Mini Project on POP

Course: Paradigms of Programming-1 (IT206)

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EXECUTIVE SUMMARY OF THE PROJECT

Synopsis

The mini project made by us is basically a demonstration of the banking systems around the world on a very basic scale, in which we have created an GUI (Graphic User Interface) using the eclipse platform of the JAVA and using the file management systems in JAVA. In it basically we have provided an interface to add, delete and view the different many accountants of a particular branch of a bank and also to add , delete and view the different bank holders and also store their account number , contact numbers and salaries in the file , just to use whenever required . We have used the file management system in JAVA to store the details of all the accountants and the account holders.

Introduction

The application that is the essence of the project works by defining various classes that even have further subclasses so as to modularize the final code. The code is written in a neat fashion with appropriate documentation. It provides a smooth, unfaltering user experience so as to facilitate its use among all age groups. The use of exception handling in Java is implemented so as to prevent the user from getting stuck at a process and understanding the use of the application in a more suitable manner. It eases the reading and understanding of naive runtime errors generated. The use of the multithreading concept in Java lets us use multiple threads at a single time and also lets us do multiple tasks simultaneously which is required in the banking system.

Problem Statement

The motivation behind the project was the lack of a simple well-written application to access and modify the details of the bank accountants of a particular branch and the bank account holders at the same time. It gave us enough motivation to make a GUI based application solving the same. In a world like this, can a whole lot of the population afford to waste the time to look in for the details in the hardcopied registers and look for all the accountants and the account holders when they can be easily maintained as a simple application?

Objective

The main objective of the project makes the user access the details of all the bank accountant the bank account holders. It also gives the accountant the authority to delete, modify the details of the account holders but the reverse is not possible because that's the hierarchy in a banking system works in that way. The aim is to give the accountant entire power virtually on the application. With our application we have achieved just that. The application could have been designed in many different ways, but we have produced a solution of an application that minimizes time complexity as well as space complexity by using Encapsulation, Polymorphism, Inheritance, and data abstraction. Along with these, Interfaces and various access modifiers have been implemented so as to maintain privacy and definition of access in different blocks Of code. The use of exception handling lets the user know exactly what went wrong.

METHOD

The application works by reading all the accountants and the account holders from a different file, which can be updated by the proprietor of the application and also the same power is given to the admin of the bank. The file has the information stored in a particular format, which is decoded by the string reader functions in the code. Each time we enter or want a output from the file we have to read this string reader function which is an in-built function of java and can be directly used just by importing the required files. If there exists an object for the particular accountant or the account holder already, then that object is accessed, instead of creating a new one. If an object that is not available in the file is to be accessed then that object needs to be created and then accessed hence the access to that object is not allowed and hence access is denied. We have to make sure that the object we want to access is present in the file system otherwise we have to create an object. The usage of various JFrames also enables us to increase our scope and work beyond the limitations of the java by using the GUI effectively to give user an attractive interface to work with and get the work done.
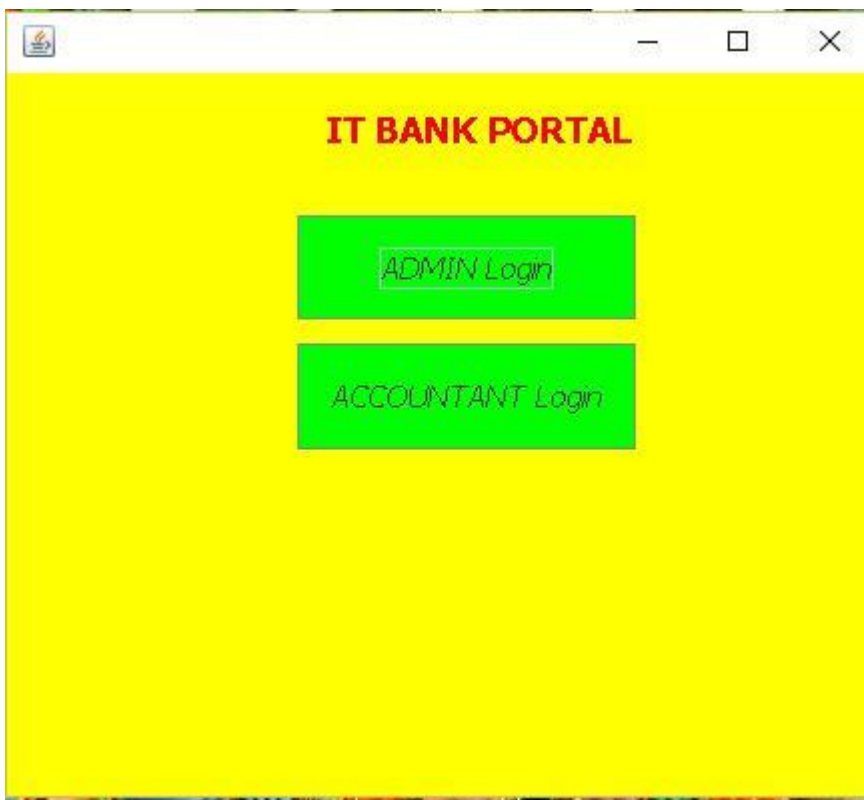
SYSTEM REQUIREMENTS:-

☐ Eclipse platform for JAVA GUI (Graphic User Interface)

☐ JDK(Java Development Kit)

☐ Windows Operating System

WORKS DONE :- (SCREENSHOT PF OUTPUT AND EXPLAINANTION)

1.Main Page:--

This is the main frame that will be displayed as soon as our project gets executed. This is also the first page and the directive page as it directs us either to the admin section or to the accountant section. It consists of two buttons ADMIN LOGIN AND ACCOUNTANT LOGIN.
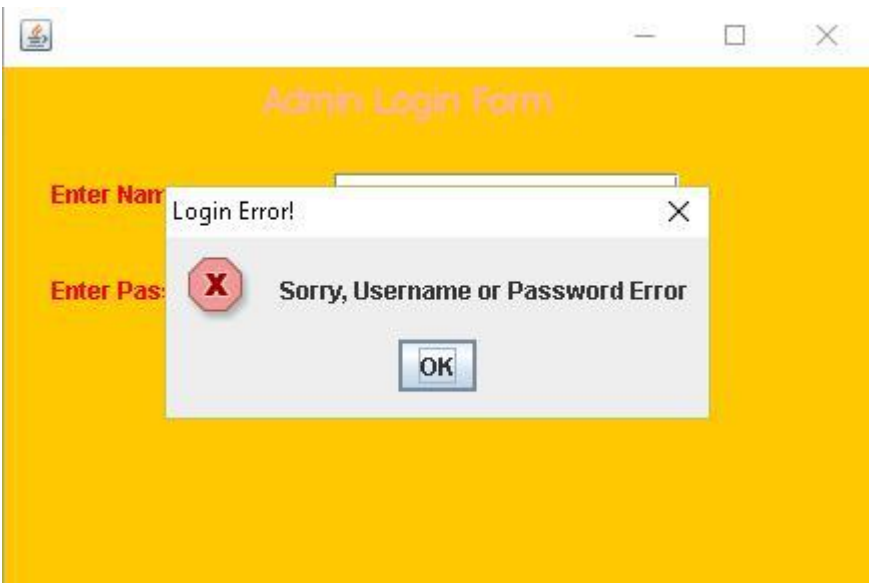
2.Admin login page:--

This is the page that gets displayed as soon as the user clicks on the admin login button.

It consists of 2 labels namely enter name, enter password, one button, one text field and one password field to get the password. To hide the password we have here used the echo Code property of the password field to encrypt it.

3.Login Failed:--

This page gets displayed as soon as the user gets the name and the password on the frame admin login form but the dialog box with the message "Sorry, Username or Password Error" only when either the password or the name entered is incorrect.

4.Admin login Section:--

This frame gets displayed when the user enters the correct name and the password. It has 4 different buttons which will direct to the things written on them. Only the ADMIN can enter the details of the Accountant and no one else. It consists of addition, viewing and removing of the accountant.

