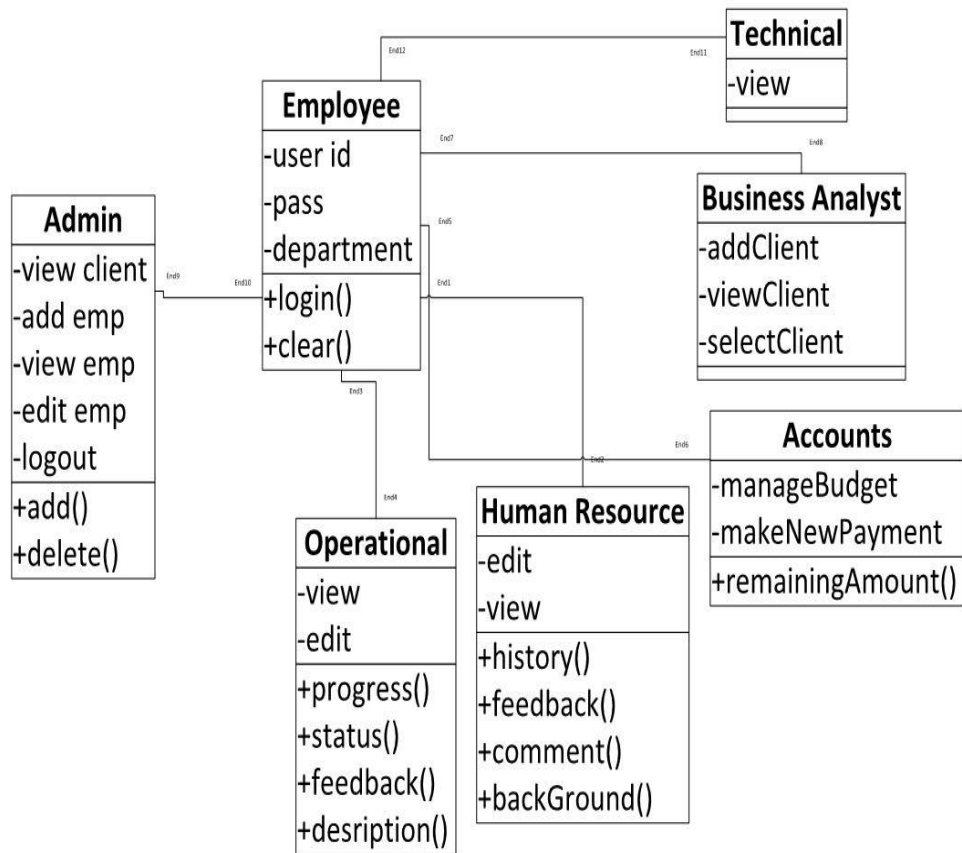
- a) Start the project
- b) Click on login and enter the credentials assigned to the Accounts Dept.
- c) Select the client
- d) Click on Pay new amount
- e) Fill the payment details & click on save.

