PRACTICAL 1

Aim: Develop the presentation layer of Library Management software application with suitable menus.

Library.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;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel;
import java.awt.Color;
import java.awt.Font;
import javax.swing.JButton;
import javax.swing.LayoutStyle.ComponentPlacement;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

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

	/**
	 * Launch the application.
	 */
	public static void main(String[] args) {
		EventQueue.invokeLater(new Runnable() {
			public void run() {
				try {
					frame= new Library();
					frame.setVisible(true);
				} catch (Exception e) {
					e.printStackTrace();
				}
			}
		});
	}

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

```
		JLabel lblLibraryManagement = new JLabel("Library Management ");
		lblLibraryManagement.setFont(new Font("Tahoma", Font.PLAIN, 18));
		lblLibraryManagement.setForeground(Color.GRAY);

		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.PLAIN, 15));

		JButton btnLibrarianLogin = new JButton("Librarian Login");
		btnLibrarianLogin.addActionListener(new ActionListener() {
			public void actionPerformed(ActionEvent arg0) {
				LibrarianLogin.main(new String[]{});
			}
		});
		btnLibrarianLogin.setFont(new Font("Tahoma", Font.PLAIN, 15));
		GroupLayout gl_contentPane = new GroupLayout(contentPane);
		gl_contentPane.setHorizontalGroup(
			gl_contentPane.createParallelGroup(Alignment.LEADING)
				.addGroup(gl_contentPane.createSequentialGroup()

	.addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)

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

	.addComponent(lblLibraryManagement))

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

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

	.addComponent(btnLibrarianLogin, 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(lblLibraryManagement)
					.addGap(32)
```

```
                                        .addComponent(btnAdminLogin,
GroupLayout.PREFERRED_SIZE, 52, GroupLayout.PREFERRED_SIZE)

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

AdminLogin.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;
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;

        /**
         * Launch the application.
         */
        public static void main(String[] args) {
                EventQueue.invokeLater(new Runnable() {
                        public void run() {
                                try {
                                        frame = new AdminLogin();
                                        frame.setVisible(true);
                                } catch (Exception e) {
                                        e.printStackTrace();
```

```
                }
            }
        });
    }

    /**
     * Create the frame.
     */
    public AdminLogin() {
        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.GRAY);
        lblAdminLoginForm.setFont(new Font("Tahoma", Font.PLAIN, 18));

        JLabel lblEnterName = new JLabel("Enter Name:");

        JLabel lblEnterPassword = new JLabel("Enter Password:");

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

        JButton btnLogin = new JButton("Login");
        btnLogin.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
            String name=textField.getText();
            String password=String.valueOf(passwordField.getPassword());
            if(name.equals("admin")&&password.equals("admin123")){
                AdminSuccess.main(new String[]{});
                frame.dispose();
            }else{
                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);
        }
```

```
}
```

AdminSuccess.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;
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;
import java.sql.*;
public class AdminSuccess extends JFrame {
	static AdminSuccess frame;
	private JPanel contentPane;

	/**
	 * Launch the application.
	 */
	public static void main(String[] args) {
		EventQueue.invokeLater(new Runnable() {
			public void run() {
				try {
					frame = new AdminSuccess();
					frame.setVisible(true);
				} catch (Exception e) {
					e.printStackTrace();
				}
			}
		});
	}

	/**
	 * Create the frame.
	 */
	public AdminSuccess() {
		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.GRAY);

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

		JButton btnViewLibrarian = new JButton("View Librarian");
		btnViewLibrarian.addActionListener(new ActionListener() {
			public void actionPerformed(ActionEvent arg0) {
			ViewLibrarian.main(new String[]{});
			}
		});
		btnViewLibrarian.setFont(new Font("Tahoma", Font.PLAIN, 15));

		JButton btnDeleteLibrarian = new JButton("Delete Librarian");
		btnDeleteLibrarian.addActionListener(new ActionListener() {
			public void actionPerformed(ActionEvent e) {
			DeleteLibrarian.main(new String[]{});
			frame.dispose();
			}
		});
		btnDeleteLibrarian.setFont(new Font("Tahoma", Font.PLAIN, 15));