5.Add Accountant Page:--

This frame appears when the Accountant login button has been selected and the name and the password entered is correctly. This frame consists of the heading Add Accountant and it consists of 6 labels and 6 text fields and 2 buttons. This
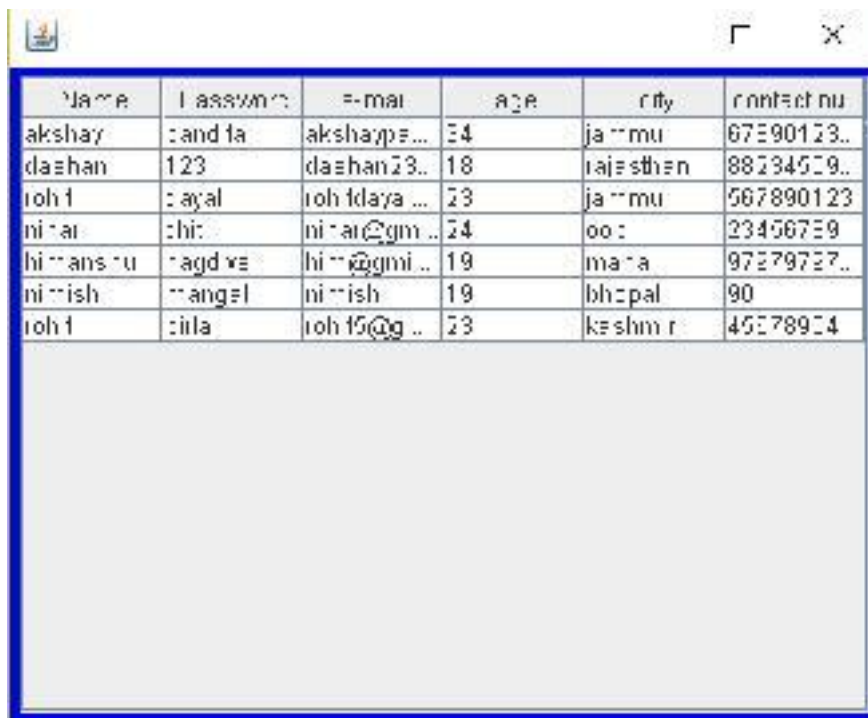
6.Accountant Added Succesfully:--
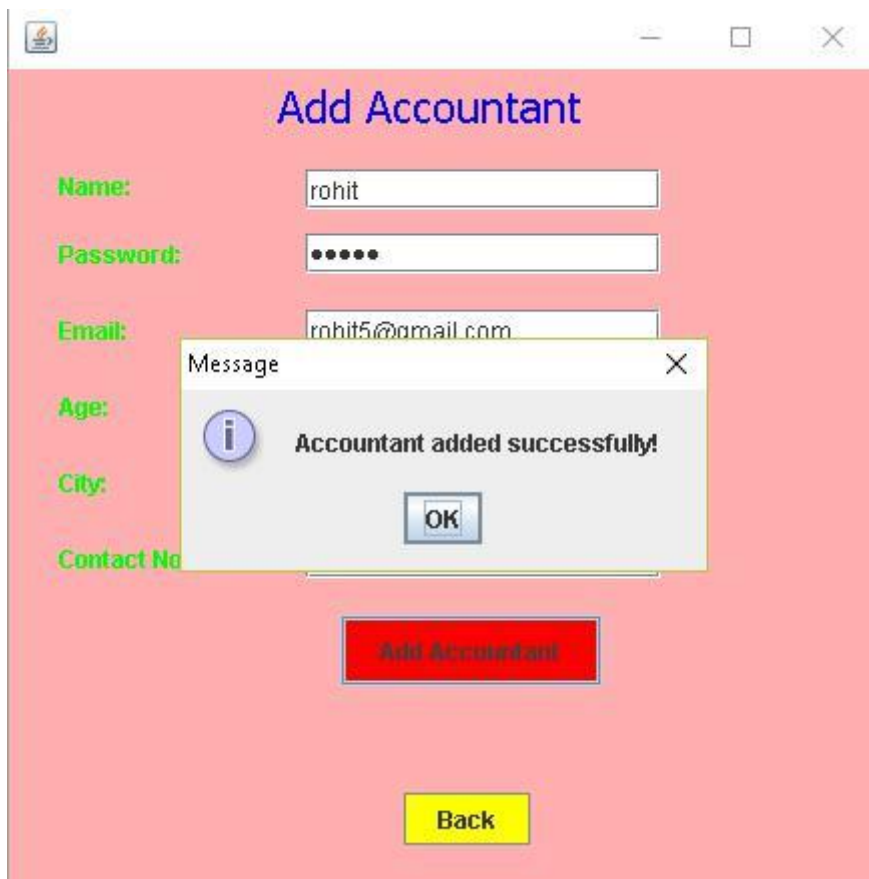
This frame appears when accountant is added successfully.

This frame comes under admin section. It consists of a dialog box which is used making a JOptionPane.showMessageDialog() function.

7.Database of all accountants:--

This is the database frame of all accountants under the institution.

This contains various information of the accountants.

8.Deleting an accountant:--

This frame comes under admin section.

This frame does the job of deleting an accountant.

This is in the control of admin whether to delete or not.

9.Record Deleted Sucessfully:--

This frame comes when record is deleted.

This frame confirms that record is deleted successfully.

10.Accountant Login Form:--

This frame can be chosen from main frame of the project.

In this frame name and password of accountant has to be given and if it is correct then accountant section frame pops up.

11.Accountant Section:--
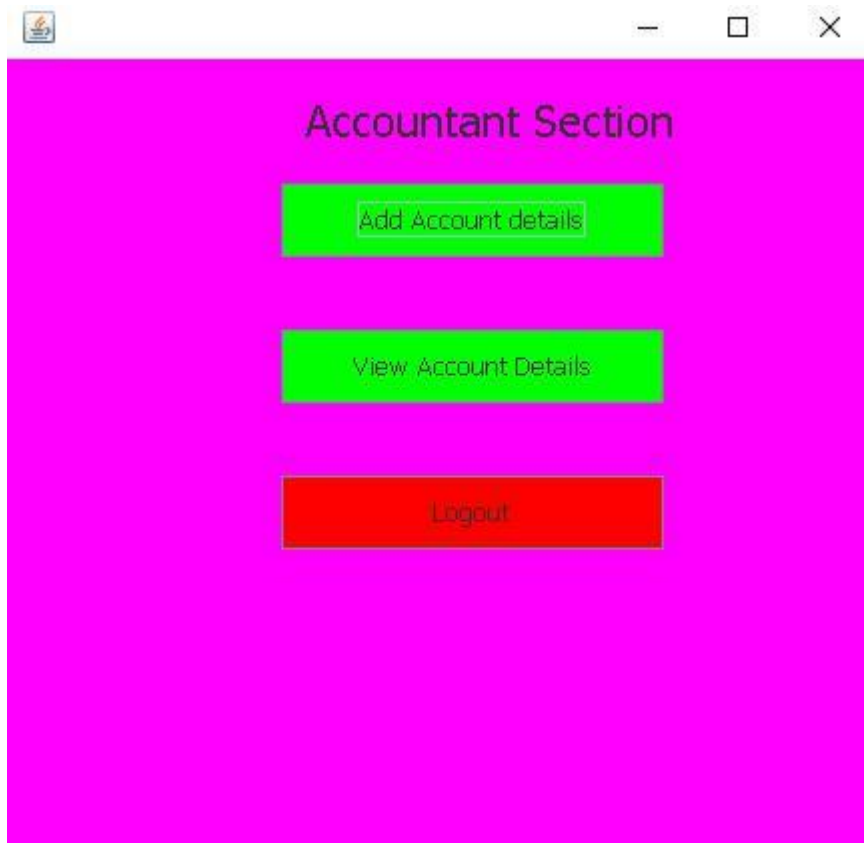
This frame comes under the accountant's control.

In this Frame the accountant can add and view users.

12.Add Account section:--

This frame appears when the button of add account is hit in the
Accountant section.

This frame saves the user's various details in the database.

13.Account Added Sucessfully:--
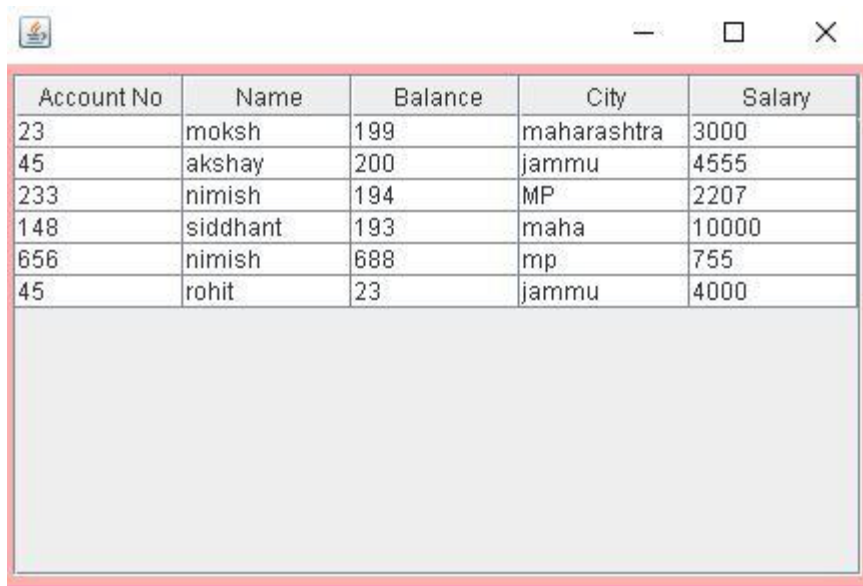
This frame confirms that user is added successfully.