### 3.4 Data Flow Diagram

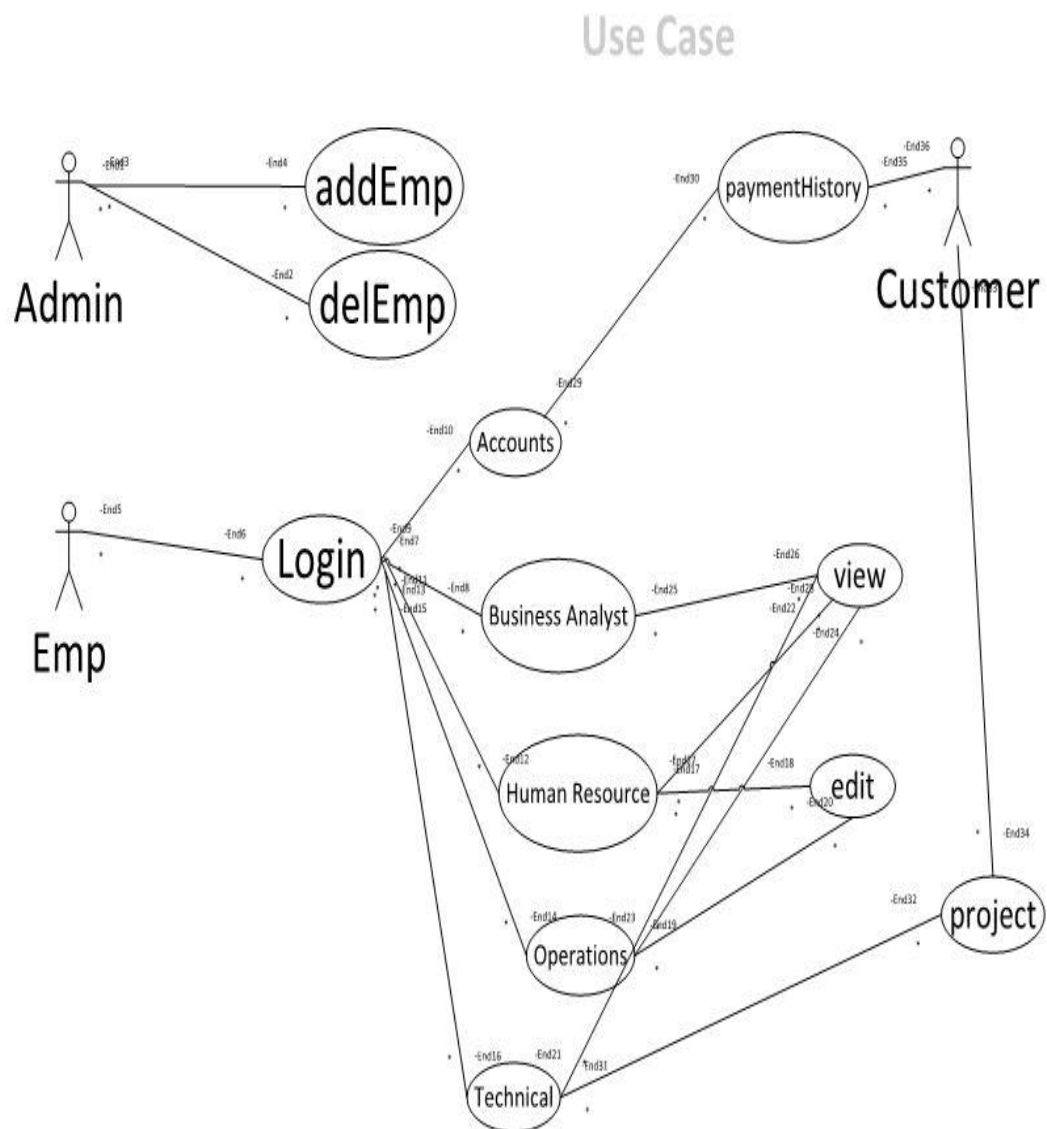


## 3.5 UML Diagrams

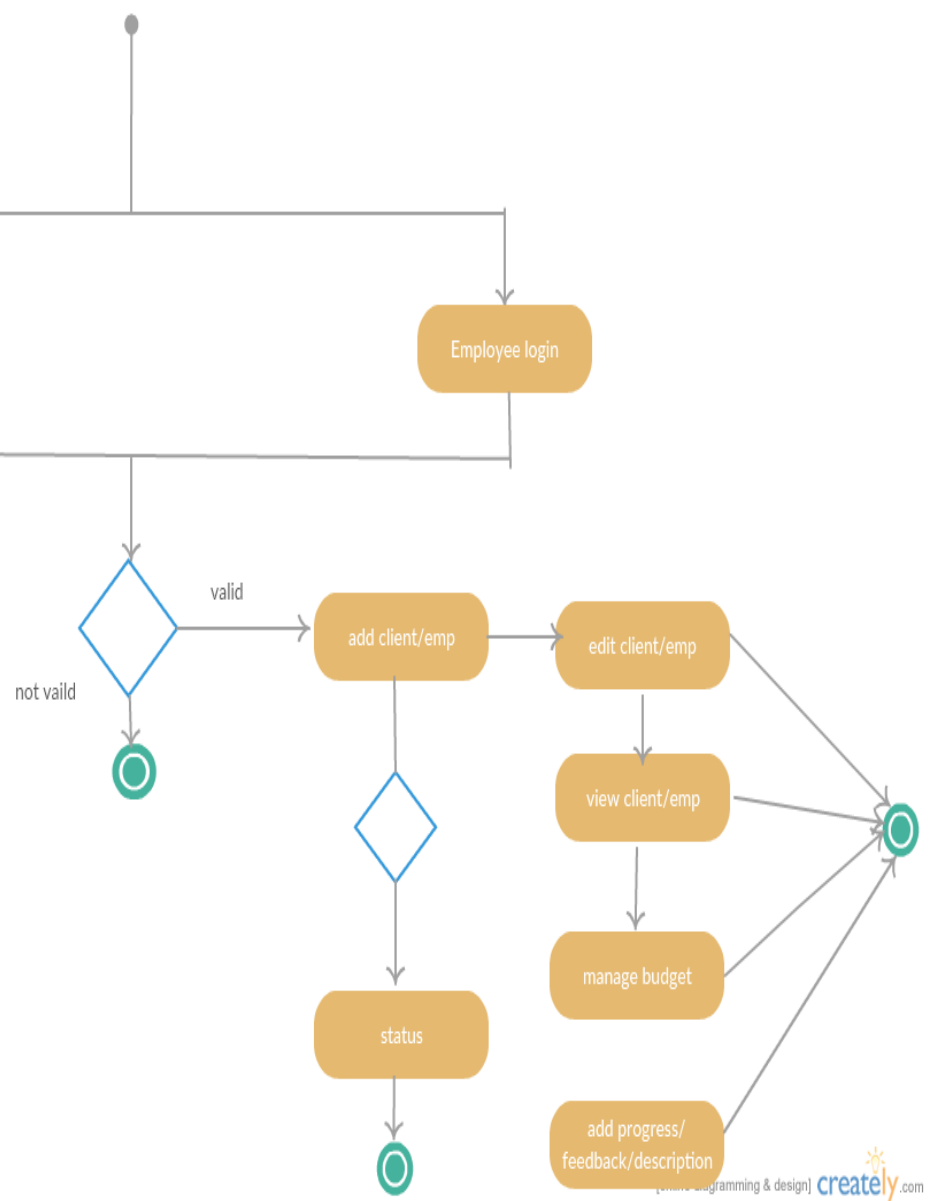
### 3.5.1 Class Diagram



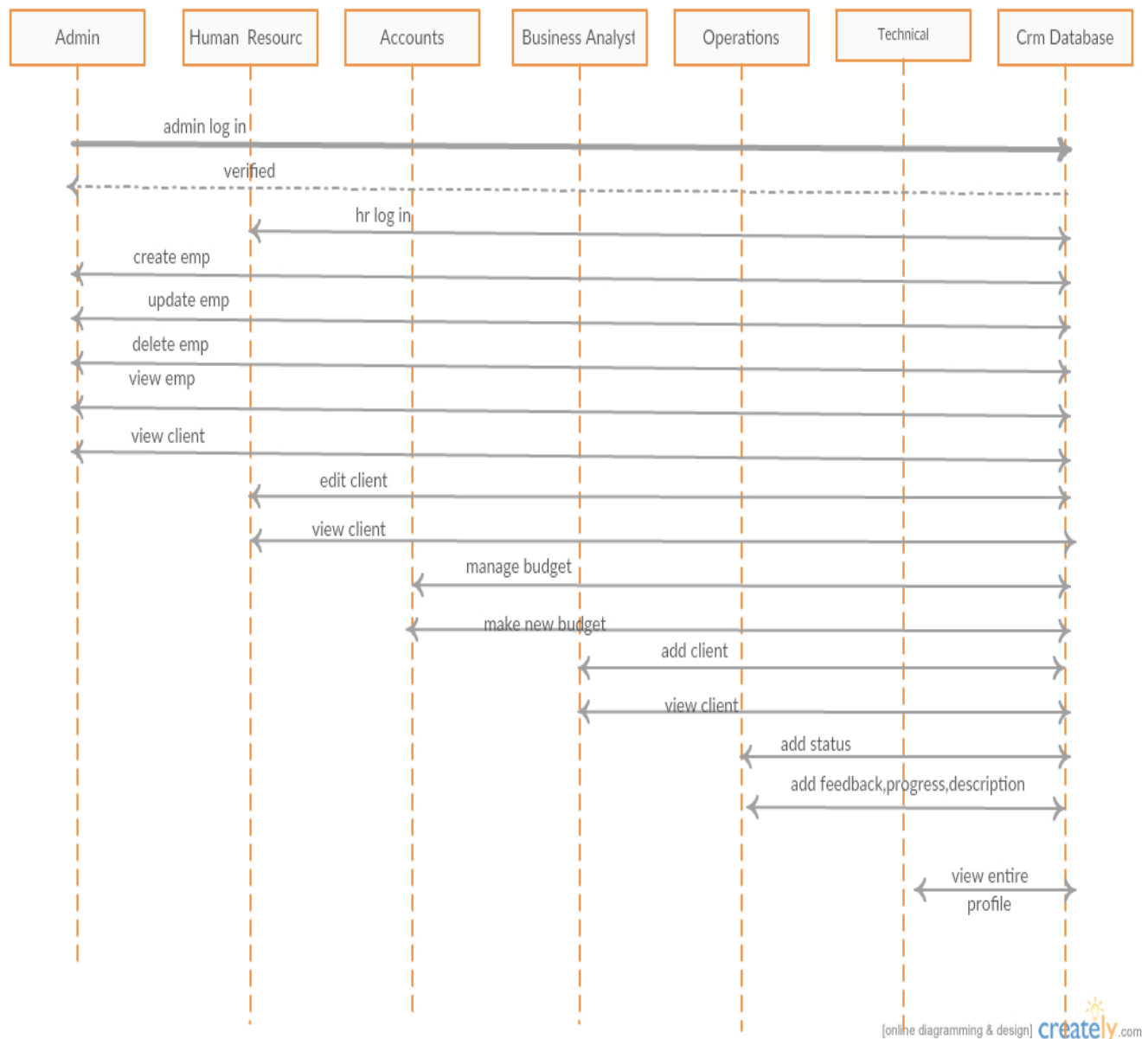
### 3.5.2 Use Case Diagram



### 3.5.3 Activity Diagram



### 3.5.4 Sequence Diagram





## Chapter 4 : Implementation

### 4.1 Necessary source code of project

#### 4.1.1 Home page

```
import java.awt.Toolkit;

import javax.swing.UIManager;

public class homepage extends javax.swing.JFrame {

    public homepage() {

        initComponents();

        this.setTitle("Welcome");
        this.setIconImage(Toolkit.getDefaultToolkit().getImage(getClass().getResource("i2.jpg")));

    }

    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();

        jLabel2 = new javax.swing.JLabel();

        jLabel3 = new javax.swing.JLabel();

        jLabel4 = new javax.swing.JLabel();

        login = new javax.swing.JButton();

        admin = new javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        setResizable(false);

        jLabel1.setIcon(new javax.swing.ImageIcon(getClass().getResource("/ass/client-management.jpg")));

        jLabel2.setFont(new java.awt.Font("Palatino Linotype", 1, 36)); jLabel2.setText("Client");

        jLabel3.setFont(new java.awt.Font("Palatino Linotype", 1, 36));

        jLabel3.setText("Relationship");

    }

}
```

## Customer Relationship Management

```
jLabel4.setFont(new java.awt.Font("Palatino Linotype", 1, 36)); jLabel4.setText("Management");

login.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

login.setText("Login");

login.addActionListener(new java.awt.event.ActionListener() {

    public void actionPerformed(java.awt.event.ActionEvent evt) {

        loginActionPerformed(evt);

    }

});

admin.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

admin.setText("Admin");

admin.addActionListener(new java.awt.event.ActionListener() {

    public void actionPerformed(java.awt.event.ActionEvent evt) {

        adminActionPerformed(evt);

    }

});

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());

getContentPane().setLayout(layout);

layout.setHorizontalGroup(

    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()

            .addContainerGap()

            .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 150, Short.MAX_VALUE)

            .addContainerGap()

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                .addComponent(login, javax.swing.GroupLayout.DEFAULT_SIZE, 150, Short.MAX_VALUE)

                .addComponent(admin, javax.swing.GroupLayout.DEFAULT_SIZE, 150, Short.MAX_VALUE)

            )

        )

    );

    
```

## Customer Relationship Management

```
.addGap(0, 0, Short.MAX_VALUE)

.addComponent(admin)

.addGap(36, 36, 36)

.addComponent(login)

.addGap(266, 266, 266))))

.addGroup(layout.createSequentialGroup()

.addGap(71, 71, 71)

.addComponent(jLabel2)

.addGap(34, 34, 34)

.addComponent(jLabel3)

.addGap(18, 18, 18)

.addComponent(jLabel4)

.addContainerGap(89, Short.MAX_VALUE))

);

layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addGap(37, 37, 37)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel2)

.addComponent(jLabel3)

.addComponent(jLabel4))

.addGap(40, 40, 40)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(admin, javax.swing.GroupLayout.PREFERRED_SIZE, 36,

javax.swing.GroupLayout.PREFERRED_SIZE)
```

## Customer Relationship Management

```
.addComponent(login, javax.swing.GroupLayout.PREFERRED_SIZE, 36,
javax.swing.GroupLayout.PREFERRED_SIZE))

.addGap(72, 72, 72)

.addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 427, Short.MAX_VALUE)

.addContainerGap()

);

pack();

}

private void loginActionPerformed(java.awt.event.ActionEvent evt) {

this.setVisible(false);

new Login().setVisible(true);

}

private void adminActionPerformed(java.awt.event.ActionEvent evt) {

this.setVisible(false);

new admin_login().setVisible(true);

}

public static void main(String args[]) {

try {

UIManager.setLookAndFeel("com.jtattoo.plaf.texture.TextureLookAndFeel");

// start application

new homepage();

} catch (Exception e) {

}

//      for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
```

## Customer Relationship Management

```
//      if ("Nimbus".equals(info.getName())) {

//      javax.swing.UIManager.setLookAndFeel(info.getClassName());

//      break;

//      }

//      }

//      } catch (ClassNotFoundException ex) {

//      java.util.logging.Logger.getLogger(homepage.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);

//      } catch (InstantiationException ex) {

//      java.util.logging.Logger.getLogger(homepage.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);

//      } catch (IllegalAccessException ex) {

//      java.util.logging.Logger.getLogger(homepage.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);

//      } catch (javax.swing.UnsupportedLookAndFeelException ex) {

//      java.util.logging.Logger.getLogger(homepage.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);

//      }

java.awt.EventQueue.invokeLater(new Runnable() {

public void run() {

new homepage().setVisible(true);

}

});

}

private javax.swing.JButton admin;
```

## Customer Relationship Management

```
private javax.swing.JLabel jLabel1;  
  
private javax.swing.JLabel jLabel2;  
  
private javax.swing.JLabel jLabel3;  
  
private javax.swing.JLabel jLabel4;  
  
private javax.swing.JButton login;  
  
}
```

### 4.1.2 Admin Login

```
import javax.swing.JOptionPane;  
  
public class admin_login extends javax.swing.JFrame {  
  
    public admin_login() {  
  
        initComponents();  
  
        this.setTitle("Admin Login");  
  
    }  
  
    private void initComponents() {  
  
        jLabel1 = new javax.swing.JLabel();  
  
        jButton1 = new javax.swing.JButton();  
  
        pass = new javax.swing.JPasswordField();  
  
        jButton2 = new javax.swing.JButton();  
  
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);  
  
        setResizable(false);  
  
        jLabel1.setFont(new java.awt.Font("Palatino Linotype", 1, 18));  
  
        jLabel1.setText("Enter Password");  
  
        jButton1.setFont(new java.awt.Font("Palatino Linotype", 1, 18));  
  
        jButton1.setText("Login");  
  
    }  
  
}
```

## Customer Relationship Management

```
jButton1.addActionListener(new java.awt.event.ActionListener() {  
  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
  
        jButton1ActionPerformed(evt);  
  
    }  
  
});  
  
pass.setFont(new java.awt.Font("Palatino Linotype", 1, 14));  
  
jButton2.setFont(new java.awt.Font("Palatino Linotype", 1, 18));  
  
jButton2.setText("Back");  
  
jButton2.addActionListener(new java.awt.event.ActionListener() {  
  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
  
        jButton2ActionPerformed(evt);  
  
    }  
  
});  
  
javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());  
getContentPane().setLayout(layout);  
  
layout.setHorizontalGroup(  
  
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
        .addGroup(layout.createSequentialGroup()  
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
                .addGroup(layout.createSequentialGroup()  
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
                        .addGroup(layout.createSequentialGroup()  
                            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
                                .addGroup(layout.createSequentialGroup()  
                                    .addGap(140, 140, 140)  
                                    .addComponent(jLabel1))  
                                .addGroup(layout.createSequentialGroup()  
                                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
                                        .addGap(114, 114, 114)  
                                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

## Customer Relationship Management

```
.addGroup(layout.createSequentialGroup()  
  
.addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 90,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addGap(29, 29, 29)  
  
.addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 82,  
javax.swing.GroupLayout.PREFERRED_SIZE))  
  