		JButton btnLogout = new JButton("Logout");
		btnLogout.addActionListener(new ActionListener() {
			public void actionPerformed(ActionEvent arg0) {
				Library.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(btnDeleteLibrarian,
GroupLayout.PREFERRED_SIZE, 181, GroupLayout.PREFERRED_SIZE)
                                        .addComponent(btnViewLibrarian,
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(btnViewLibrarian,
GroupLayout.PREFERRED_SIZE, 49, GroupLayout.PREFERRED_SIZE)
                                    .addGap(18)
                                    .addComponent(btnDeleteLibrarian,
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);
        }
}
```

LibrarianLogin.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;
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 LibrarianLogin extends JFrame {
	static LibrarianLogin frame;
	private JPanel contentPane;
	private JTextField textField;
	private JPasswordField passwordField;

	/**
	 * Launch the application.
	 */
	public static void main(String[] args) {
		EventQueue.invokeLater(new Runnable() {
			public void run() {
				try {
					frame = new LibrarianLogin();
					frame.setVisible(true);
				} catch (Exception e) {
					e.printStackTrace();
				}
			}
		});
	}

	/**
	 * Create the frame.
	 */
	public LibrarianLogin() {
		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("Librarian Login Form");
		lblAdminLoginForm.setForeground(Color.GRAY);
		lblAdminLoginForm.setFont(new Font("Tahoma", Font.PLAIN, 18));

		JLabel lblEnterName = new JLabel("Enter Name:");

		JLabel lblEnterPassword = new JLabel("Enter Password:");

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

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

```
                String password=String.valueOf(passwordField.getPassword());
                if(name.equals("raana")&&password.equals("raana123")){
                        LibrarianSuccess.main(new String[]{});
                        frame.dispose();
                }else{
                        JOptionPane.showMessageDialog(LibrarianLogin.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);
        }
}
```

LibrarySuccess.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;
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 LibrarianSuccess extends JFrame {
        static LibrarianSuccess frame;
        private JPanel contentPane;

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

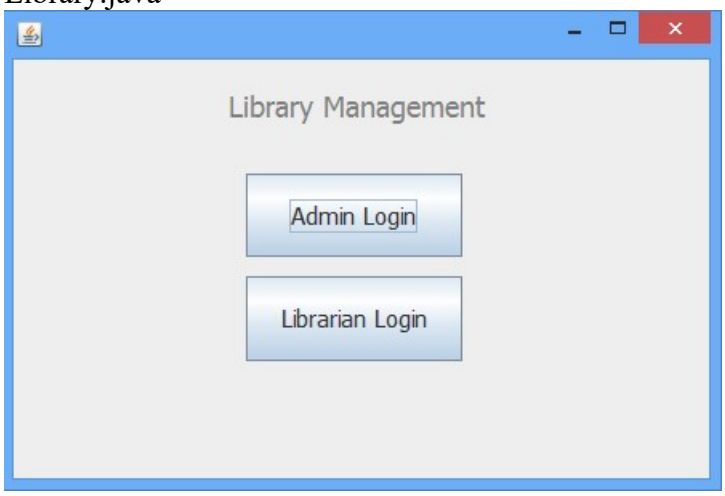
```
                                frame.setVisible(true);
                        } catch (Exception e) {
                                e.printStackTrace();
                        }
                }
        });
}

/**
 * Create the frame.
 */
public LibrarianSuccess() {
        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 lblLibrarianSection = new JLabel("Librarian Section - JavaTpoint");
        lblLibrarianSection.setFont(new Font("Tahoma", Font.PLAIN, 22));

        JButton btnNewButton = new JButton("Add Books");
        btnNewButton.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e) {
                BooksForm.main(new String[]{});
                frame.dispose();
                }
        });
        btnNewButton.setFont(new Font("Tahoma", Font.PLAIN, 13));

        JButton btnViewBooks = new JButton("View Books");
        btnViewBooks.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent arg0) {
                        ViewBooks.main(new String[]{});
                }
        });
        btnViewBooks.setFont(new Font("Tahoma", Font.PLAIN, 13));

        JButton btnIssueBook = new JButton("Issue Book");
        btnIssueBook.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e) {
                        IssueBookForm.main(new String[]{});
                        frame.dispose();
                }
        });
        btnIssueBook.setFont(new Font("Tahoma", Font.PLAIN, 13));

        JButton btnViewIssuedBooks = new JButton("View Issued Books");
        btnViewIssuedBooks.addActionListener(new ActionListener() {
```

```
                public void actionPerformed(ActionEvent e) {
                        ViewIssuedBooks.main(new String[]{});
                }
        });
        btnViewIssuedBooks.setFont(new Font("Tahoma", Font.PLAIN, 13));

        JButton btnReturnBook = new JButton("Return Book");
        btnReturnBook.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e) {
                        ReturnBook.main(new String[]{});
                        frame.dispose();
                }
        });
        btnReturnBook.setFont(new Font("Tahoma", Font.PLAIN, 13));

        JButton btnLogout = new JButton("Logout");
        btnLogout.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e) {
                        Library.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(lblLibrarianSection)
                                        .addGap(54))
                                .addGroup(gl_contentPane.createSequentialGroup()
                                        .addGap(132)