This frame comes under accountant section.

14.Database of users:--

Account No	Name	Balance	City	Salary
23	moksh	199	maharashtra	3000
45	akshay	200	jammu	4555
233	nimish	194	MP	2207
148	siddhant	193	maha	10000
656	nimish	688	mp	755
45	rohit	23	jammu	4000

This is the database of users.

This comes under accountant view section.

FUTURE WORKS:-

☐ Since the project was made on a very basic level the obvious future work for the project would be to inculcate into it more complexities of the real life kind of banking system. Since the project we made was only for the students of the branch IT in its future work we can inculcate more branches too.

☐ Another future work that might sound interesting is to provide a server to it and make it using database like MySQL(My Structured Query Language) which is a database used oftenly with Java to store the details and the contents into it. It will be relatively easier for both the user as well as the programmer to use MySQL instead of file management system , this is because in the file management system we have to distinctly code to read in a string or anything else but when using MySQL we can directly use the add ,delete and modify inbuilt functions of the MySQL database system and connect it to the Java program through server and then take in the command from user in java and then pass on the same command to MySQL. Java and MySQL can be connected to each other through database connectivity which basically connects them through server.

RESULT AND DISCUSSION:-

The main result of the project is that we are now able to create a banking interface within a branch and between the accountants and the bank account holders. IT can also be used to display out the details of the users / bank account holders if we want to know something about them as and when we require.

The usage of JFrame also enables a good graphical user interface making the banking system look more attractive and hence more appealing to the user. Since we have used many components on the JFrame like the textfields, passwordfiels, radio buttons and other buttons. All the component within them contain a lot of properties which can further be used to make it more attractive and more user friendly and also more encrypted in a way hence ensuring the data encryption in the Java program.

CONCLUSION:-

This was our project ever involving the connectivity of a language with the file management systems. This surely taught us a lot of things like how to store the details and how to look for the details in the backup database and how to create database and how to back up our data regularly. BY this project we ended up making a IT portal which has a important significance and is very essential to us all. Through this project we have gathered more knowledge about java, eclipse and file systems in java. WE also got to know a bit more about databases and how do we use them.

This project also taught us how to work in a team and taught us various leadership skills and how to coordinate in a team and get the work done.

REFERENCES:-

- https://www.javatpoint.com/multithreading-in-java

- https://stackoverflow.com/

- http://www.geeksforgeeks.org/

- http://www.eclipse.org/downloads/eclipse-packages/

- https://www.tutorialspoint.com/java/java_exceptions.htm

- http://www.java2s.com/Tutorials/Java/Java_io/0960__Java_nio_FileSystem.htm

☐ CODE:-

1. Login Page:--

```java
import java.awt.BorderLayout;
import java.awt.Component;
import java.awt.EventQueue;

import javax.imageio.ImageIO;
import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.Icon; import
javax.swing.ImageIcon;
import javax.swing.JLabel;

import java.awt.Color;
import javax.swing.JButton;
import javax.swing.LayoutStyle.ComponentPlacement;

import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;
import java.io.File;
import java.io.IOException;

public class Bank extends JFrame {
    static Bank frame;
```

```java
private JPanel contentPane;

/**
 * Launch the application.
 */
public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable()
    {
        public void run() {
            try {
                frame= new Bank();

frame.getContentPane().setBackground(Color.yellow);
                frame.getContentPane();
                frame.setVisible(true);
            } catch (Exception e) {
                e.printStackTrace
                ();
            }
        }
    });
}

/**
 * Create the frame.
```

```java
    */

    public Bank() throws IOException {
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOS
        E); setBounds(100, 100, 450, 400);
        contentPane = new JPanel();
        contentPane.setBorder(new EmptyBorder(5, 5, 5,
        5)); setContentPane(contentPane);


        JLabel lblBankPortal = new JLabel(" IT BANK
PORTAL");
        lblBankPortal.setFont(new Font("Tahoma", Font.BOLD,
        18)); lblBankPortal.setForeground(Color.RED);


        JButton btnAdminLogin = new JButton("ADMIN Login");
    btnAdminLogin.addActionListener(new ActionListener() { public void
                actionPerformed(ActionEvent e) {
            AdminLogin.main(new String[]{});
            frame.dispose();
            }
        });
        btnAdminLogin.setFont(new Font("Tahoma", Font.ITALIC,
15));
        btnAdminLogin.setBackground(Color.GREEN);


        JButton btnAccountantLogin = new JButton("ACCOUNTANT
Login");
        btnAccountantLogin.addActionListener(new ActionListener()
            { public void actionPerformed(ActionEvent arg0) {
                AccountantLogin.main(new String[]{});
                    frame.dispose();
                }
        });
```

```java
btnAccountantLogin.setFont(new
Font("Tahoma", Font.ITALIC, 15));
		btnAccountantLogin.setBackground(Color.GREEN);

		GroupLayout gl_contentPane =
new GroupLayout(contentPane);
		gl_contentPane.setHorizontalGroup(

	gl_contentPane.createParallelGroup(Alignment.LEADING)

	.addGroup(gl_contentPane.createSequentialGroup()

	.addGroup(gl_contentPane.createParallelGroup(Alignment.LEADIN
G)

	.addGroup(gl_contentPane.createSequentialGroup()
						.addGap(64)

	.addComponent(lblBankPortal))

	.addGroup(gl_contentPane.createSequentialGroup()
						.addGap(140)

	.addGroup(gl_contentPane.createParallelGroup(Alignment.TRAIL
I NG, false)

	.addComponent(btnAccountantLogin, Alignment.LEADING,
GroupLayout.DEFAULT_SIZE, GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)

	.addComponent(btnAdminLogin, Alignment.LEADING,
GroupLayout.DEFAULT_SIZE, 135, Short.MAX_VALUE)
							)))
```

```
                                    .addContainerGap(95,
        Short.MAX_VALUE))
                    );
                    gl_contentPane.setVerticalGroup(

            gl_contentPane.createParallelGroup(Alignment.LEADING)

                .addGroup(gl_contentPane.createSequentialGroup()
                                .addContainerGap()
                                .addComponent(lblBankPortal)
                                .addGap(32)
                                .addComponent(btnAdminLogin,
        GroupLayout.PREFERRED_SIZE, 52,
        GroupLayout.PREFERRED_SIZE)

                .addPreferredGap(ComponentPlacement.UNRELATED)
                                    .addComponent(btnAccountantLogin,
        GroupLayout.PREFERRED_SIZE, 53,
        GroupLayout.PREFERRED_SIZE)
                                    .addContainerGap(70,
        Short.MAX_VALUE))
                    );
                    contentPane.setLayout(gl_contentPane);
            }
        }
```