.addComponent(pass, javax.swing.GroupLayout.PREFERRED_SIZE, 182,  
javax.swing.GroupLayout.PREFERRED_SIZE))))  
  
.addContainerGap(85, Short.MAX_VALUE))  
  
);  
  
layout.setVerticalGroup(  
  
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
  
.addGroup(layout.createSequentialGroup()  
  
.addGap(92, 92, 92)  
  
.addComponent(jLabel1)  
  
.addGap(33, 33, 33)  
  
.addComponent(pass, javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addGap(28, 28, 28)  
  
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)  
  
.addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 37,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 37,  
javax.swing.GroupLayout.PREFERRED_SIZE))  
  
.addContainerGap(58, Short.MAX_VALUE))  
  
);  
  
pack();
```



## Customer Relationship Management

```
setLocationRelativeTo(null);

}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

String pwd = new String(pass.getPassword());

if(pwd.equals("admin"))

{

this.setVisible(false);

new admin_hp().setVisible(true);

}

else {

JOptionPane.showMessageDialog(null, "Wrong Password");

}

}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {

this.setVisible(false);

new homepage().setVisible(true);

}

public static void main(String args[]) {

try {

for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {

if ("Nimbus".equals(info.getName())) {

javax.swing.UIManager.setLookAndFeel(info.getClassName());

break;

}

}

}
```

## Customer Relationship Management

```
} catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(admin_login.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);

} catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(admin_login.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);

} catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(admin_login.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);

} catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(admin_login.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);

}

java.awt.EventQueue.invokeLater(new Runnable() {

public void run() {

new admin_login().setVisible(true);

}

});

}

private javax.swing.JButton jButton1;

private javax.swing.JButton jButton2;

private javax.swing.JLabel jLabel1;

private javax.swing.JPasswordField pass;

}
```

### 4.1.3 Admin Add Employee

## Customer Relationship Management

```
import com.mysql.jdbc.Connection;

import com.mysql.jdbc.PreparedStatement;

import com.mysql.jdbc.Statement;

import java.sql.DriverManager;

import java.sql.ResultSet;

import java.util.regex.Matcher;

import java.util.regex.Pattern;

import javax.swing.JOptionPane;

public add_emp() {

    initComponents();

    this.setTitle("Add Employee");

}

boolean validateEmail(String email) { //To Validate Email ID

//Set the email pattern string

Pattern p = Pattern.compile(".*@.*\\.[a-z]+");

//Match the given string with the pattern

Matcher m = p.matcher(email);

//check whether match is found

boolean matchFound = m.matches();

if (matchFound) {

    System.out.println("Valid Email Id.");

    return true;

} else {

    System.out.println("Invalid Email Id.");

    return false;

}
```

## Customer Relationship Management

```
}  
  
}  
  
public boolean isMobileNo() {  
  
    boolean flag = false;  
  
    if (isNumber(conno.getText())) {  
  
        if ((conno.getText().length() == 10) {  
  
            System.out.println("MOBILE NUMBER OK!");  
  
            flag = true;  
  
        } else {  
  
            JOptionPane.showMessageDialog(this,"LENGTH NOT OK !");  
  
        }  
  
        } else {  
  
            JOptionPane.showMessageDialog(this,"NOT A VALID MOBILE NUMBER");  
  
        }  
  
        return flag;  
  
    }  
  
    public boolean isNumber(String str) {  
  
        boolean flag = true;  
  
        double no;  
  
        try {  
  
            no = Double.parseDouble(str);  
  
        } catch (Exception e) {  
  
            JOptionPane.showMessageDialog(this,"NOT A NUMBER :" + e);  
  
            flag = false;  
  
        }  
  
    }
```

## Customer Relationship Management

return flag;

}

private void initComponents() {

jLabel2 = new javax.swing.JLabel();

firstname = new javax.swing.JTextField();

jLabel3 = new javax.swing.JLabel();

eml = new javax.swing.JTextField();

jLabel4 = new javax.swing.JLabel();

jScrollPane1 = new javax.swing.JScrollPane();

addrs = new javax.swing.JTextArea();

jLabel5 = new javax.swing.JLabel();

conno = new javax.swing.JTextField();

jLabel6 = new javax.swing.JLabel();

usernam = new javax.swing.JTextField();

jLabel7 = new javax.swing.JLabel();

jLabel8 = new javax.swing.JLabel();

jButton1 = new javax.swing.JButton();

jButton2 = new javax.swing.JButton();

depart = new javax.swing.JComboBox();

jLabel14 = new javax.swing.JLabel();

qual = new javax.swing.JTextField();

dob = new javax.swing.JTextField();

jLabel9 = new javax.swing.JLabel();

pass = new javax.swing.JPasswordField();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

## Customer Relationship Management

```
jLabel2.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

jLabel2.setText("*Full Name:");

firstname.setFont(new java.awt.Font("Palatino Linotype", 0, 14));

jLabel3.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

jLabel3.setText("*Email:");

eml.setFont(new java.awt.Font("Palatino Linotype", 0, 14));

jLabel4.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

jLabel4.setText("*Address:");

addrs.setColumns(20);

addrs.setFont(new java.awt.Font("Palatino Linotype", 0, 14));

addrs.setRows(5);

jScrollPane1.setViewportView(addrs);

jLabel5.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

jLabel5.setText("*Contact Number:");

conno.setFont(new java.awt.Font("Palatino Linotype", 0, 14));

jLabel6.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

jLabel6.setText("*Username:");

usernাম.setFont(new java.awt.Font("Palatino Linotype", 0, 14));

jLabel7.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

jLabel7.setText("*Password:");

jLabel8.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

jLabel8.setText("*Department:");

jButton1.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

jButton1.setText("Save");

jButton1.addActionListener(new java.awt.event.ActionListener() {
```

## Customer Relationship Management

```
public void actionPerformed(java.awt.event.ActionEvent evt) {  
  
    jButton1ActionPerformed(evt);  
  
}  
  
});  
  
jButton2.setFont(new java.awt.Font("Palatino Linotype", 1, 18));  
jButton2.setText("Back");  
jButton2.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jButton2ActionPerformed(evt);  
    }  
});  
  
depart.setFont(new java.awt.Font("Palatino Linotype", 0, 14));  
depart.setModel(new javax.swing.DefaultComboBoxModel(new String[] { "Select", "Accounts", "Business  
Analysist", "HR", "Operation", "Technical" }));  
jLabel14.setFont(new java.awt.Font("Palatino Linotype", 1, 18));  
jLabel14.setText("*Qualification :");  
qual.setFont(new java.awt.Font("Palatino Linotype", 0, 14));  
dob.setFont(new java.awt.Font("Palatino Linotype", 0, 14));  
jLabel9.setFont(new java.awt.Font("Palatino Linotype", 1, 18));  
jLabel9.setText("Date of Birth:");  
pass.setFont(new java.awt.Font("Palatino Linotype", 0, 14));  
javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());  
getContentPane().setLayout(layout);  
layout.setHorizontalGroup(  
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

## Customer Relationship Management

```
.addGroup(layout.createSequentialGroup())  
  
.addGap(86, 86, 86)  
  
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
  
.addComponent(jLabel2)  
  
.addGroup(layout.createSequentialGroup())  
  
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
  
.addComponent(jLabel5)  
  
.addComponent(jLabel6)  
  
.addComponent(jLabel8)  
  
.addComponent(jLabel14)  
  
.addComponent(jLabel7)  
  
.addComponent(jLabel3)  
  
.addComponent(jLabel4)  
  
.addComponent(jLabel9))  
  
.addGap(44, 44, 44)  
  
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)  
  
.addComponent(empl)  
  
.addComponent( usernam)  
  
.addComponent(conno)  
  
.addComponent(firstname)  
  
.addComponent(qual)  
  
.addComponent(depart, 0, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)  
  
.addComponent(dob)  
  
.addComponent(pass)
```



## Customer Relationship Management

```
.addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 269,
javax.swing.GroupLayout.PREFERRED_SIZE))))

.addContainerGap(52, Short.MAX_VALUE))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup())

.addContainerGap(209, Short.MAX_VALUE)

.addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 75,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addGap(87, 87, 87)

.addComponent(jButton2)

.addGap(162, 162, 162))

);

layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup())

.addGap(89, 89, 89)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(firstname, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

.addComponent(jLabel2))

.addGap(27, 27, 27)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jLabel4)

.addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 120,
javax.swing.GroupLayout.PREFERRED_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
```

## Customer Relationship Management

```
.addComponent(empl, javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addComponent(jLabel3))  
  
.addGap(30, 30, 30)  
  
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)  
  
.addComponent(dob, javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addComponent(jLabel9))  
  
.addGap(31, 31, 31)  
  
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)  
  
.addComponent(conno, javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addComponent(jLabel5))  
  
.addGap(33, 33, 33)  
  
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)  
  
.addComponent( usernam, javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addComponent(jLabel6))  
  
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
  
.addGroup(layout.createSequentialGroup()  
  
.addGap(31, 31, 31)  
  
.addComponent(pass, javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))  
  
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()  
  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
  
.addComponent(jLabel7)))  
  
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

## Customer Relationship Management

```
.addGroup(layout.createSequentialGroup())

.addGap(26, 26, 26)

.addComponent(qual, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

.addGroup(layout.createSequentialGroup())

.addGap(18, 18, 18)

.addComponent(jLabel14)))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 27, Short.MAX_VALUE)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(depart, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

.addComponent(jLabel8))

.addGap(50, 50, 50)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 32,
javax.swing.GroupLayout.PREFERRED_SIZE))

.addGap(50, 50, 50))

);

pack();

}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

String frstname=firstname.getText();

String addr=addrs.getText();

String email=eml.getText();
```

## Customer Relationship Management

```
String dateob=dob.getText();

String cnt=conno.getText();

String user=usnam.getText();

String pwd=new String(pass.getPassword());

String qua=qual.getText();

String deptmt=(String)depart.getSelectedItem();

try{

Class.forName("com.mysql.jdbc.Driver");

Connection conn=(Connection)
DriverManager.getConnection("jdbc:mysql://localhost:3306/crm_project","root","root");

PreparedStatement pr=(PreparedStatement) conn.prepareStatement("insert into add_emp (name, address,
phnumber, email, dob, username,password, dept, qual) values (?,?,,?,?,,?,?,,?)");

if(frstname.equals("") || addr.equals("") || user.equals("") || pwd.equals("") || deptmt.equals("") )

{

JOptionPane.showMessageDialog(null, "Please enter all information ");

}

else{

System.out.println("connected");

pr.setString(1,frstname);

pr.setString(2,addr);

pr.setString(4,email);

pr.setString(5,dateob);

pr.setString(3,cnt);

pr.setString(6,user);

pr.setString(7, pwd);

pr.setString(8,deptmt);
```

## Customer Relationship Management

```
pr.setString(9,qua);

pr.executeUpdate();