        .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)
                                                .addComponent(btnLogout,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                                .addComponent(btnReturnBook,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                                .addComponent(btnViewIssuedBooks,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                                .addComponent(btnIssueBook,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                                .addComponent(btnViewBooks,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                                .addComponent(btnNewButton,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE))
                                        .addContainerGap(101, Short.MAX_VALUE))
        );
        gl_contentPane.setVerticalGroup(
```

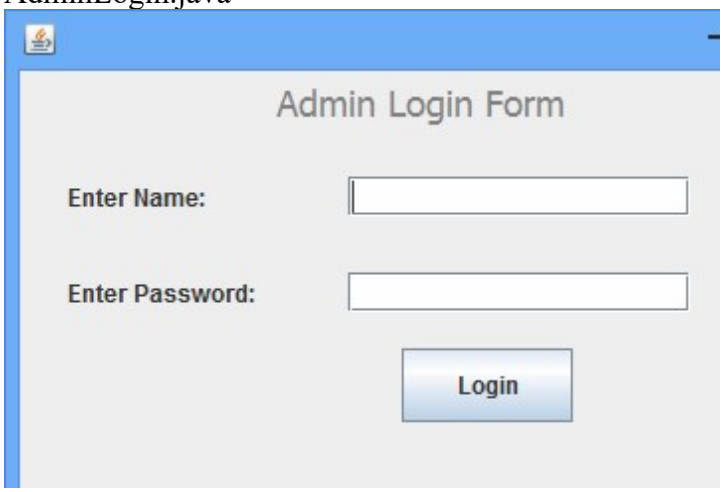
```
                        gl_contentPane.createParallelGroup(Alignment.LEADING)
                                .addGroup(gl_contentPane.createSequentialGroup()
                                        .addContainerGap()
                                        .addComponent(lblLibrarianSection)
                                        .addGap(18)
                                        .addComponent(btnNewButton,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                        .addGap(18)
                                        .addComponent(btnViewBooks,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                        .addGap(18)
                                        .addComponent(btnIssueBook,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                        .addGap(18)
                                        .addComponent(btnViewIssuedBooks,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                        .addGap(18)
                                        .addComponent(btnReturnBook,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                        .addGap(18)
                                        .addComponent(btnLogout,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                        .addContainerGap(16, Short.MAX_VALUE))
                        );
                        contentPane.setLayout(gl_contentPane);
                }