2.ADMIN LOGIN:--

```java
        import java.awt.BorderLayout;
import java.awt.EventQueue;


import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
```

```java
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel; import
javax.swing.JOptionPane;

import java.awt.Font;
import java.awt.Color;
import javax.swing.JTextField;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;
import javax.swing.JPasswordField;

public class AdminLogin extends JFrame
    { static AdminLogin frame;
    private JPanel contentPane;
    private JTextField textField;
    private JPasswordField passwordField;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    frame = new AdminLogin();

    frame.getContentPane().setBackground(Color.ORANGE);
                    frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }
    public AdminLogin() {
```

```java
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setBounds(100, 100, 450, 300);
        contentPane = new JPanel();
        contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
        setContentPane(contentPane);

        JLabel lblAdminLoginForm = new JLabel("Admin Login Form");
        lblAdminLoginForm.setForeground(Color.PINK);
        lblAdminLoginForm.setFont(new Font("Tahoma", Font.PLAIN, 18));

        JLabel lblEnterName = new JLabel("Enter Name:");
        lblEnterName.setForeground(Color.RED);

        JLabel lblEnterPassword = new JLabel("Enter Password:");
        lblEnterPassword.setForeground(Color.RED);

        textField = new JTextField();
        textField.setColumns(10);

        JButton btnLogin = new JButton("Login");
        btnLogin.setBackground(Color.GREEN);
        btnLogin.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e)
                { String name=textField.getText(); String

password=String.valueOf(passwordField.getPassword());

    if(name.equals("popmam")&&password.equals("popproject")){
                    AdminSuccess.main(new String[]{});
                    frame.dispose();
            }else{
```

```java
                        JOptionPane.showMessageDialog(AdminLogin.this,
"Sorry, Username or Password Error","Login
Error!", JOptionPane.ERROR_MESSAGE);
                        textField.setText("");
                        passwordField.setText("");
                }
            }
        });


        passwordField = new JPasswordField();
        GroupLayout gl_contentPane = new GroupLayout(contentPane);
        gl_contentPane.setHorizontalGroup(
                gl_contentPane.createParallelGroup(Alignment.TRAILING)
                    .addGroup(gl_contentPane.createSequentialGroup()


    .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)


    .addGroup(gl_contentPane.createSequentialGroup()
                                    .addGap(124)


    .addComponent(lblAdminLoginForm))


    .addGroup(gl_contentPane.createSequentialGroup()
                                    .addGap(19)


    .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)


    .addComponent(lblEnterName)


    .addComponent(lblEnterPassword))
                                    .addGap(47)
```

```
            .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING,
false)

        .addComponent(passwordField)
                                        .addComponent(textField,
GroupLayout.DEFAULT_SIZE, 172, Short.MAX_VALUE))))
                    .addContainerGap(107, Short.MAX_VALUE))
                .addGroup(gl_contentPane.createSequentialGroup()
                    .addContainerGap(187, Short.MAX_VALUE)
                    .addComponent(btnLogin,
GroupLayout.PREFERRED_SIZE, 86, GroupLayout.PREFERRED_SIZE)
                    .addGap(151))
        );
        gl_contentPane.setVerticalGroup(
            gl_contentPane.createParallelGroup(Alignment.LEADING)
                .addGroup(gl_contentPane.createSequentialGroup()
                    .addComponent(lblAdminLoginForm)
                    .addGap(26)

    .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                        .addComponent(lblEnterName)
                        .addComponent(textField,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                    .addGap(28)

    .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                        .addComponent(lblEnterPassword)
                        .addComponent(passwordField,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                    .addGap(18)
```

```
                            .addComponent(btnLogin,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                            .addContainerGap(80, Short.MAX_VALUE))
            );
            contentPane.setLayout(gl_contentPane);
      }
}
```

3.Accountant Login:--

```
      import java.awt.BorderLayout;
import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel; import
javax.swing.JOptionPane;

import java.awt.Font;
import java.awt.Color;
import javax.swing.JTextField;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;
import javax.swing.JPasswordField;

public class AccountantLogin extends JFrame
      { static AccountantLogin frame;
      private JPanel contentPane;
      private JTextField textField;
      private JPasswordField passwordField;
```

```java
/**
 * Launch the application.
 */
public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
            try {
                frame = new AccountantLogin();

                frame.getContentPane().setBackground(Color.MAGENTA);
                frame.setVisible(true);
            } catch (Exception e) {
                e.printStackTrace();
            }
        }
    });
}

/**
 * Create the frame.
 */
public AccountantLogin() {
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(100, 100, 450, 300); contentPane = new
    JPanel(); contentPane.setBorder(new
    EmptyBorder(5, 5, 5, 5));
    setContentPane(contentPane);

    JLabel lblAdminLoginForm = new JLabel("Accountant Login
Form");
    lblAdminLoginForm.setForeground(Color.GRAY);
    lblAdminLoginForm.setFont(new Font("Tahoma", Font.PLAIN,
    18)); lblAdminLoginForm.setForeground(Color.GREEN);
```

```java
JLabel lblEnterName = new JLabel("Enter Name:");
lblEnterName.setForeground(Color.CYAN);


JLabel lblEnterPassword = new JLabel("Enter
Password:"); lblEnterName.setForeground(Color.CYAN);


textField = new JTextField();
textField.setColumns(10);


JButton btnLogin = new JButton("Login");
btnLogin.setBackground(Color.BLUE);
btnLogin.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e)
        { String name=textField.getText(); String

password=String.valueOf(passwordField.getPassword());
        System.out.println(name+" "+password);
        if(AccountantDao.validate(name, password))
        {
                AccountantSuccess.main(new String[]{});
                frame.dispose();
        }else{

    JOptionPane.showMessageDialog(AccountantLogin.this,
"Sorry, Username or Password Error","Login Error!",
JOptionPane.ERROR_MESSAGE);
                textField.setText("");
                passwordField.setText("");
        }
        }
});
```

```
        passwordField = new JPasswordField();
        GroupLayout gl_contentPane = new GroupLayout(contentPane);
        gl_contentPane.setHorizontalGroup(
                gl_contentPane.createParallelGroup(Alignment.TRAILING)
                    .addGroup(gl_contentPane.createSequentialGroup()

    .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)

    .addGroup(gl_contentPane.createSequentialGroup()
                                    .addGap(124)

    .addComponent(lblAdminLoginForm))

    .addGroup(gl_contentPane.createSequentialGroup()
                                    .addGap(19)

    .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)

    .addComponent(lblEnterName)

    .addComponent(lblEnterPassword))
                                    .addGap(47)

    .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING,
false)

    .addComponent(passwordField)
                                    .addComponent(textField,
GroupLayout.DEFAULT_SIZE, 172, Short.MAX_VALUE))))
                            .addContainerGap(107, Short.MAX_VALUE))
                    .addGroup(gl_contentPane.createSequentialGroup()
                            .addContainerGap(187, Short.MAX_VALUE)
```

```
                                                    .addComponent(btnLogin,
GroupLayout.PREFERRED_SIZE, 86, GroupLayout.PREFERRED_SIZE)
                                    .addGap(151))
                );
                gl_contentPane.setVerticalGroup(
                        gl_contentPane.createParallelGroup(Alignment.LEADING)
                                .addGroup(gl_contentPane.createSequentialGroup()
                                        .addComponent(lblAdminLoginForm)
                                        .addGap(26)


        .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                                                .addComponent(lblEnterName)
                                                .addComponent(textField,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                                        .addGap(28)


        .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                                                .addComponent(lblEnterPassword)
                                                .addComponent(passwordField,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                                        .addGap(18)
                                        .addComponent(btnLogin,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                        .addContainerGap(80, Short.MAX_VALUE))
                );
                contentPane.setLayout(gl_contentPane);
        }
}
```