System.out.println("connect");

JOptionPane.showMessageDialog(null,"Succesfully Register");

}

firstname.setText("");

addrs.setText("");

eml.setText("");

dob.setText("");

conno.setText("");

usernam.setText("");

pass.setText("");

qual.setText("");

}

catch(Exception e){

e.getMessage();

}

this.dispose();

admin_hp hp = new admin_hp();

hp.setVisible(true);

}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {

this.setVisible(false);

new admin_hp().setVisible(true);

}
```

## Customer Relationship Management

```
public static void main(String args[]) {  
  
    try {  
  
        for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {  
  
            if ("Nimbus".equals(info.getName())) {  
  
                javax.swing.UIManager.setLookAndFeel(info.getClassName());  
  
                break;  
  
            }  
  
        }  
  
        } catch (ClassNotFoundException ex) {  
  
            java.util.logging.Logger.getLogger(add_emp.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);  
  
        } catch (InstantiationException ex) {  
  
            java.util.logging.Logger.getLogger(add_emp.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);  
  
        } catch (IllegalAccessException ex) {  
  
            java.util.logging.Logger.getLogger(add_emp.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);  
  
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {  
  
            java.util.logging.Logger.getLogger(add_emp.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);  
  
        }  
  
        java.awt.EventQueue.invokeLater(new Runnable() {  
  
            public void run() {  
  
                new add_emp().setVisible(true);  
  
            }  
  
        });  
  
    }  
  
    private javax.swing.JTextArea addrs;  
  
    private javax.swing.JTextField conno;
```

## Customer Relationship Management

```
private javax.swing.JComboBox depart;  
  
private javax.swing.JTextField dob;  
  
private javax.swing.JTextField eml;  
  
private javax.swing.JTextField firstname;  
  
private javax.swing.JButton jButton1;  
  
private javax.swing.JButton jButton2;  
  
private javax.swing.JLabel jLabel14;  
  
private javax.swing.JLabel jLabel2;  
  
private javax.swing.JLabel jLabel3;  
  
private javax.swing.JLabel jLabel4;  
  
private javax.swing.JLabel jLabel5;  
  
private javax.swing.JLabel jLabel6;  
  
private javax.swing.JLabel jLabel7;  
  
private javax.swing.JLabel jLabel8;  
  
private javax.swing.JLabel jLabel9;  
  
private javax.swing.JScrollPane jScrollPane1;  
  
private javax.swing.JPasswordField pass;  
  
private javax.swing.JTextField qual;  
  
private javax.swing.JTextField usernam;  
  
}
```

### 4.1.4 Employee Login

```
import java.sql.Connection;  
  
import java.sql.DriverManager;  
  
import java.sql.PreparedStatement;
```

## Customer Relationship Management

```
import java.sql.ResultSet;

import javax.swing.JOptionPane;

public class Login extends javax.swing.JFrame {

    public Login() {

        initComponents();

        this.setTitle("Login Form");

    }

    defaultstate="collapsed" desc="Generated Code">

    private void initComponents() {

        user = new javax.swing.JTextField();

        jLabel1 = new javax.swing.JLabel();

        jLabel2 = new javax.swing.JLabel();

        jButton1 = new javax.swing.JButton();

        jButton2 = new javax.swing.JButton();

        jButton3 = new javax.swing.JButton();

        jLabel4 = new javax.swing.JLabel();

        depart = new javax.swing.JComboBox();

        pwd = new javax.swing.JPasswordField();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        setResizable(false);

        user.setFont(new java.awt.Font("Palatino Linotype", 0, 18));

        user.addActionListener(new java.awt.event.ActionListener() {

            public void actionPerformed(java.awt.event.ActionEvent evt) {

                userActionPerformed(evt);

            }

        })

    }

}
```



```
});

jLabel1.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

jLabel1.setText("User Name:");

jLabel2.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

jLabel2.setText("Password:");

jButton1.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

jButton1.setText("Login");

jButton1.addActionListener(new java.awt.event.ActionListener() {

    public void actionPerformed(java.awt.event.ActionEvent evt) {

        jButton1ActionPerformed(evt);

    }

});

jButton2.setFont(new java.awt.Font("Palatino Linotype", 1, 18));

jButton2.setText("Cancel");

jButton2.addActionListener(new java.awt.event.ActionListener() {

    public void actionPerformed(java.awt.event.ActionEvent evt) {

        jButton2ActionPerformed(evt);

    }

});

jButton3.setFont(new java.awt.Font("Palatino Linotype", 1, 18)); jButton3.setText("Clear");

jButton3.addActionListener(new java.awt.event.ActionListener() {

    public void actionPerformed(java.awt.event.ActionEvent evt) {

        jButton3ActionPerformed(evt);

    }

});
```

## Customer Relationship Management

```
jLabel4.setFont(new java.awt.Font("Palatino Linotype", 1, 18)); jLabel4.setText("Department:");

depart.setFont(new java.awt.Font("Times New Roman", 1, 14));

depart.setModel(new javax.swing.DefaultComboBoxModel(new String[] { "Select", "Accounts", "Business
Analysist", "HR", "Operation", "Technical" }));

pwd.setFont(new java.awt.Font("Palatino Linotype", 0, 14));

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());

getContentPane().setLayout(layout);

layout.setHorizontalGroup(

    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

        .addGroup(layout.createSequentialGroup()

            .addGap(75, 75, 75)

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)

                .addComponent(jLabel1)

                .addComponent(jLabel2)

                .addComponent(jLabel4))

            .addGap(18, 18, 18)

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                .addComponent(depart, 0, 200, Short.MAX_VALUE)

                .addComponent(pwd)

                .addComponent(user))

            .addGap(81, javax.swing.GroupLayout.PREFERRED_SIZE))

        .addGroup(layout.createSequentialGroup()

            .addGap(63, 63, 63)

            .addComponent(jButton1)

            .addGap(47, 47, 47))
```

## Customer Relationship Management

```
.addComponent(jButton3)

.addGap(59, 59, 59)

.addComponent(jButton2)

.addContainerGap())

);

layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup())

.addContainerGap(88, Short.MAX_VALUE)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(user, javax.swing.GroupLayout.PREFERRED_SIZE,

javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

.addComponent(jLabel1))

.addGap(35, 35, 35)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel2)

.addComponent(pwd, javax.swing.GroupLayout.PREFERRED_SIZE,

javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

.addGap(37, 37, 37)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(depart, javax.swing.GroupLayout.PREFERRED_SIZE, 35,

javax.swing.GroupLayout.PREFERRED_SIZE)

.addComponent(jLabel4))

.addGap(32, 32, 32)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jButton2)
```

## Customer Relationship Management

```
.addComponent(jButton3)

.addComponent(jButton1))

.addGap(49, 49, 49))

);

pack();

}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

String dept = depart.getSelectedItem().toString();

String uname = user.getText();

String pword = new String(pwd.getPassword());

String users = null;

String departmt = null,pwds=null;

try {

boolean flag = false;

Class.forName("com.mysql.jdbc.Driver");

Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/crm_project", "root", "root");

//Statement stmt=con.createStatement();

PreparedStatement pr = con.prepareStatement("select username, password, dept from add_emp");

ResultSet rs = pr.executeQuery();

while (rs.next()) {

users = rs.getString(1);

pwds = rs.getString(2);

departmt = rs.getString(3);

if ((uname.equals(users)) && (pword.equals(pwds)) && dept.equals(departmt)) {

flag = true;
```

## Customer Relationship Management

```
System.out.println("success");

break;

}

}

if (flag == true) {

    if (dept.equals("HR")) {

        this.setVisible(false);

        new selectclient(dept,users).setVisible(true);

    } else if (dept.equals("Operation")) {

        this.setVisible(false);

        new OA_select(dept, users).setVisible(true);

    } else if (dept.equals("Accounts")) {

        this.setVisible(false);

        new OA_select(dept, users).setVisible(true);

    } else if (dept.equals("Business Analystist")) {

        this.setVisible(false);

        new avd().setVisible(true);

    } else if (dept.equals("Technical")) {

        this.setVisible(false);

        System.out.println("successssful login");

        new OA_select(dept, users).setVisible(true);

    }

}

else{

JOptionPane.showMessageDialog(null, "Wrong user name or Password or Department");
```

## Customer Relationship Management

```
}

} catch (Exception e) {

JOptionPane.showMessageDialog(this, e.getMessage());

}

}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {

this.setVisible(false);

new homepage().setVisible(true);

}

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {

user.setText("");

pwd.setText("");

}

private void userActionPerformed(java.awt.event.ActionEvent evt) {

}

public static void main(String args[]) {

try {

for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {

if ("Nimbus".equals(info.getName())) {

javax.swing.UIManager.setLookAndFeel(info.getClassName());

break;

}

}

} catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
```

## Customer Relationship Management

```
} catch (InstantiationException ex) {  
  
java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);  
  
} catch (IllegalAccessException ex) {  
  
java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);  
  
} catch (javax.swing.UnsupportedLookAndFeelException ex) {  
  
java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);  
  
}  
  
java.awt.EventQueue.invokeLater(new Runnable() {  
  
public void run() {  
  
new Login().setVisible(true);  
  
}  
  
});  
  
}  
  
private javax.swing.JComboBox depart;  
  
private javax.swing.JButton jButton1;  
  
private javax.swing.JButton jButton2;  
  
private javax.swing.JButton jButton3;  
  
private javax.swing.JLabel jLabel1;  
  
private javax.swing.JLabel jLabel2;  
  
private javax.swing.JLabel jLabel4;  
  
private javax.swing.JPasswordField pwd;  
  
private javax.swing.JTextField user;  
  