}
```

Outputs

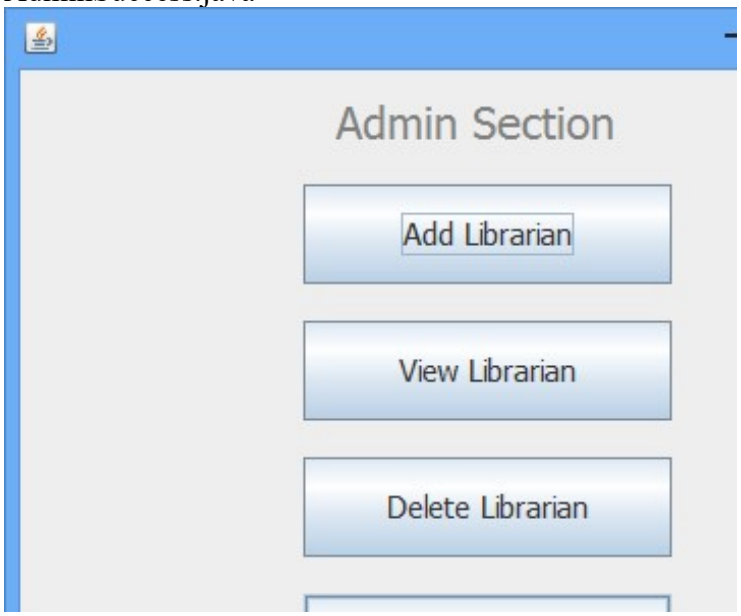
Library.java



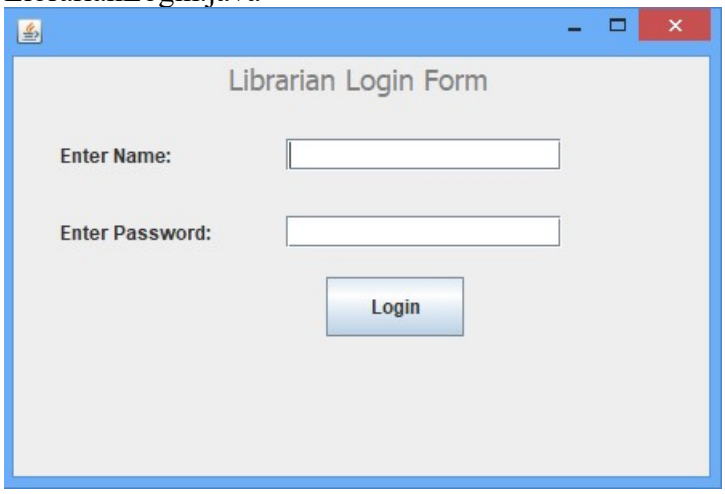
AdminLogin.java



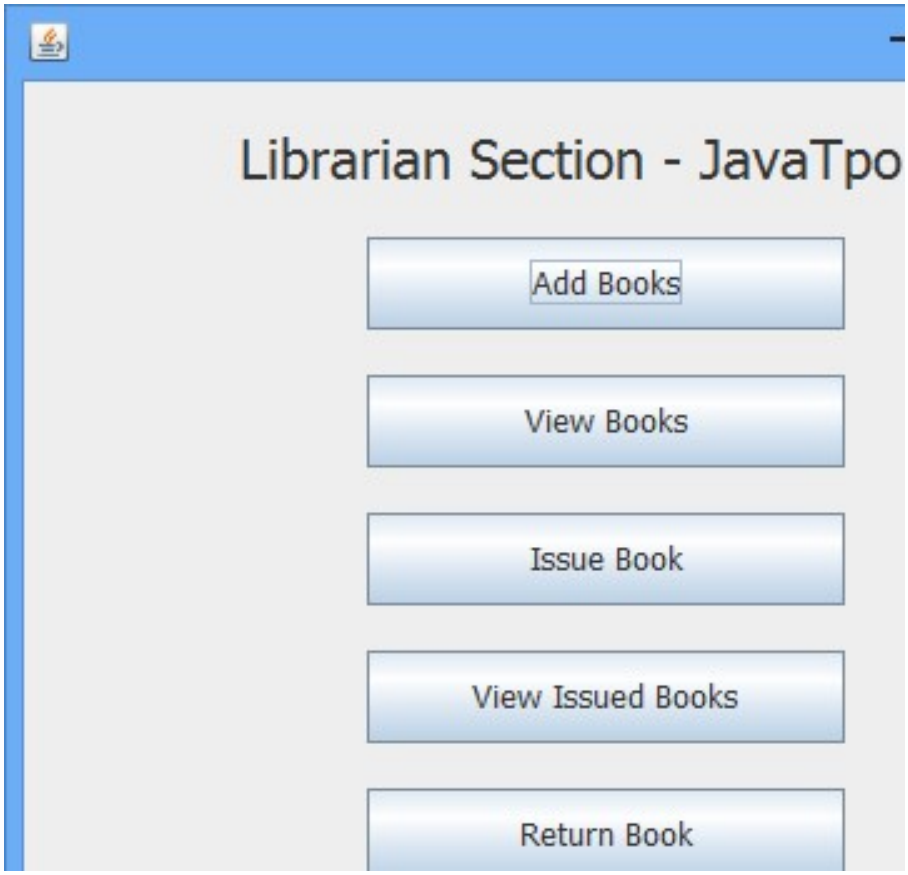
AdminSuccess.java



LibrarianLogin.java



LibrarianSuccess.java


Librarian Section - JavaTpo
Add Books
View Books
Issue Book
View Issued Books
Return Book

Practical 4

Aim: Develop Java application to store image in a database as well as retrieve image from database.

Table

```
Create table myimages
(
        ID number(2),
        Name varchar2(20),
        Description varchar2(50),
        Image longblob
);
```

Work1.java:- Store

```
import java.awt.Image;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import javax.swing.*;
import javax.swing.filechooser.FileNameExtensionFilter;
import java.io.File;
import java.io.FileInputStream;
import java.io.InputStream;


public class Work1 extends JFrame{
   JButton button ;
   JButton button2;
   JLabel label;
   JTextField textID;
   JTextField textNAME;
   JTextArea area;
   String s;

   public Work1(){

   super("insert image to database in java");

   button = new JButton("ADD");
   button.setBounds(200,300,100,40);

   button2 = new JButton("Browse");
   button2.setBounds(80, 300, 100, 40);

   textID = new JTextField("ID");
   textID.setBounds(320,290,100,20);
```

```
    textNAME = new JTextField("Name");
    textNAME.setBounds(320,330,100,20);

    area = new JTextArea("DESCRIPTION",100, 100);

    JScrollPane pane = new JScrollPane(area);
    pane.setBounds(450, 270, 200, 100);

    label = new JLabel();
    label.setBounds(10,10,670,250);

    //button to browse the image into jlabel
    button2.addActionListener(new ActionListener(){
       @Override
     public void actionPerformed(ActionEvent e){
        JFileChooser fileChooser = new JFileChooser();
        fileChooser.setCurrentDirectory(new File(System.getProperty("user.home")));
        FileNameExtensionFilter filter = new FileNameExtensionFilter("*.IMAGE",
"jpg","gif","png");
        fileChooser.addChoosableFileFilter(filter);
        int result = fileChooser.showSaveDialog(null);
        if(result == JFileChooser.APPROVE_OPTION){
           File selectedFile = fileChooser.getSelectedFile();
           String path = selectedFile.getAbsolutePath();
           label.setIcon(ResizeImage(path));
           s = path;
            }
        else if(result == JFileChooser.CANCEL_OPTION){
           System.out.println("No Data");
        }
     }
    });