4.Admin Success:--

```
        import java.awt.BorderLayout;
import java.awt.EventQueue;
```

```java
import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.GroupLayout;

import javax.swing.GroupLayout.Alignment;

import javax.swing.JLabel; import

java.awt.Color;

import java.awt.Font;

import javax.swing.JButton;

import java.awt.event.ActionListener;

import java.awt.event.ActionEvent;

import javax.swing.LayoutStyle.ComponentPlacement;
public class AdminSuccess extends JFrame {
	static AdminSuccess frame;
	private JPanel contentPane;

	public static void main(String[] args) {
		EventQueue.invokeLater(new Runnable() {
			public void run() {
				try {
					frame = new AdminSuccess();


	frame.getContentPane().setBackground(Color.RED);
					frame.setVisible(true);
				} catch (Exception e) {
					e.printStackTrace();
				}
			}
		});
	}

	public AdminSuccess() {
```

```java
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setBounds(100, 100, 450, 371);
contentPane = new JPanel();
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
setContentPane(contentPane);


JLabel lblAdminSection = new JLabel("Admin Section");
lblAdminSection.setFont(new Font("Tahoma", Font.PLAIN, 22));
lblAdminSection.setForeground(Color.BLUE);


JButton btnNewButton = new JButton("Add Accountant ");
btnNewButton.setFont(new Font("Tahoma", Font.PLAIN,
15)); btnNewButton.setBackground(Color.BLUE);
btnNewButton.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
        AccountantForm.main(new String[]{});
        frame.dispose();
        }
});


JButton btnViewAccountant = new JButton("View Accountant ");
btnViewAccountant.setBackground(Color.BLUE);
btnViewAccountant.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent arg0)
        { ViewAccountant.main(new String[]{}); }

});
btnViewAccountant.setFont(new Font("Tahoma", Font.PLAIN, 15));


JButton btnDeleteAccountant = new
JButton("Remove Accountant");
btnDeleteAccountant.setBackground(Color.BLUE);
btnDeleteAccountant.addActionListener(new ActionListener() {
```

```java
            public void actionPerformed(ActionEvent e) {
                DeleteAccountant.main(new String[]{});
                frame.dispose();
            }
        });
        btnDeleteAccountant.setFont(new Font("Tahoma", Font.PLAIN,
15));


        JButton btnLogout = new JButton("Logout");
        btnLogout.setBackground(Color.BLUE);
        btnLogout.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent arg0) {
                Bank.main(new String[]{});
                frame.dispose();
            }
        });
        btnLogout.setFont(new Font("Tahoma", Font.PLAIN, 15));
        GroupLayout gl_contentPane = new GroupLayout(contentPane);
        gl_contentPane.setHorizontalGroup(
            gl_contentPane.createParallelGroup(Alignment.TRAILING)
                .addGroup(gl_contentPane.createSequentialGroup()
                    .addContainerGap(150, Short.MAX_VALUE)
                    .addComponent(lblAdminSection,
GroupLayout.PREFERRED_SIZE, 151, GroupLayout.PREFERRED_SIZE)
                    .addGap(123))
                .addGroup(Alignment.LEADING,
gl_contentPane.createSequentialGroup()
                    .addGap(134)

    .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)
                        .addComponent(btnLogout,
GroupLayout.PREFERRED_SIZE, 181, GroupLayout.PREFERRED_SIZE)
```

```
                                        .addComponent(btnDeleteAccountant,
GroupLayout.PREFERRED_SIZE, 181, GroupLayout.PREFERRED_SIZE)
                                .addComponent(btnViewAccountant,
    GroupLayout.PREFERRED_SIZE, 181, GroupLayout.PREFERRED_SIZE)
                                .addComponent(btnNewButton,
GroupLayout.PREFERRED_SIZE, 181, GroupLayout.PREFERRED_SIZE))
                                .addContainerGap(109, Short.MAX_VALUE))
            );
            gl_contentPane.setVerticalGroup(
                    gl_contentPane.createParallelGroup(Alignment.LEADING)
                        .addGroup(gl_contentPane.createSequentialGroup()
                            .addComponent(lblAdminSection,
GroupLayout.PREFERRED_SIZE, 40, GroupLayout.PREFERRED_SIZE)
                            .addGap(11)
                            .addComponent(btnNewButton,
GroupLayout.PREFERRED_SIZE, 49, GroupLayout.PREFERRED_SIZE)
                            .addGap(18)
                            .addComponent(btnViewAccountant,
GroupLayout.PREFERRED_SIZE, 49, GroupLayout.PREFERRED_SIZE)
                            .addGap(18)
                            .addComponent(btnDeleteAccountant,
GroupLayout.PREFERRED_SIZE, 49, GroupLayout.PREFERRED_SIZE)
                            .addGap(18)
                            .addComponent(btnLogout,
GroupLayout.PREFERRED_SIZE, 49, GroupLayout.PREFERRED_SIZE)
                            .addContainerGap(21, Short.MAX_VALUE))
            );
            contentPane.setLayout(gl_contentPane);
        }
}
```

5.Accountant Success:--

```
    import java.awt.BorderLayout;
import java.awt.EventQueue;
```

```java
import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel; import
java.awt.Font;
import java.awt.Color;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;


public class AccountantSuccess extends JFrame {
	static AccountantSuccess frame;
	private JPanel contentPane;


	/**
	 * Launch the application.
	 */
	public static void main(String[] args) {
		EventQueue.invokeLater(new Runnable() {
			public void run() {
				try {
					frame = new AccountantSuccess();


	frame.getContentPane().setBackground(Color.MAGENTA);
					frame.setVisible(true);
				} catch (Exception e) {
					e.printStackTrace();
				}
			}
		});
```

```java
        }
```

```java
    /**
     * Create the frame.
     */
    public AccountantSuccess() {
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setBounds(100, 100, 450, 433); contentPane = new
        JPanel(); contentPane.setForeground(Color.GRAY);
        contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
        setContentPane(contentPane);


        JLabel lblAccountantSection = new JLabel("Accountant Section
");
        lblAccountantSection.setFont(new Font("Tahoma", Font.PLAIN,
22));


        JButton btnNewButton = new JButton("Add Account
        details"); btnNewButton.setBackground(Color.GREEN);
        btnNewButton.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
            Userform.main(new String[]{});
            frame.dispose();
            }
        });
        btnNewButton.setFont(new Font("Tahoma", Font.PLAIN, 13));

        JButton btnViewAccount = new JButton("View Account Details");
        btnViewAccount.setBackground(Color.GREEN);
        btnViewAccount.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent arg0) {
                ViewUser.main(new String[]{});
```

```
                }
        });
        btnViewAccount.setFont(new Font("Tahoma", Font.PLAIN, 13));


        JButton btnLogout = new JButton("Logout");
        btnLogout.setBackground(Color.RED);


        btnLogout.addActionListener(new ActionListener()
                { public void actionPerformed(ActionEvent e) {
                        Bank.main(new String[]{});
                        frame.dispose();
                }
        });
        btnLogout.setFont(new Font("Tahoma", Font.PLAIN, 13));
        GroupLayout gl_contentPane = new GroupLayout(contentPane);
        gl_contentPane.setHorizontalGroup(
                gl_contentPane.createParallelGroup(Alignment.LEADING)
                        .addGroup(Alignment.TRAILING,
gl_contentPane.createSequentialGroup()
                                .addContainerGap(81, Short.MAX_VALUE)
                                .addComponent(lblAccountantSection)
                                .addGap(54))
                        .addGroup(gl_contentPane.createSequentialGroup()
                                .addGap(132)


        .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)
                                        .addComponent(btnLogout,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                        .addComponent(btnViewAccount,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                        .addComponent(btnNewButton,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE))
                                .addContainerGap(101, Short.MAX_VALUE))
```

```
                    );
            gl_contentPane.setVerticalGroup(
                gl_contentPane.createParallelGroup(Alignment.LEADING)
                    .addGroup(gl_contentPane.createSequentialGroup()
                        .addContainerGap()
                        .addComponent(lblAccountantSection)
                        .addGap(18)
                        .addComponent(btnNewButton,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                        .addGap(36)
                        .addComponent(btnViewAccount,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                        .addGap(36)
                        .addComponent(btnLogout,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                        .addContainerGap(16, Short.MAX_VALUE))
            );
            contentPane.setLayout(gl_contentPane);
        }

}
```