}
```

**4.2 Testing (Sample Test Cases):-**

<b>Case ID</b>	<b>Description</b>	<b>Test Item</b>	<b>Pre Condition</b>	<b>Steps needed to be done</b>	<b>Expected result</b>	<b>Result</b>
1.	Adding Employee	Add button	Employee must be added	It should show the employee in the view employee section	Employee must be added	Pass
2.	Making new payment	Save button	New payment must be done	Payment section should be updated by the accounts department	New payment should be done	Pass
3.	Adding new project to the client	Save the client	Project should be added	Adding the project details of the client and saving them	Saving the project details	Pass
4.	Database linking	Check the entered data is being saved	View the data stored	Check whether the entered data is being visible or not	Show the database	Pass
5.	Save & exit	Check whether data is being saved and exit	Check the data	Check whether the fields entered are saved	Click on logout and exit	Pass



## Chapter 5 : User Manual

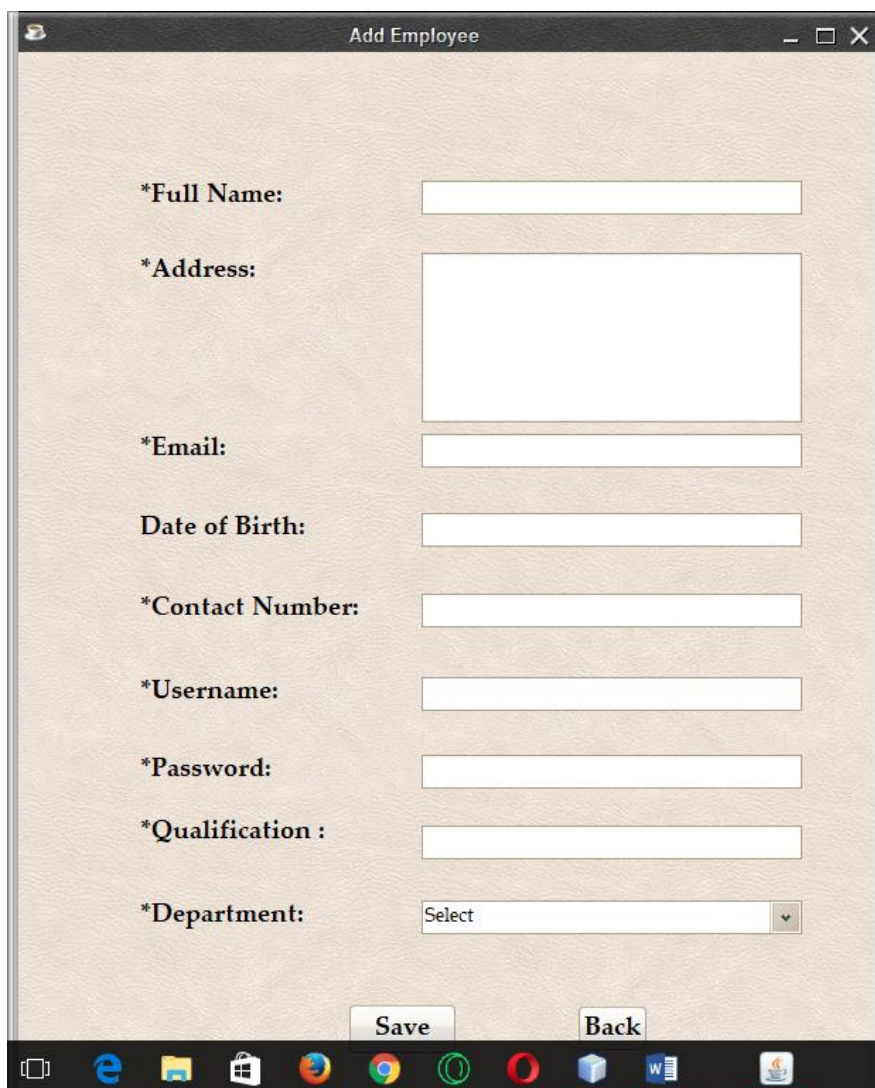


This is the main page appears when you open the project. If you are admin then click on admin to login and if you are employee the click on login.



The image shows a window titled "Admin Login". Inside the window, the text "Enter Password" is centered. Below this text is a single-line text input field. At the bottom of the window, there are two buttons: "Login" and "Back".

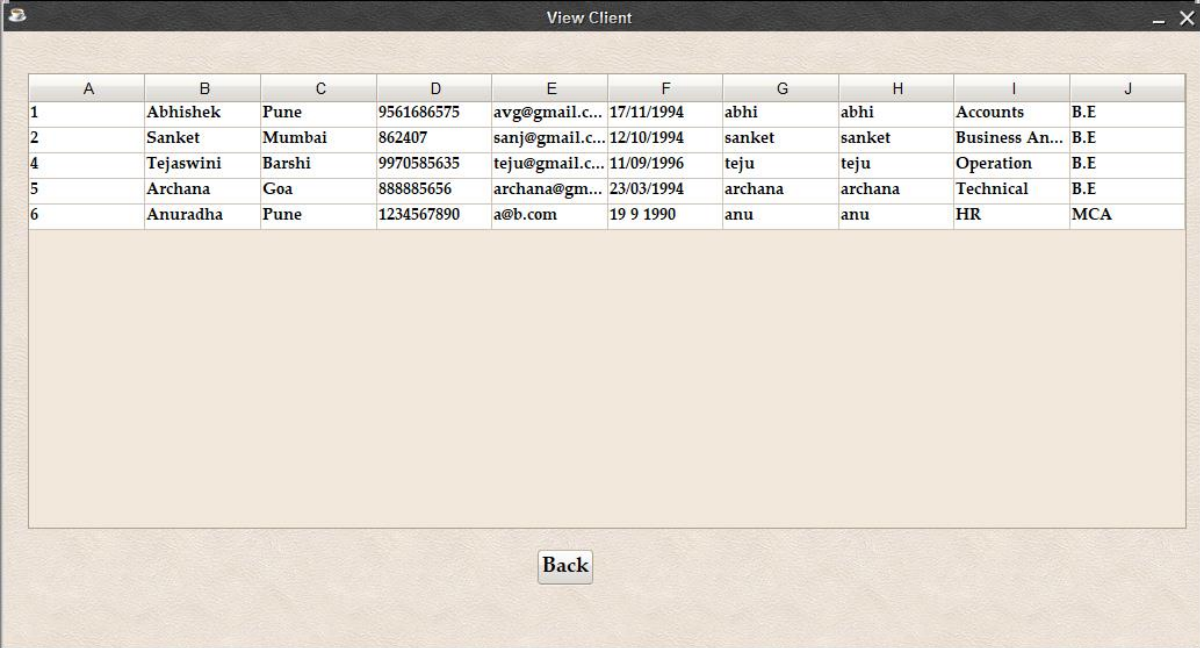
This is the admin login page.



The image shows a window titled "Add Employee". Inside the window, there are several form fields with labels on the left and input fields on the right. The labels are: "\*Full Name:", "\*Address:", "\*Email:", "Date of Birth:", "\*Contact Number:", "\*Username:", "\*Password:", "\*Qualification :", and "\*Department:". The input fields are: a single-line text box for Full Name, a multi-line text box for Address, a single-line text box for Email, a single-line text box for Date of Birth, a single-line text box for Contact Number, a single-line text box for Username, a single-line text box for Password, a single-line text box for Qualification, and a dropdown menu for Department with the text "Select" and a downward arrow. At the bottom of the window, there are two buttons: "Save" and "Back".

## Customer Relationship Management

This the form to add an employee this form is field by admin.

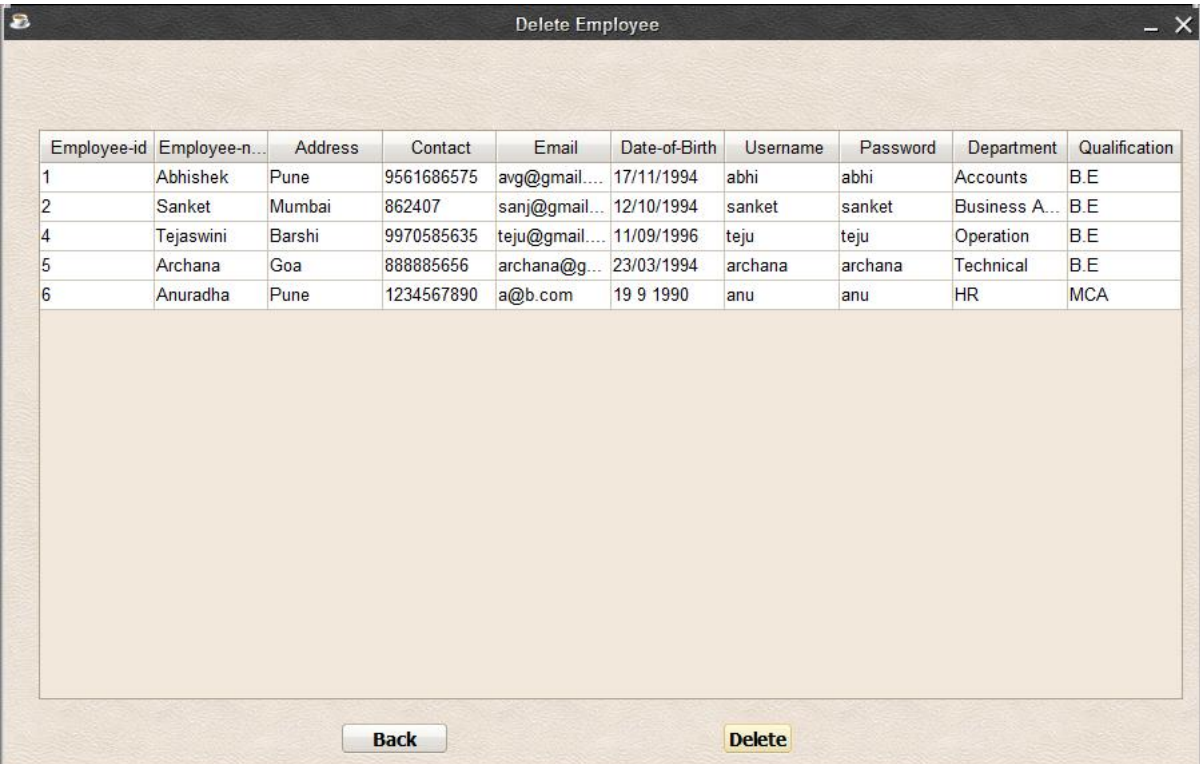


The screenshot shows a window titled "View Client" with a table containing employee information. The table has 10 columns labeled A through J. The data is as follows:

	A	B	C	D	E	F	G	H	I	J
1		Abhishek	Pune	9561686575	avg@gmail.c...	17/11/1994	abhi	abhi	Accounts	B.E
2		Sanket	Mumbai	862407	sanj@gmail.c...	12/10/1994	sanket	sanket	Business An...	B.E
4		Tejaswini	Barshi	9970585635	teju@gmail.c...	11/09/1996	teju	teju	Operation	B.E
5		Archana	Goa	888885656	archana@gm...	23/03/1994	archana	archana	Technical	B.E
6		Anuradha	Pune	1234567890	a@b.com	19 9 1990	anu	anu	HR	MCA

Below the table is a large empty rectangular area and a "Back" button at the bottom center.

This is view of all employee added by the admin



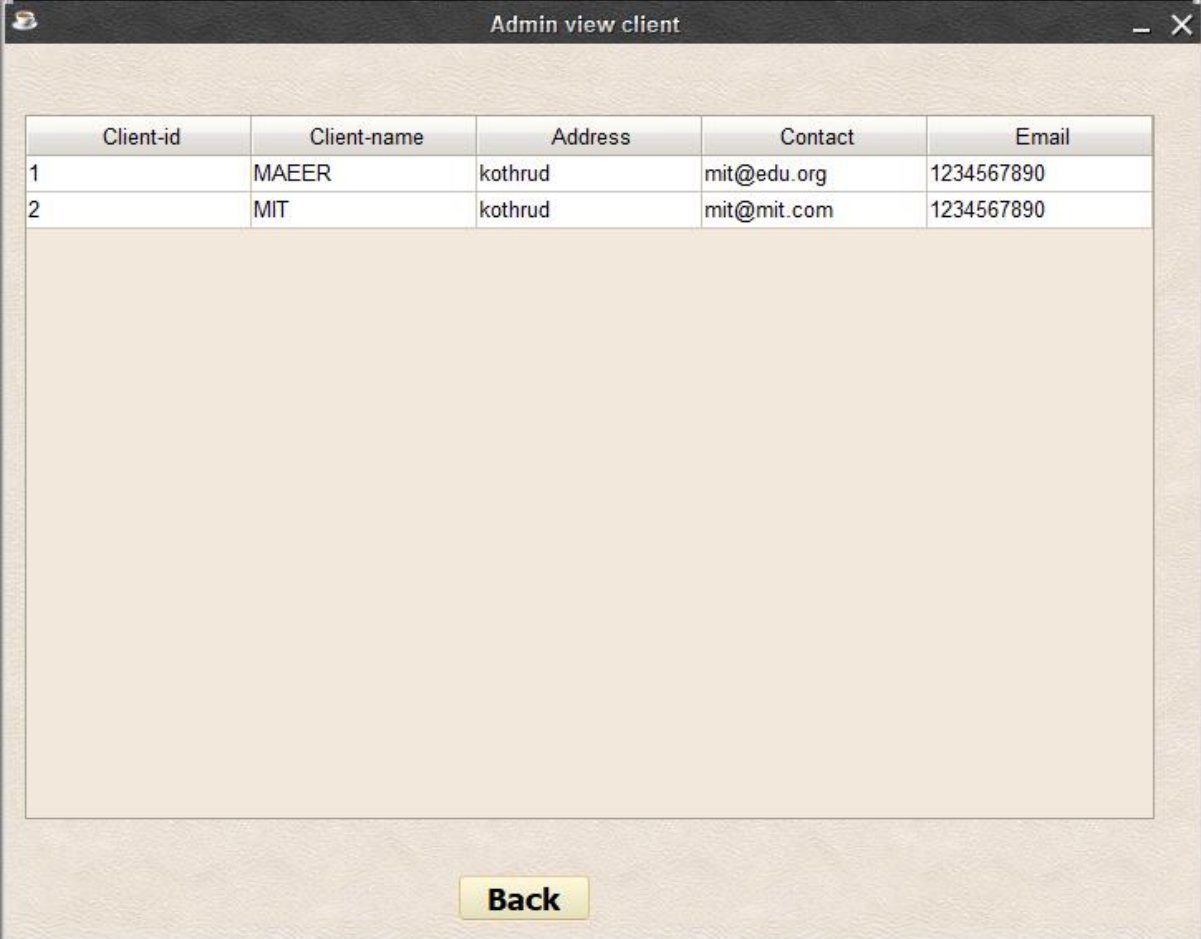
The screenshot shows a window titled "Delete Employee" with a table containing employee information. The table has 10 columns: Employee-id, Employee-n..., Address, Contact, Email, Date-of-Birth, Username, Password, Department, and Qualification. The data is as follows:

Employee-id	Employee-n...	Address	Contact	Email	Date-of-Birth	Username	Password	Department	Qualification
1	Abhishek	Pune	9561686575	avg@gmail....	17/11/1994	abhi	abhi	Accounts	B.E
2	Sanket	Mumbai	862407	sanj@gmail...	12/10/1994	sanket	sanket	Business A...	B.E
4	Tejaswini	Barshi	9970585635	teju@gmail...	11/09/1996	teju	teju	Operation	B.E
5	Archana	Goa	888885656	archana@g...	23/03/1994	archana	archana	Technical	B.E
6	Anuradha	Pune	1234567890	a@b.com	19 9 1990	anu	anu	HR	MCA

Below the table is a large empty rectangular area. At the bottom, there are two buttons: "Back" and "Delete".