    //button to insert image and some data into mysql database
    button.addActionListener(new ActionListener(){

       @Override
       public void actionPerformed(ActionEvent e){
          try{
             Connection con =
DriverManager.getConnection("jdbc:mysql://localhost/db_images","root","");
             PreparedStatement ps = con.prepareStatement("insert into
myimages(ID,Name,Description,Image) values(?,?,?,?)");
             InputStream is = new FileInputStream(new File(s));
             ps.setString(1, textID.getText());
             ps.setString(2, textNAME.getText());
             ps.setString(3, area.getText());
             ps.setBlob(4,is);
             ps.executeUpdate();
```

```
            JOptionPane.showMessageDialog(null, "Data Inserted");
          }catch(Exception ex){
            ex.printStackTrace();
          }
        }
    });

    add(label);
    add(textID);
    add(textNAME);
    add(pane);
    add(button);
    add(button2);
    setLayout(null);
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setSize(700,420);
    setVisible(true);
    }

    public ImageIcon ResizeImage(String imgPath){
        ImageIcon MyImage = new ImageIcon(imgPath);
        Image img = MyImage.getImage();
        Image newImage = img.getScaledInstance(label.getWidth(),
label.getHeight(),Image.SCALE_SMOOTH);
        ImageIcon image = new ImageIcon(newImage);
        return image;
    }

    public static void main(String[] args){
        new Work1();
    }
   }
```

Work.java Retrieve image

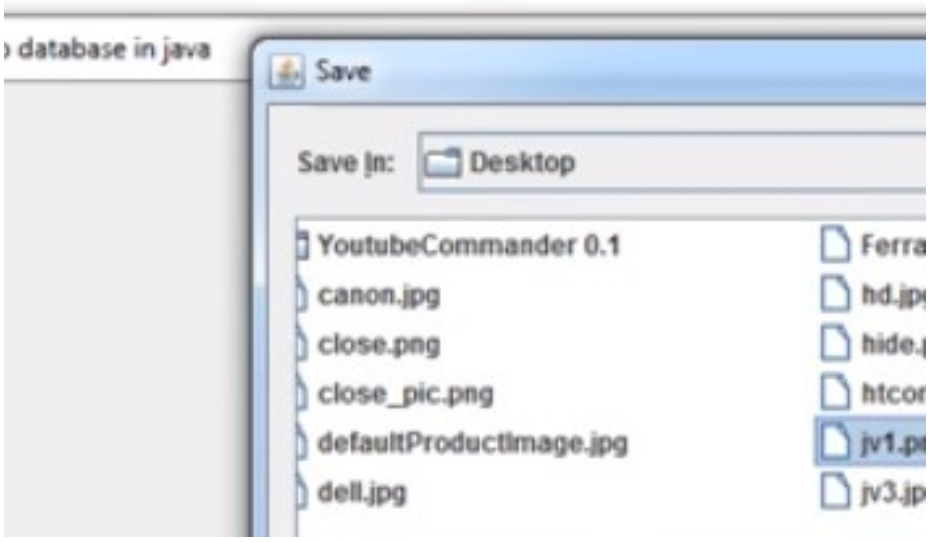
```
import java.awt.Color;
import java.awt.Image;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
import javax.swing.*;

public class Work extends JFrame{
    JButton button ;
    JLabel label;
    JTextField jtf;

    public Work(){
    super("retrieve image from database in java");
```

```
    button = new JButton("Retrieve");
    button.setBounds(250,300,100,40);

    jtf = new JTextField();
    jtf.setBounds(360,310,100,20);

    label = new JLabel();
    label.setBounds(10,10,670,250);

    add(button);
    add(label);
    add(jtf);

    button.addActionListener(new ActionListener() {

        @Override
        public void actionPerformed(ActionEvent e) {

            try{
                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost/db_images","root","");
                Statement st = con.createStatement();
                ResultSet rs = st.executeQuery("select * from myimages where ID =
'"+jtf.getText()+"'");
                if(rs.next()){
                    byte[] img = rs.getBytes("Image");



                    //Resize The ImageIcon
                    ImageIcon image = new ImageIcon(img);
                    Image im = image.getImage();
                    Image myImg = im.getScaledInstance(label.getWidth(),
label.getHeight(),Image.SCALE_SMOOTH);
                    ImageIcon newImage = new ImageIcon(myImg);
                    label.setIcon(newImage);
                }

                else{
                    JOptionPane.showMessageDialog(null, "No Data");
                }
            }catch(Exception ex){
                ex.printStackTrace();
            }