6.Accountant Form:--

```
    import java.awt.BorderLayout;
import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel; import
javax.swing.JOptionPane;
```

```java
import java.awt.Font;
import java.awt.Color;
import javax.swing.JTextField;
import javax.swing.JPasswordField;
import javax.swing.LayoutStyle.ComponentPlacement;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;


public class AccountantForm extends JFrame {
        static AccountantForm frame;
        private JPanel contentPane;
        private JTextField textField;
        private JTextField textField_1;
        private JTextField textField_2;
        private JTextField textField_3;
        private JTextField textField_4;
        private JPasswordField passwordField;

        /**
         * Launch the application.
         */
        public static void main(String[] args) {
                EventQueue.invokeLater(new Runnable() {
                        public void run() {
                                try {
                                        frame = new AccountantForm();

        frame.getContentPane().setBackground(Color.PINK);
                                        frame.setVisible(true);
                                } catch (Exception e) {
                                        e.printStackTrace();
                                }
```

```
                }
        });
}


/**
 * Create the frame.
 */
public AccountantForm() {
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setBounds(100, 100, 450, 450); contentPane = new
        JPanel(); contentPane.setBorder(new
        EmptyBorder(5, 5, 5, 5));
        setContentPane(contentPane);


        JLabel lblAddAccountant = new JLabel(" Add Accountant");
        lblAddAccountant.setForeground(Color.BLUE);
        lblAddAccountant.setFont(new Font("Tahoma", Font.PLAIN, 22));


        JLabel lblName = new JLabel("Name:");
        lblName.setForeground(Color.GREEN);
        JLabel lblPassword = new JLabel("Password:");
        lblPassword.setForeground(Color.GREEN);
        JLabel lblEmail = new JLabel("Email:");
        lblEmail.setForeground(Color.GREEN);
        JLabel lblAddress = new JLabel("Age:");
        lblAddress.setForeground(Color.GREEN);
        JLabel lblCity = new JLabel("City:");
        lblCity.setForeground(Color.GREEN);
        JLabel lblContactNo = new JLabel("Contact No:");
        lblContactNo.setForeground(Color.GREEN);
        textField = new JTextField();
        textField.setColumns(10);
```

```java
        textField_1 = new JTextField();
        textField_1.setColumns(10);


        textField_2 = new JTextField();
        textField_2.setColumns(10);


        textField_3 = new JTextField();
        textField_3.setColumns(10);


        textField_4 = new JTextField();
        textField_4.setColumns(10);


        passwordField = new JPasswordField();


        JButton btnNewButton = new JButton("Add
        Accountant"); btnNewButton.setBackground(Color.RED);
        btnNewButton.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e)
                { String name=textField.getText(); String

password=String.valueOf(passwordField.getPassword());
                String email=textField_1.getText();
                String address=textField_2.getText();
                String city=textField_3.getText();
                String contact=textField_4.getText();



                int i=AccountantDao.save(name, password, email, address,
city, contact);
                if(i>0){

        JOptionPane.showMessageDialog(AccountantForm.this,"Accountant
added successfully!");
```

```
                    AdminSuccess.main(new String[]{});
                    frame.dispose();


            }else{


    JOptionPane.showMessageDialog(AccountantForm.this,"Sorry, unable
to save!");
            }
            }
        });
        btnNewButton.setForeground(Color.DARK_GRAY);


        JButton btnBack = new JButton("Back");
        btnBack.setBackground(Color.YELLOW);
        btnBack.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
            AdminSuccess.main(new String[]{});
            frame.dispose();
            }
        });
        GroupLayout gl_contentPane = new GroupLayout(contentPane);
        gl_contentPane.setHorizontalGroup(
            gl_contentPane.createParallelGroup(Alignment.TRAILING)
                .addGroup(gl_contentPane.createSequentialGroup()
                    .addGap(20)

    .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING,
false)
                            .addComponent(lblPassword,
GroupLayout.DEFAULT_SIZE, 62, Short.MAX_VALUE)
                            .addComponent(lblName)
                            .addComponent(lblEmail,
GroupLayout.PREFERRED_SIZE, 31, GroupLayout.DEFAULT_SIZE)
```

```
                                   .addComponent(lblAddress,
GroupLayout.DEFAULT_SIZE,
GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                                   .addComponent(lblCity,
GroupLayout.PREFERRED_SIZE, 31, GroupLayout.PREFERRED_SIZE)
                                   .addComponent(lblContactNo,
GroupLayout.DEFAULT_SIZE,
GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
                        .addGap(58)


        .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING,
false)
                                   .addComponent(textField_4,
GroupLayout.DEFAULT_SIZE, 177, Short.MAX_VALUE)
                                   .addComponent(textField_3,
GroupLayout.DEFAULT_SIZE, 177, Short.MAX_VALUE)
                                   .addComponent(textField_2,
GroupLayout.DEFAULT_SIZE, 177, Short.MAX_VALUE)
                                   .addComponent(textField_1,
GroupLayout.DEFAULT_SIZE, 177, Short.MAX_VALUE)
                                   .addComponent(textField,
GroupLayout.DEFAULT_SIZE, 177, Short.MAX_VALUE)
                                   .addComponent(passwordField))
                        .addContainerGap(107, Short.MAX_VALUE))
                    .addGroup(gl_contentPane.createSequentialGroup()
                        .addContainerGap(151, Short.MAX_VALUE)
                        .addComponent(lblAddAccountant)
                        .addGap(144))
                    .addGroup(gl_contentPane.createSequentialGroup()
                        .addContainerGap(160, Short.MAX_VALUE)
                        .addComponent(btnNewButton,
GroupLayout.PREFERRED_SIZE, 131, GroupLayout.PREFERRED_SIZE)
                        .addGap(133))
```

```
                    .addGroup(gl_contentPane.createSequentialGroup()
                        .addContainerGap(200, Short.MAX_VALUE)
                        .addComponent(btnBack)
                        .addGap(169))
        );
        gl_contentPane.setVerticalGroup(
            gl_contentPane.createParallelGroup(Alignment.LEADING)
                .addGroup(gl_contentPane.createSequentialGroup()
                    .addComponent(lblAddAccountant)
                    .addGap(18)


    .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)


    .addGroup(gl_contentPane.createSequentialGroup()
                                .addComponent(lblName)
                                .addGap(18)
                                .addComponent(lblPassword))


    .addGroup(gl_contentPane.createSequentialGroup()
                                .addComponent(textField,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE)


    .addPreferredGap(ComponentPlacement.UNRELATED)
                                .addComponent(passwordField,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE)))
                    .addGap(18)


    .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                        .addComponent(lblEmail)
```

```
                                           .addComponent(textField_1,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                            .addGap(18)


        .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                                .addComponent(lblAddress)
                                .addComponent(textField_2,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                            .addGap(18)


        .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                                .addComponent(lblCity)
                                .addComponent(textField_3,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                            .addGap(18)


        .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                                .addComponent(lblContactNo)
                                .addComponent(textField_4,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                            .addGap(18)
                            .addComponent(btnNewButton,
GroupLayout.PREFERRED_SIZE, 36, GroupLayout.PREFERRED_SIZE)

        .addPreferredGap(ComponentPlacement.RELATED, 57,
Short.MAX_VALUE)
                                .addComponent(btnBack)
                                .addGap(19))
            );
```

```
                contentPane.setLayout(gl_contentPane);
    }


}
```

7.Accountant Dao:--

```
        import java.nio.channels.FileChannel;
import java.util.Scanner; import
java.io.BufferedReader;
import java.io.BufferedWriter;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.FileWriter;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.io.FileReader;
import java.io.IOException;
import java.io.LineNumberReader;
import java.io.Reader;
public class AccountantDao {


        public static int save(String name,String password,String
email,String address,String city,String contact){
                int status=0;
                try{
                        String x=name+' '+password+' '+email+' '+address+' '+city+'
'+contact;
                        File file = new File("accountant.txt");
                        FileWriter fw = new FileWriter(file.getAbsoluteFile(), true);
                        BufferedWriter bw = new BufferedWriter(fw);
                        bw.write('\n');
                        bw.write(x);
                        bw.close();
                        fw.close();
                        status=1;
                        return status;
                }catch(Exception
                e){System.out.println(e);} return status;
        }
        public static int delete(String id){
                int status=0;
                try{File file = new File("accountant.txt");
         InputStream in = new FileInputStream(file);
     Reader reader = new InputStreamReader(in);
```

```java
  Reader buffer = new BufferedReader(reader);
int c = 0;
int k=1, n=-1;
String name1="";
int flag=0;
while((c = buffer.read()) != -1) {
    char character = (char) c;
    if (character==' ')
    {
      k++;
      continue;
    }
    if(k==1){
      name1=name1+character;
    }
    if(character=='\n'){
      k=1;
      n+=1;
      if(id.equals(name1)){
            reader.close();
            buffer.close();
            in.close();
            flag=1;
            break;
      }
        name1="";
    }
}
    if(name1.equals(id)){
            if(flag==0){
            n+=1;
            }
            in.close();
            reader.close();
            buffer.close();
    }else{
            reader.close();
            buffer.close();
            in.close();
            return(0);
    }
     int lineNo = 0;
     File file2 = new File("accountant.txt");
     FileReader reader2 = new FileReader(file2);
     Scanner scan = new Scanner(reader2);
     StringBuilder sb = new StringBuilder("");
     while(scan.hasNextLine()) {
         String line = scan.nextLine();
```

```
        System.out.println(scan);
    if (lineNo != n)
          sb.append(line).append(System.getProperty("line.separator"));
    lineNo+=1;
    }
    System.out.println(sb);
    FileWriter writter = new FileWriter(file2);
    writter.write(sb.toString());
    writter.close();
    try {
            File file21 = new File("fileToTruncate");
            FileChannel fileChannel = new
FileOutputStream(file, true).getChannel();
            fileChannel.truncate(fileChannel.size() - 1); //Removes last character
            fileChannel.close();
        }
        catch (FileNotFoundException ex) {

        }
        catch (IOException ex) {

        }
    return(1);
        }catch(Exception
        e){System.out.println(e);} return status;
    }

    public static boolean validate(String name,String
        password){ try{
                File file = new File("accountant.txt");
         InputStream in = new FileInputStream(file);
        Reader reader = new InputStreamReader(in);
        Reader buffer = new BufferedReader(reader);
        int c = 0;
        int k=1;
        String name1="",password1="";
        while((c = buffer.read()) != -1) {
           char character = (char) c;
           if (character==' ')
           {
                k++;
                continue;
           }
           if(k==1){
                name1=name1+character;
           }
           if(k==2){
                password1=password1+character;
```

```
                }
            if(character=='\n'){
                k=1;
                if(name.equals(name1) &&
                    password1.equals(password1)){ in.close();
                    return(true);
                }
            name1="";
            password1="";
        }
    }
            if(name1.equals(name) && password1.equals(password)){
                in.close();
                return(true);
            }else{
                in.close();
                return(false);
            }
        }
        catch(Exception e){System.out.println(e);}
        return false;
    }

}
```