This is the view to delete the employee and is deleted by admin only.






The screenshot shows a window titled "Admin view client" with a table containing client information. The table has five columns: Client-id, Client-name, Address, Contact, and Email. There are two rows of data. Below the table is a large empty rectangular area, and at the bottom center is a yellow "Back" button.

Client-id	Client-name	Address	Contact	Email
1	MAEER	kothrud	mit@edu.org	1234567890
2	MIT	kothrud	mit@mit.com	1234567890

Back

This is the view of client and admin has a right to only view the little details on client.



The screenshot shows a window titled "Login Form" with three input fields: "User Name:" (highlighted in yellow), "Password:", and "Department:" (a dropdown menu with "Select" and a downward arrow). At the bottom are three buttons: "Login", "Clear", and "Cancel".

User Name:

Password:

Department:  ▼

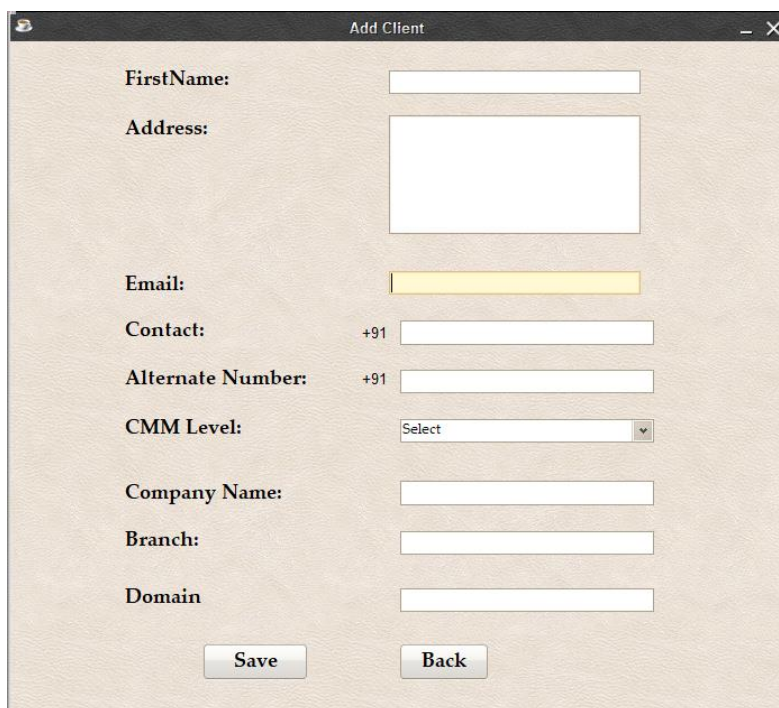
Login Clear Cancel

## Customer Relationship Management

This is the login page for employee .The employee should enter the username , password and select the department .

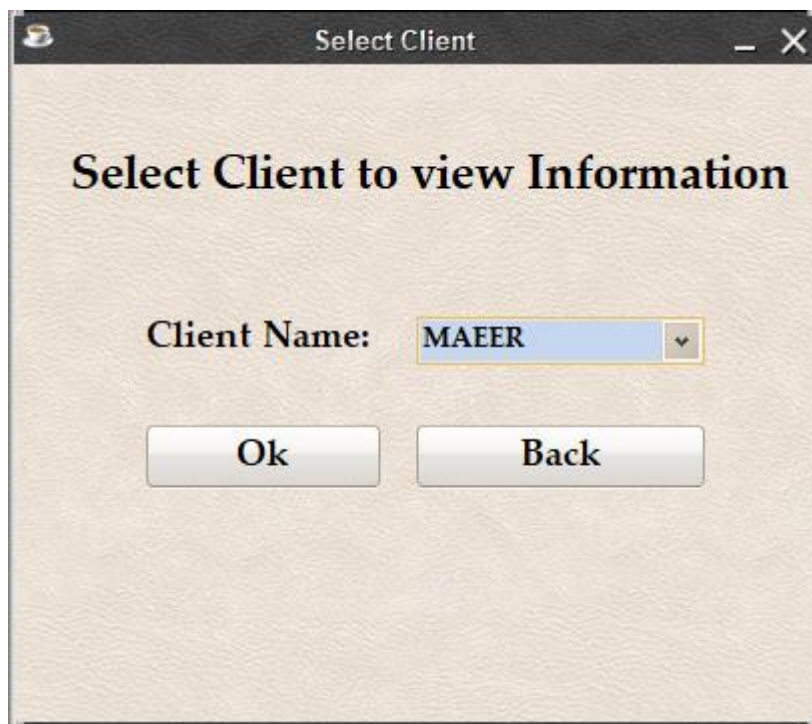


This is the home page of business analyst he has the right to add ,view and delete client.

A screenshot of a web application window titled "Add Client". The window has a dark header bar with a small icon on the left and standard window controls (minimize, maximize, close) on the right. The main content area is a light beige color and contains a form with the following fields and controls:

- FirstName:** A text input field.
- Address:** A large text input field.
- Email:** A text input field with a yellow background.
- Contact:** A text input field with a "+91" prefix.
- Alternate Number:** A text input field with a "+91" prefix.
- CMM Level:** A dropdown menu with "Select" as the current value.
- Company Name:** A text input field.
- Branch:** A text input field.
- Domain:** A text input field.
- Buttons:** Two buttons labeled "Save" and "Back" are located at the bottom of the form.

Adding the client by business analyst.



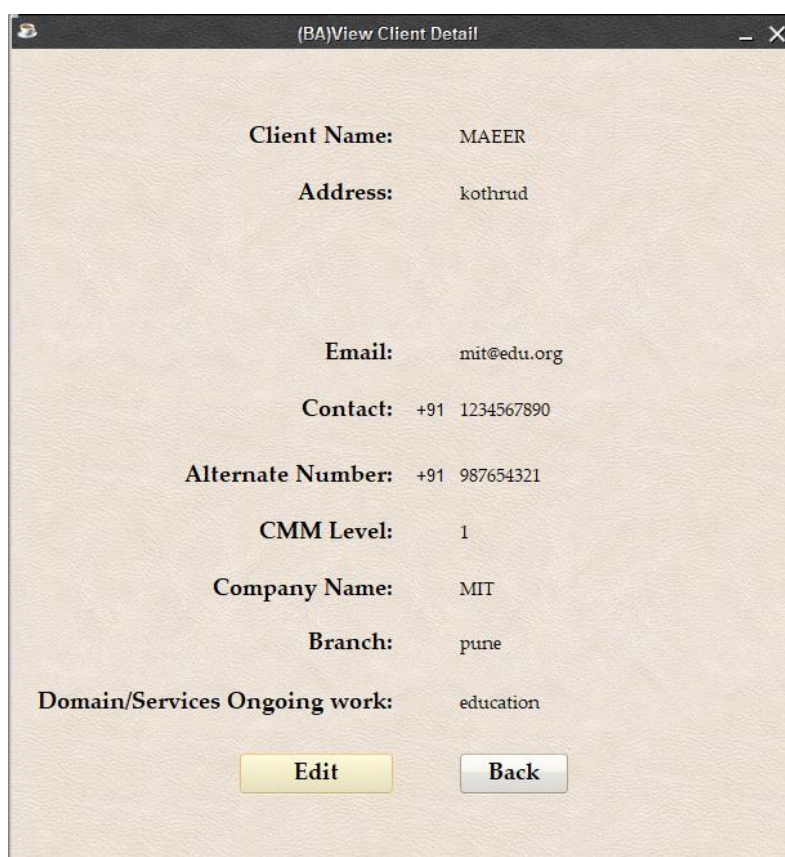
Select Client

Select Client to view Information

Client Name: MAEER

Ok Back

Business analyst client view home page



(BA)View Client Detail

Client Name: MAEER

Address: kothrud

Email: mit@edu.org

Contact: +91 1234567890

Alternate Number: +91 987654321

CMM Level: 1

Company Name: MIT

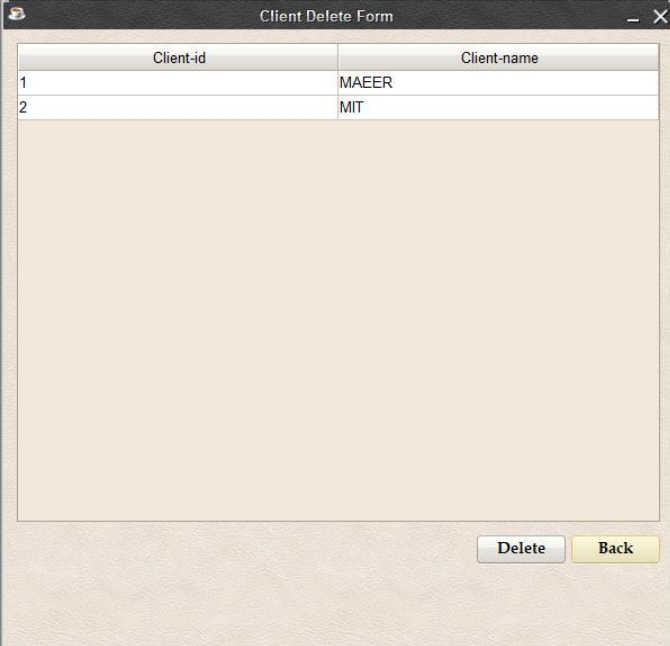
Branch: pune

Domain/Services Ongoing work: education

Edit Back

Business analyst client details view

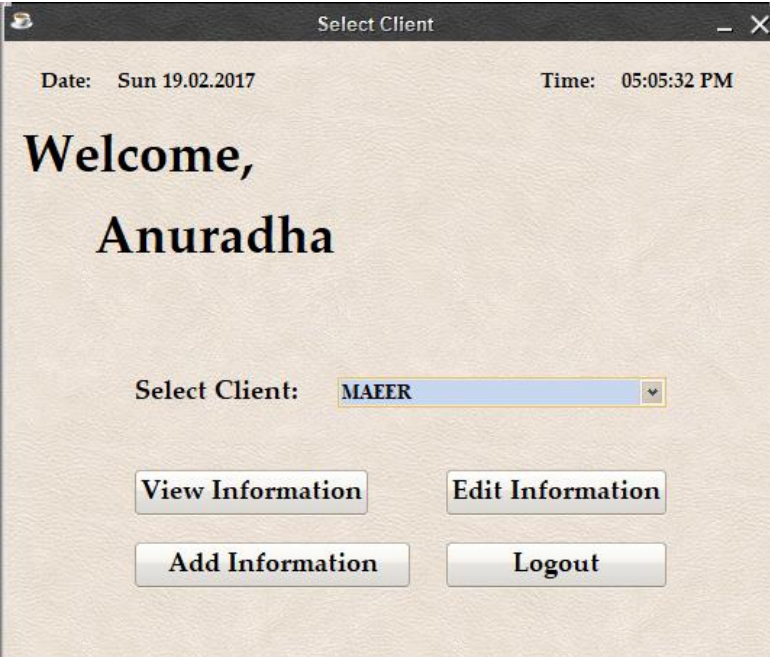
## Customer Relationship Management



A screenshot of a web application window titled "Client Delete Form". It features a table with two columns: "Client-id" and "Client-name". The table contains two rows: the first row has "1" under "Client-id" and "MAEER" under "Client-name"; the second row has "2" under "Client-id" and "MIT" under "Client-name". Below the table is a large, empty, light-brown rectangular area. At the bottom right of the window are two buttons: "Delete" and "Back".

Client-id	Client-name
1	MAEER
2	MIT

Delete client option in business analyst view



A screenshot of a web application window titled "Select Client". At the top, it displays "Date: Sun 19.02.2017" and "Time: 05:05:32 PM". Below this, a large "Welcome, Anuradha" message is shown. Underneath the welcome message is a "Select Client:" label followed by a dropdown menu currently showing "MAEER". At the bottom of the window, there are four buttons arranged in a 2x2 grid: "View Information", "Edit Information", "Add Information", and "Logout".

This is the home page of Human Resource



## Customer Relationship Management

Client Detail

Name:

MAEER

Address:

kothrud

Email:

mit@edu.org

CMM Level:

1

Contact:

12345...

Alternate no:

987654321

Company Name:

MIT

Branch:

pune

Domain:

education

Save

Back

History:

too good!

Feedback:

nice

BackGround:

very nice

Comment:

best