        }
    });

    setLayout(null);
```

```
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    getContentPane().setBackground(Color.decode("#bdb76b"));
    setLocationRelativeTo(null);
    setSize(700,400);
    setVisible(true);
    }

    public static void main(String[] args){
        new Work();
    }
   }
```

Output

Insertion

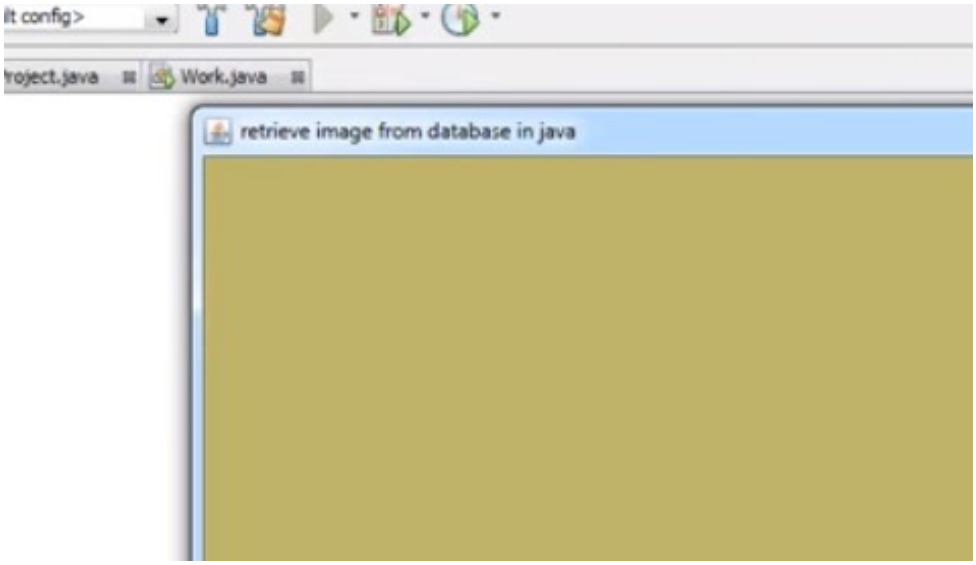


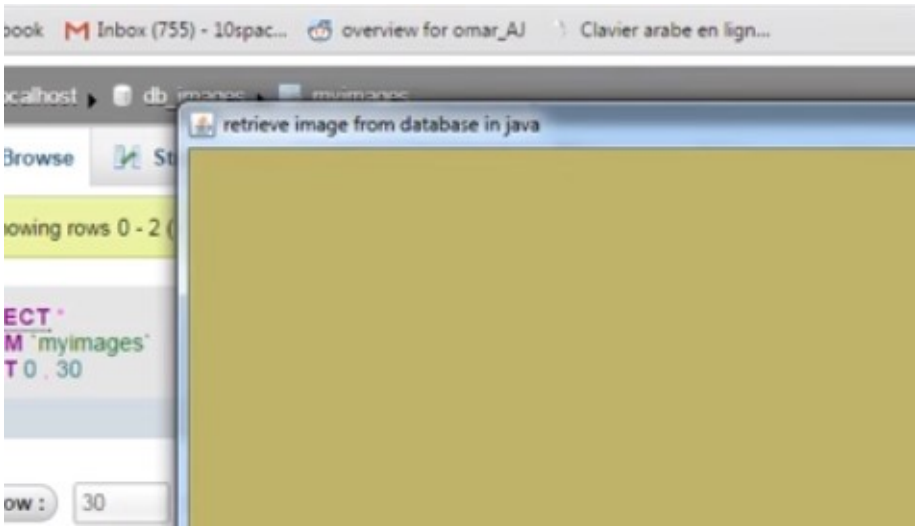

insert image to database in java
Java


un)
Project.java
Work.java


insert image to database in java
Java

Retrieving


Work.java
retrieve image from database in java


Inbox (755) - 10spac...
overview for omar_AJ
Clavier arabe en lign...
retrieve image from database in java
Browse
myimages
30


Inbox (755) - 10spac...
overview for omar_AJ
Clavier arabe en lign...
retrieve image from database in java
Browse
myimages
30
Java

Practical 5

Aim: Write a Java application to demonstrate servlet life cycle.

ServletLifeCycle.java

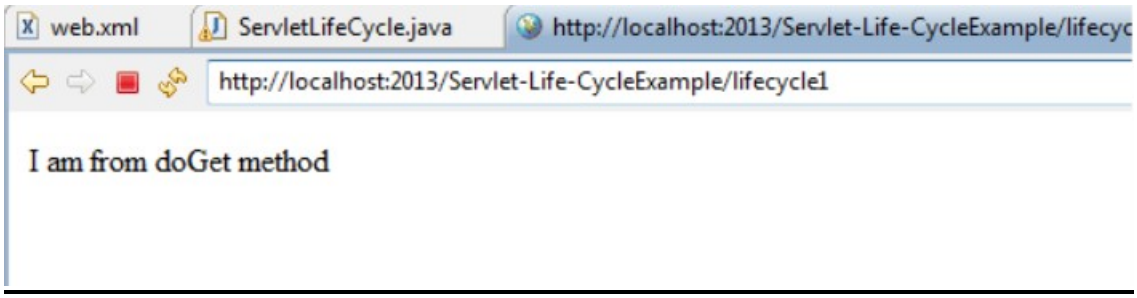
```
import java.io.IOException;
import java.io.PrintWriter;