8.Delete Accountant:--

```
    import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel; import
javax.swing.JOptionPane;
import javax.swing.JTextField;
import javax.swing.JButton;

import java.awt.Font;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class DeleteAccountant extends JFrame
    { static DeleteAccountant frame;
    private JPanel contentPane;
    private JTextField textField;
```

```java
/**
 * Launch the application.
 */
public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
            try {
                frame = new DeleteAccountant();

                frame.getContentPane().setBackground(Color.yellow);
                frame.setVisible(true);
            } catch (Exception e) {
                e.printStackTrace();
            }
        }
    });
}

/**
 * Create the frame.
 */
public DeleteAccountant() {
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(100, 100, 450, 300); contentPane = new
    JPanel(); contentPane.setBorder(new
    EmptyBorder(5, 5, 5, 5));
    setContentPane(contentPane);

    JLabel lblEnterId = new JLabel("Enter name:");
    lblEnterId.setForeground(Color.GREEN);

    textField = new JTextField();
    textField.setColumns(10);

    JButton btnDelete = new JButton("Delete");
    btnDelete.setBackground(Color.GREEN);
    btnDelete.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e)
        { String sid=textField.getText();
        if(sid==null||sid.trim().equals("")){

        JOptionPane.showMessageDialog(DeleteAccountant.this,"Id can't be
            blank"); }else{
                int i=AccountantDao.delete(sid);
                if(i>0){

        JOptionPane.showMessageDialog(DeleteAccountant.this,"Record deleted
        successfully!");
```

```
                                    }else{

        JOptionPane.showMessageDialog(DeleteAccountant.this,"Unable to
delete given id!");
                                        }
                                    }
                                }
                        });
                        btnDelete.setFont(new Font("Tahoma", Font.PLAIN, 13));

                        JButton btnNewButton = new JButton("Back");
                        btnNewButton.setBackground(Color.GREEN);
                        btnNewButton.addActionListener(new ActionListener() {
                                public void actionPerformed(ActionEvent e)
                                        { AdminSuccess.main(new String[]{});
                                        frame.dispose();
                                }
                        });
                        btnNewButton.setFont(new Font("Tahoma", Font.PLAIN, 13));
                        GroupLayout gl_contentPane = new GroupLayout(contentPane);
                        gl_contentPane.setHorizontalGroup(
                                gl_contentPane.createParallelGroup(Alignment.LEADING)
                                        .addGroup(gl_contentPane.createSequentialGroup()
                                                .addGap(39)
                                                .addComponent(lblEnterId)
                                                .addGap(57)
                                                .addComponent(textField,
GroupLayout.PREFERRED_SIZE, 178, GroupLayout.PREFERRED_SIZE)
                                                .addContainerGap(107, Short.MAX_VALUE))
                                        .addGroup(Alignment.TRAILING,
gl_contentPane.createSequentialGroup()
                                                .addContainerGap(175, Short.MAX_VALUE)
                                                .addComponent(btnDelete,
GroupLayout.PREFERRED_SIZE, 109, GroupLayout.PREFERRED_SIZE)
                                                .addGap(140))
                                        .addGroup(Alignment.TRAILING,
gl_contentPane.createSequentialGroup()
                                                .addContainerGap(322, Short.MAX_VALUE)
                                                .addComponent(btnNewButton,
GroupLayout.PREFERRED_SIZE, 92, GroupLayout.PREFERRED_SIZE)
                                                .addContainerGap())
                        );
                        gl_contentPane.setVerticalGroup(
                                gl_contentPane.createParallelGroup(Alignment.LEADING)
                                        .addGroup(gl_contentPane.createSequentialGroup()
                                                .addGap(19)

        .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)
```

```
                              .addComponent(textField,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE)
                                        .addComponent(lblEnterId))
                          .addGap(33)
                          .addComponent(btnDelete,
GroupLayout.PREFERRED_SIZE, 33, GroupLayout.PREFERRED_SIZE)
                          .addGap(43)
                          .addComponent(btnNewButton)
                          .addContainerGap(78, Short.MAX_VALUE))
            );
            contentPane.setLayout(gl_contentPane);
      }
}
```

9.User Dao:--

```
      import java.io.BufferedReader;
import java.io.BufferedWriter;
import java.io.File;
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;

public class UserDao {
public static int save(String rollno,String name,String balance,String
state,String rank){
      int status=0;
      try{
            String x=rollno+' '+name+' '+balance+' '+state+'
            '+rank; File file = new File("user.txt");
            FileWriter fw = new FileWriter(file.getAbsoluteFile(), true);
            BufferedWriter bw = new BufferedWriter(fw);
            bw.write('\n');
            bw.write(x);
            bw.close();
            fw.close();
            status=1;
            return status;
      }
      catch(Exception e){System.out.println(e);}
      return status;
}
}
```