HR can only add the history ,background ,feedback ,comment about the client.

(HR)View Client Detail

Name:

MAEER

Address:

kothrud

Email:

mit@edu.org

CMM Level:

1

Contact:

12345...

Alternate no:

987654321

Company Name:

MIT

Branch:

pune

Domain:

education

History:

too good!

BackGround:

very nice

Feedback:

nice

Comment:

best

Back

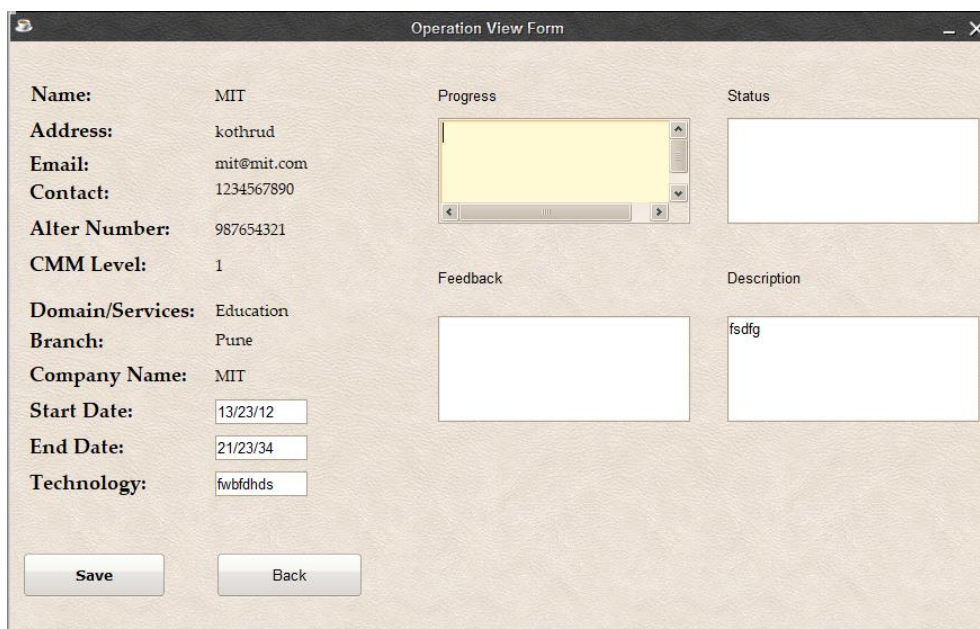
## HR client details view




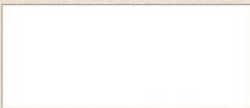
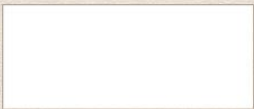
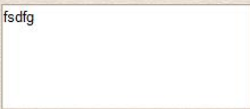


The screenshot shows a window titled "Select client". At the top, it displays the date "Sun 19.02.2017" and the time "05:02:08 PM". The main content area has a large "WELCOME teju !" message. Below this, there are two dropdown menus: "Select Client Name:" with "MIT" selected, and "Select Project:" which is currently empty. At the bottom, there are three buttons: "View", "Add Project", and "LogOut".

This is the home page of operation employee



The screenshot shows a window titled "Operation View Form". It contains a form with the following fields and values:

Name:	MIT	Progress	Status
Address:	kothrud		
Email:	mit@mit.com		
Contact:	1234567890	Feedback	Description
Alter Number:	987654321		
CMM Level:	1		
Domain/Services:	Education		
Branch:	Pune		
Company Name:	MIT		
Start Date:	13/23/12		
End Date:	21/23/34		
Technology:	fwbfldhds		

At the bottom of the form, there are two buttons: "Save" and "Back".

This is the view of operation form he has the right to comment on the status and progress of the client project he can add feedback and description on the client.operation must add start ,end date of the project and the technology on which the client project is based on.

The screenshot shows a web application window titled "Select client". At the top, it displays the date "Sun 19.02.2017" and the time "05:04:23 PM". The main heading is "WELCOME archana !". Below this, there are two dropdown menus: "Select Client Name:" with "MIT" selected, and "Select Project:" with "dhds" selected. At the bottom, there are two buttons: "View" and "LogOut".


This is the home page of technical employee

The screenshot shows a web application window titled "(technical)View Client Detail". It displays a list of client details in a key-value format:

Client Name:	MIT
Address:	kothrud
Email:	mit@mit.com
Contact:	mit@mit.com
Project Name:	dhds
Technology:	21/23/34
Start Date:	fwbfdhds
End Date:	13/23/12
Project Description:	fsdfg

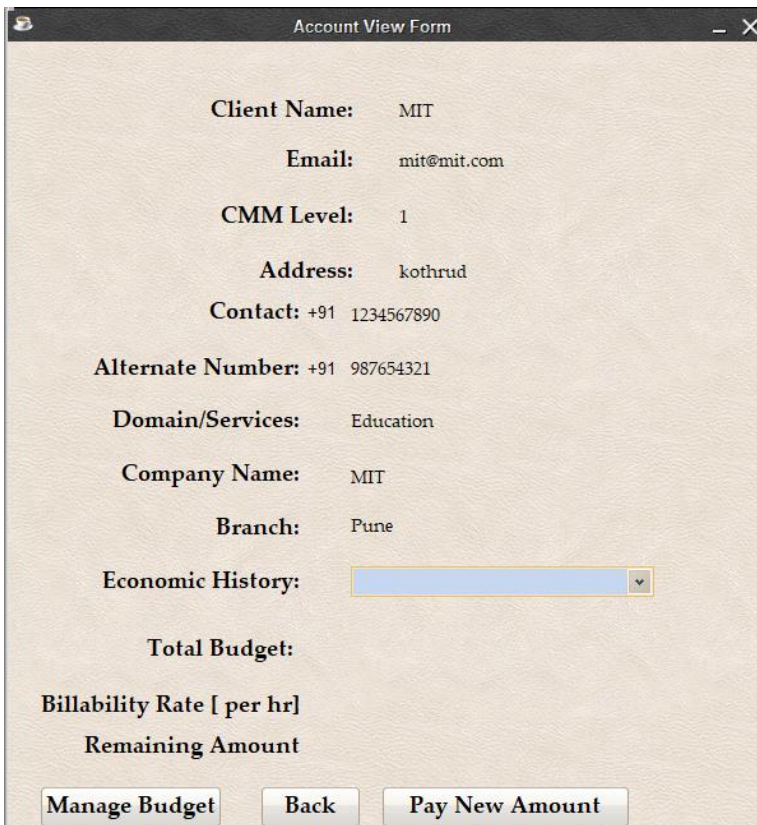
At the bottom left, there is a yellow "Back" button.

Technical employee has only the right to view the details of the client .



The screenshot shows a window titled "Select client". At the top, it displays the date "Sun 19.02.2017" and the time "05:07:36 PM". Below this, a large "WELCOME abhi !" message is centered. There are two dropdown menus: "Select Client Name:" with "MIT" selected, and "Select Project:" with "dhds" selected. At the bottom, there are two buttons: "View" and "LogOut".

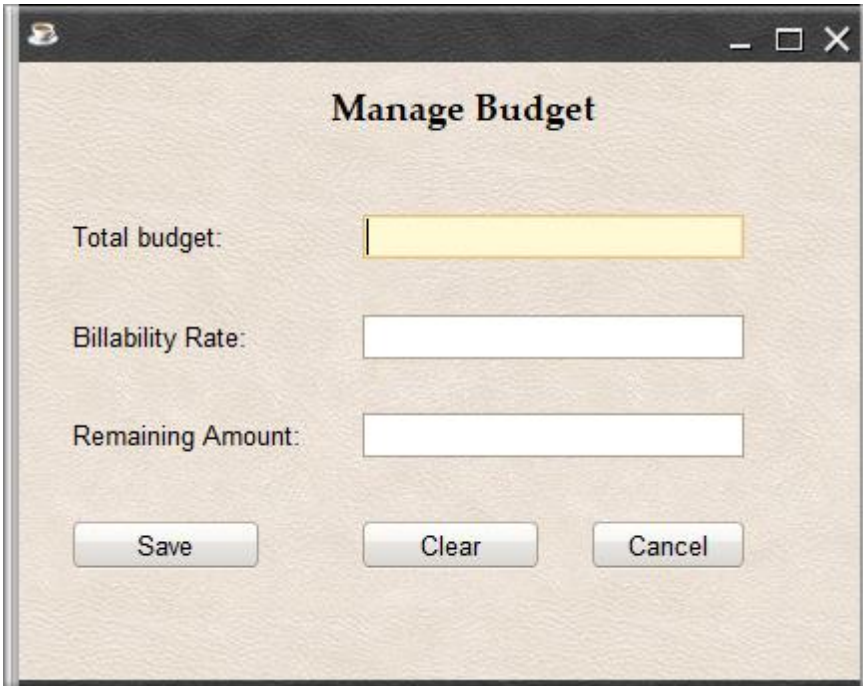
This is the home page of account employee.



The screenshot shows a window titled "Account View Form". It displays the following client details: Client Name: MIT, Email: mit@mit.com, CMM Level: 1, Address: kothrud, Contact: +91 1234567890, Alternate Number: +91 987654321, Domain/Services: Education, Company Name: MIT, Branch: Pune, and Economic History: (empty dropdown). At the bottom, there are three buttons: "Manage Budget", "Back", and "Pay New Amount".

Account employee can view the some details of client and manage the payment deiatls of the client.





The image shows a software window titled "Manage Budget". It has a standard Windows-style title bar with a minimize button, a maximize button, and a close button. The main area has a light beige background. At the top, the title "Manage Budget" is centered in a bold, black, serif font. Below the title, there are three labels on the left: "Total budget:", "Billability Rate:", and "Remaining Amount:". Each label is followed by a text input field. The "Total budget:" field is highlighted with a yellow background. At the bottom of the form, there are three buttons: "Save", "Clear", and "Cancel", arranged horizontally. The buttons have a light gray background and a subtle gradient.