import javax.servlet.ServletConfig;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

public class ServletLifeCycle extends HttpServlet
{

 public ServletLifeCycle()
 {
 System.out.println("Am from default constructor");
 }

 public void init(ServletConfig config)
 {
 System.out.println("Am from Init method...!");
 }

 public void doGet(HttpServletRequest req,HttpServletResponse res)throws
ServletException,IOException
 {
 res.setContentType("text/html");
 PrintWriter pw = res.getWriter();
 pw.println("I am from doGet method");
 pw.close();
 }

 public void destroy()
 {
 System.out.println("Am from Destroy methods");
 }

}
```

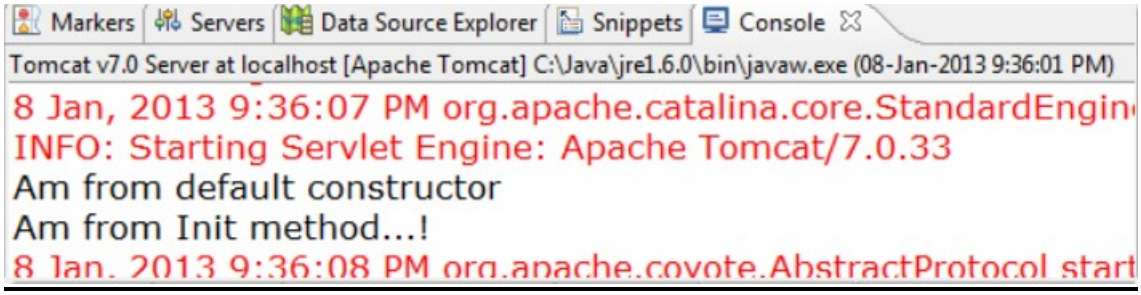
web.xml

```
<web-app>
    <servlet>
        <servlet-name>second</servlet-name>
        <servlet-class>java4s.ServletLifeCycle</servlet-class>
      <load-on-startup>1</load-on-startup>
    </servlet>

    <servlet-mapping>
        <servlet-name>second</servlet-name>
```

```
        <url-pattern>/lifecycle1</url-pattern>
    </servlet-mapping>
</web-app>
```

Output





Practical 6

Aim: Design database for employee administration. Develop servlet(s) to perform CRUD operations.

Index.html

```
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>

<h1>Add New Employee</h1>
<form action="SaveServlet" method="post">
<table>
<tr><td>Name:</td><td><input type="text" name="name"/></td></tr>
<tr><td>Password:</td><td><input type="password" name="password"/></td></tr>
<tr><td>Email:</td><td><input type="email" name="email"/></td></tr>
<tr><td>Country:</td><td>
<select name="country" style="width:150px">
<option>India</option>
<option>USA</option>
<option>UK</option>
<option>Other</option>
</select>
</td></tr>
<tr><td colspan="2"><input type="submit" value="Save Employee"/></td></tr>
</table>
</form>

<br/>
<a href="ViewServlet">view employees</a>

</body>
</html>
```

Emp.java

```
public class Emp {
private int id;
private String name,password,email,country;
public int getId() {
    return id;
}
public void setId(int id) {
    this.id = id;
}
public String getName() {
    return name;
}
public void setName(String name) {
```

```
    this.name = name;
}
public String getPassword() {
    return password;
}
public void setPassword(String password) {
    this.password = password;
}
public String getEmail() {
    return email;
}
public void setEmail(String email) {
    this.email = email;
}
public String getCountry() {
    return country;
}
public void setCountry(String country) {
    this.country = country;
}