10.UserForm:--

```
      import java.awt.BorderLayout;
import java.awt.EventQueue;

import javax.swing.JFrame;
```

```java
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel; import
javax.swing.JOptionPane;

import java.awt.Font;
import java.awt.Color;

import javax.swing.JTextField;
import javax.swing.JButton;

import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

import javax.swing.LayoutStyle.ComponentPlacement;

public class Userform extends JFrame {
    static Userform frame;
    private JPanel contentPane;
    private JTextField textField;
    private JTextField textField_1;
    private JTextField textField_2;
    private JTextField textField_3;
    private JTextField textField_4;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    frame = new Userform();

    frame.getContentPane().setBackground(Color.YELLOW);
                    frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    /**
     * Create the frame.
     */
    public Userform() {
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setBounds(100, 100, 450, 404);
```

```java
contentPane = new JPanel();
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
setContentPane(contentPane);

JLabel lblAddAccounts = new JLabel("Add ACCOUNT");
lblAddAccounts.setForeground(Color.GRAY);
lblAddAccounts.setFont(new Font("Tahoma", Font.BOLD, 18));

JLabel lblAccountNo = new JLabel("Account
Number:"); lblAccountNo.setForeground(Color.RED);

JLabel lblName = new JLabel("Name:");
lblName.setForeground(Color.RED);

JLabel lblAge = new JLabel("Age");
lblAge.setForeground(Color.RED);

JLabel lblState = new JLabel("State of belonging:");
lblState.setForeground(Color.RED);

JLabel lblSalary = new JLabel("Salary");
lblSalary.setForeground(Color.RED);

textField = new JTextField();
textField.setColumns(10);

textField_1 = new JTextField();
textField_1.setColumns(10);

textField_2 = new JTextField();
textField_2.setColumns(10);

textField_3 = new JTextField();
textField_3.setColumns(10);

textField_4 = new JTextField();
textField_4.setColumns(10);

JButton btnAddAccounts = new JButton("Add Account");
btnAddAccounts.setBackground(Color.RED);
btnAddAccounts.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e)
        { String rollno=textField.getText(); String
        name=textField_1.getText();
        String age=textField_2.getText();
        String state=textField_3.getText();
        String rank=textField_4.getText();
```

```
                int i=UserDao.save(rollno, name, age, state, rank);
                if(i>0){
                        JOptionPane.showMessageDialog(Userform.this,"Account
added successfully!");
                        AccountantSuccess.main(new String[]{});
                        frame.dispose();

                }else{
                        JOptionPane.showMessageDialog(Userform.this,"Sorry,
unable to save!");
                }
                }
        });

        JButton btnBack = new JButton("Back");
        btnBack.setBackground(Color.GREEN);
        btnBack.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e) {
                        AccountantSuccess.main(new String[]{});
                        frame.dispose();
                }
        });

        GroupLayout gl_contentPane = new GroupLayout(contentPane);
        gl_contentPane.setHorizontalGroup(
                gl_contentPane.createParallelGroup(Alignment.TRAILING)
                        .addGroup(gl_contentPane.createSequentialGroup()

    .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)

    .addGroup(gl_contentPane.createSequentialGroup()
                                        .addGap(150)
                                        .addComponent(lblAddAccounts))

    .addGroup(gl_contentPane.createSequentialGroup()
                                        .addGap(18)

    .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING, false)
                                                .addComponent(lblName,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                                .addComponent(lblAccountNo)
                                                .addComponent(lblAge,
   GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                                .addComponent(lblState,
GroupLayout.DEFAULT_SIZE, 67, Short.MAX_VALUE)
                                                .addComponent(lblSalary,
GroupLayout.PREFERRED_SIZE, 55, GroupLayout.PREFERRED_SIZE))
                                        .addGap(47)
```

```
                .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)
                                        .addComponent(textField_4,
GroupLayout.PREFERRED_SIZE, 167, GroupLayout.PREFERRED_SIZE)
                                        .addComponent(textField_3,
GroupLayout.PREFERRED_SIZE, 167, GroupLayout.PREFERRED_SIZE)
                                        .addComponent(textField_2,
GroupLayout.PREFERRED_SIZE, 167, GroupLayout.PREFERRED_SIZE)
                                        .addComponent(textField_1,
GroupLayout.PREFERRED_SIZE, 167, GroupLayout.PREFERRED_SIZE)
                                        .addComponent(textField,
GroupLayout.PREFERRED_SIZE, 167, GroupLayout.PREFERRED_SIZE))))
                            .addContainerGap(125, Short.MAX_VALUE))
                    .addGroup(Alignment.LEADING,
gl_contentPane.createSequentialGroup()
                            .addGap(161)
                            .addComponent(btnAddAccounts,
GroupLayout.PREFERRED_SIZE, 110, GroupLayout.PREFERRED_SIZE)
                            .addContainerGap(162, Short.MAX_VALUE))
                    .addGroup(gl_contentPane.createSequentialGroup()
                            .addContainerGap(359, Short.MAX_VALUE)
                            .addComponent(btnBack)
                            .addContainerGap())
        );
        gl_contentPane.setVerticalGroup(
                gl_contentPane.createParallelGroup(Alignment.LEADING)
                    .addGroup(gl_contentPane.createSequentialGroup()
                            .addComponent(lblAddAccounts)
                            .addGap(18)

    .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                                .addComponent(lblAccountNo)
                                .addComponent(textField,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                            .addGap(18)

    .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                                .addComponent(lblName)
                                .addComponent(textField_1,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                            .addGap(18)

    .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                                .addComponent(lblAge)
```

```
                              .addComponent(textField_2,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                              .addGap(18)

      .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                              .addComponent(lblState)
                              .addComponent(textField_3,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                              .addGap(18)

      .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)
                              .addComponent(lblSalary)
                              .addComponent(textField_4,
GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,
GroupLayout.PREFERRED_SIZE))
                              .addGap(30)
                              .addComponent(btnAddAccounts,
GroupLayout.PREFERRED_SIZE, 31, GroupLayout.PREFERRED_SIZE)
                              .addPreferredGap(ComponentPlacement.RELATED)
                              .addComponent(btnBack)
                              .addContainerGap(53, Short.MAX_VALUE))
            );
            contentPane.setLayout(gl_contentPane);
      }

}
```

11.View Accountant:--

```
      import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.EventQueue;
import java.io.BufferedReader;
import java.io.File;
import java.io.FileInputStream;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.io.Reader;
import java.lang.Runnable;
import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.JScrollPane;
import javax.swing.border.EmptyBorder;
import javax.swing.JTable;

public class ViewAccountant extends JFrame {

      private JPanel contentPane;
```

```java
    private JTable table;

public static void main(String[] args) {
      EventQueue.invokeLater(new Runnable() {
            public void run() {
                  try {
                        ViewAccountant frame = new ViewAccountant();

frame.getContentPane().setBackground(Color.BLUE);
                        frame.setVisible(true);
                  } catch (Exception e) {
                        e.printStackTrace();
                  }
            }
      });
}

/**
 * Create the frame.
 */
public ViewAccountant() {
      setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
      setBounds(100, 100, 450, 300); contentPane = new
      JPanel(); contentPane.setBorder(new
      EmptyBorder(5, 5, 5, 5)); contentPane.setLayout(new
      BorderLayout(0, 0)); setContentPane(contentPane);




      String data[][]=null;
      String column[]=null;
      try{

            column = new String[6];
            column[0]="Name";
            column[1]="Password";
            column[2]="e-mail";
            column[3]="age";
            column[4]="city";
            column[5]="contact number";
            File file = new File("accountant.txt");
            InputStream in = new FileInputStream(file);
        Reader reader = new InputStreamReader(in);
        Reader buffer = new BufferedReader(reader);
            int k=1, n=0;
            int c=0;
```

```java
      int flag=0;
      while((c = buffer.read()) != -1) {
         char character = (char) c;
         if(character=='\n'){
           n+=1;
         }
      }
      if(n!=0)
        n+=1;
      in.close();
          reader.close();
          buffer.close();
      int rows=n;
      data=new String[rows][6];

      File file2 = new File("accountant.txt"); InputStream
          inp = new FileInputStream(file);
       Reader reader2 = new InputStreamReader(inp);
       Reader buffer2 = new BufferedReader(reader2);
      int c2 = 0;
      int k2=1;
      String name1="";
      int i=0,j=0;
      while((c2 = buffer2.read()) != -1) {
         char character = (char) c2;
         if (character==' ')
         {
           data[i][j]=name1;
           name1="";
           if(j+1<6)
                  j+=1;
           else
                  j=0;
         }
         else if (character=='\n'){
           data[i][j]=name1;
           name1="";
           i+=1;
           j=0;
         }
         else{
           name1=name1+character;
         }
         }

     data[i][j]=name1;
in.close();
      reader.close();
```

```
            buffer.close();


    }catch(Exception e){System.out.println(e);}

    table = new JTable(data,column);
    JScrollPane sp=new JScrollPane(table);

    contentPane.add(sp, BorderLayout.CENTER);
}

}
```

12.View User:--

```java
    import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.EventQueue;
import java.io.BufferedReader;
import java.io.File;
import java.io.FileInputStream;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.io.Reader;
import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.JScrollPane;
import javax.swing.border.EmptyBorder;
import javax.swing.JTable;

 public class ViewUser extends JFrame {

    private JPanel contentPane;
    private JTable table;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    ViewUser frame = new ViewUser();
                    frame.getContentPane().setBackground(Color.PINK);
                    frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }
```

```java
public ViewUser() {
        setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
        setBounds(100, 100, 450, 300); contentPane = new
        JPanel(); contentPane.setBorder(new
        EmptyBorder(5, 5, 5, 5)); contentPane.setLayout(new
        BorderLayout(0, 0)); setContentPane(contentPane);


        String data[][]=null;
        String column[]=null;
        try{

                column = new String[5];
                column[0]="Account No";
                column[1]="Name";
                column[2]="Balance";
                column[3]="City";
                column[4]="Salary";
                File file = new File("user.txt");
                InputStream in = new FileInputStream(file);
        Reader reader = new InputStreamReader(in);
        Reader buffer = new BufferedReader(reader);
                int k=1, n=0;
                int c=0;
        int flag=0;
        while((c = buffer.read()) != -1) {
           char character = (char) c;
           if(character=='\n'){
             n+=1;
           }
        }
        if(n!=0)
          n+=1;
        in.close();
            reader.close();
            buffer.close();
        int rows=n;
        data=new String[rows][5];

        File file2 = new File("user.txt");
            InputStream inp = new FileInputStream(file);
         Reader reader2 = new InputStreamReader(inp);
         Reader buffer2 = new BufferedReader(reader2);
        int c2 = 0;
        int k2=1;
        String name1="";
        int i=0,j=0;
        while((c2 = buffer2.read()) != -1) {
```

```java
            char character = (char) c2;
          if (character==' ')
          {
            data[i][j]=name1;
            name1="";
            if(j+1<5)
                    j+=1;
            else
                    j=0;
          }
          else if (character=='\n'){
            data[i][j]=name1;
            name1="";
            i+=1;
            j=0;
          }
          else{
            name1=name1+character;
          }
          }

      data[i][j]=name1;
    in.close();
        reader.close();
        buffer.close();

        }catch(Exception e){System.out.println(e);}

        table = new JTable(data,column);
        JScrollPane sp=new JScrollPane(table);

        contentPane.add(sp, BorderLayout.CENTER);
    }

}
```

THANK YOU