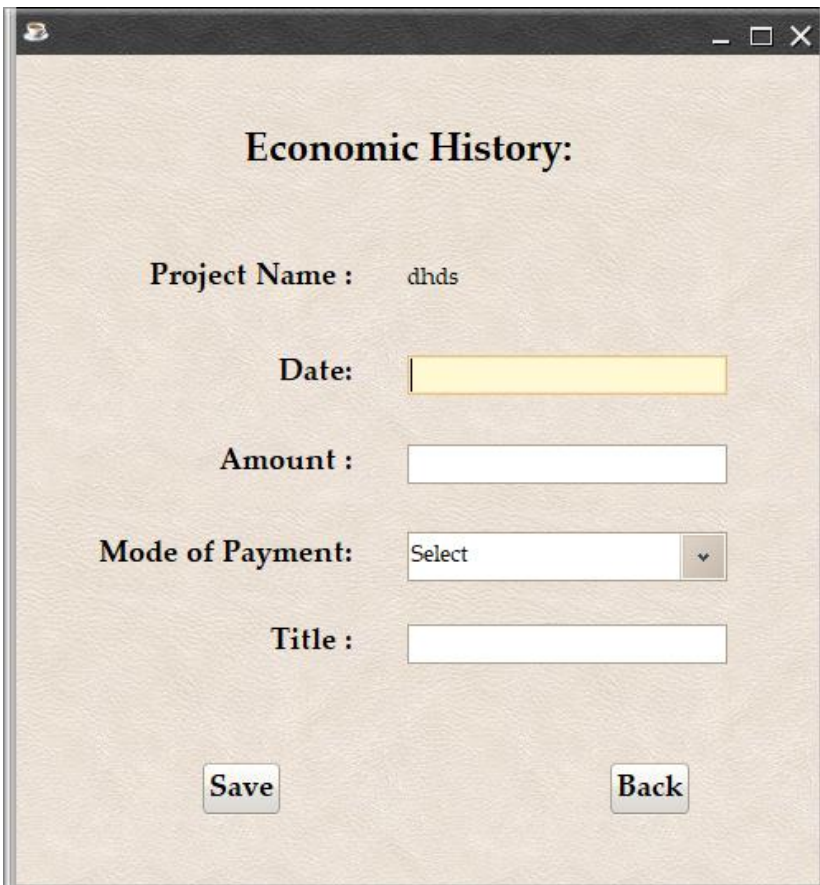
**Manage Budget**

Total budget:

Billability Rate:

Remaining Amount:

Manage budget form of annount department



The image shows a software window titled "Economic History:". It has a standard Windows-style title bar with a minimize button, a maximize button, and a close button. The main area has a light beige background. At the top, the title "Economic History:" is centered in a bold, black, serif font. Below the title, there are five labels on the left: "Project Name :", "Date:", "Amount :", "Mode of Payment:", and "Title :". Each label is followed by a text input field. The "Project Name :" field contains the text "dhds". The "Date:" field is highlighted with a yellow background. The "Mode of Payment:" field is a dropdown menu with the text "Select" and a small downward arrow. At the bottom of the form, there are two buttons: "Save" and "Back", arranged horizontally. The buttons have a light gray background and a subtle gradient.

**Economic History:**

Project Name : dhds

Date:

Amount :

Mode of Payment:  ▼

Title :

Economic history form of client

## **Advanatages And Limitations**

### **Advantages:-**

- Improved efficiency in serving clients
- Better internal communication
- User Friendly
- Easy to use
- Saves time
- Report generation is easy
- Less paper work
- Better client relationships

### **Limitations:-**

- Central database may be lost.
- Recquires training session to all the employess who are going to use this system
- Require continuous maintenance.
- Information updating, and system upgrading costly

## **Conclusion**

In today's world everything has become simple,easy and reliable because of Digitization. So we created a system which is helpful for organization as well as customers, which is called as Customer Relationship Management.

Customer relationship management has a certain impact on the profitability of the company. Average sale per customer increases by using CRM as per survey. Customers are attracted towards companies who use CRM as they are treated efficently in that organization.

The company should modern tools like data mining, contact center, e-CRM and web based survey tools.

## **Future Development**

There is scope in our project for future development for making systems more advance, efficient and practical

If we look at the future evolution of the CRM solutions and the future trends, we find that in the future, CRM would be web based and analytics driven. In other words, this means that CRM would be used along with Data Analytics and the emerging trend of Big Data that are the future drivers for CRM.

Following points are to be considered for the future development of CRM :-

- Acknowledge email enquiries
- Enable more effective communication between the client and the organization
- Making the CRM system web-based for easy tracking of the clients

## References

### Reference Books:

- **For java:**  
Java 2: The Complete Reference  
Java: A Beginner's Guide
- **For SQL:**  
MySQL, the complete reference  
Learning MySQL

### Research Papers:

- CRM implementation: the 2 strategic actors across universities

### Links:

[https://en.wikipedia.org/wiki/Customer\\_relationship\\_management](https://en.wikipedia.org/wiki/Customer_relationship_management)

[http://www.onebusiness.ca/sites/default/files/MEDI\\_Booklet\\_Customer\\_Relationship\\_Management\\_Accessible\\_E.pdf](http://www.onebusiness.ca/sites/default/files/MEDI_Booklet_Customer_Relationship_Management_Accessible_E.pdf)

[https://www.tutorialspoint.com/customer\\_relationship\\_management/customer\\_relationship\\_management\\_tutorial.pdf](https://www.tutorialspoint.com/customer_relationship_management/customer_relationship_management_tutorial.pdf)