}
```

EmpDao.java

```
import java.util.*;
import java.sql.*;

public class EmpDao {

    public static Connection getConnection(){
        Connection con=null;
        try{
            Class.forName("oracle.jdbc.driver.OracleDriver");
            con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","oracle");
        }catch(Exception e){System.out.println(e);}
        return con;
    }
    public static int save(Emp e){
        int status=0;
        try{
            Connection con=EmpDao.getConnection();
            PreparedStatement ps=con.prepareStatement(
                    "insert into Employee(name,password,email,country) values (?,?,?,?)");
            ps.setString(1,e.getName());
            ps.setString(2,e.getPassword());
            ps.setString(3,e.getEmail());
            ps.setString(4,e.getCountry());

            status=ps.executeUpdate();

            con.close();
        }catch(Exception ex){ex.printStackTrace();}

        return status;
    }
    public static int update(Emp e){
```

```
    int status=0;
    try{
        Connection con=EmpDao.getConnection();
        PreparedStatement ps=con.prepareStatement(
                "update Employee set name=?,password=?,email=?,country=? where id=?");
        ps.setString(1,e.getName());
        ps.setString(2,e.getPassword());
        ps.setString(3,e.getEmail());
        ps.setString(4,e.getCountry());
        ps.setInt(5,e.getId());

        status=ps.executeUpdate();

        con.close();
    }catch(Exception ex){ex.printStackTrace();}

    return status;
}
public static int delete(int id){
    int status=0;
    try{
        Connection con=EmpDao.getConnection();
        PreparedStatement ps=con.prepareStatement("delete from Employee where id=?");
        ps.setInt(1,id);
        status=ps.executeUpdate();

        con.close();
    }catch(Exception e){e.printStackTrace();}

    return status;
}
public static Emp getEmployeeById(int id){
    Emp e=new Emp();

    try{
        Connection con=EmpDao.getConnection();
        PreparedStatement ps=con.prepareStatement("select * from Employee where id=?");
        ps.setInt(1,id);
        ResultSet rs=ps.executeQuery();
        if(rs.next()){
            e.setId(rs.getInt(1));
            e.setName(rs.getString(2));
            e.setPassword(rs.getString(3));
            e.setEmail(rs.getString(4));
            e.setCountry(rs.getString(5));
        }
        con.close();
    }catch(Exception ex){ex.printStackTrace();}

    return e;
}
public static List<Emp> getAllEmployees(){
    List<Emp> list=new ArrayList<Emp>();

    try{
        Connection con=EmpDao.getConnection();
        PreparedStatement ps=con.prepareStatement("select * from Employee");
        ResultSet rs=ps.executeQuery();
        while(rs.next()){
            Emp e=new Emp();
```

```
            e.setId(rs.getInt(1));
            e.setName(rs.getString(2));
            e.setPassword(rs.getString(3));
            e.setEmail(rs.getString(4));
            e.setCountry(rs.getString(5));
            list.add(e);
          }
          con.close();
        }catch(Exception e){e.printStackTrace();}

        return list;
    }
}
```

SaveServelet.java

```
import java.io.IOException;
import java.io.PrintWriter;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
@WebServlet("/SaveServlet")
public class SaveServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out=response.getWriter();

        String name=request.getParameter("name");
        String password=request.getParameter("password");
        String email=request.getParameter("email");
        String country=request.getParameter("country");

        Emp e=new Emp();
        e.setName(name);
        e.setPassword(password);
        e.setEmail(email);
        e.setCountry(country);

        int status=EmpDao.save(e);
        if(status>0){
            out.print("<p>Record saved successfully!</p>");
            request.getRequestDispatcher("index.html").include(request, response);
        }else{
            out.println("Sorry! unable to save record");
        }
        out.close();
    }
}
```

EditServlet.java

```
import java.io.IOException;
import java.io.PrintWriter;
```

```
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
@WebServlet("/EditServlet")
public class EditServlet extends HttpServlet {
   protected void doGet(HttpServletRequest request, HttpServletResponse response)
         throws ServletException, IOException {
      response.setContentType("text/html");
      PrintWriter out=response.getWriter();
      out.println("<h1>Update Employee</h1>");
      String sid=request.getParameter("id");
      int id=Integer.parseInt(sid);

      Emp e=EmpDao.getEmployeeById(id);

      out.print("<form action='EditServlet2' method='post'>");
      out.print("<table>");
      out.print("<tr><td></td><td><input type='hidden' name='id' value='"+e.getId()+"'/></td></tr>");

      out.print("<tr><td>Name:</td><td><input type='text' name='name' value='"+e.getName()+"'/></
td></tr>");
      out.print("<tr><td>Password:</td><td><input type='password' name='password' value='"+e.getP
assword()+"'/>
            </td></tr>");
      out.print("<tr><td>Email:</td><td><input type='email' name='email' value='"+e.getEmail()+"'/>
</td></tr>");
      out.print("<tr><td>Country:</td><td>");
      out.print("<select name='country' style='width:150px'>");
      out.print("<option>India</option>");
      out.print("<option>USA</option>");
      out.print("<option>UK</option>");
      out.print("<option>Other</option>");
      out.print("</select>");
      out.print("</td></tr>");
      out.print("<tr><td colspan='2'><input type='submit' value='Edit & Save '/></td></tr>");
      out.print("</table>");
      out.print("</form>");

      out.close();
   }
}
```

EditServlet2.java

```
import java.io.IOException;
import java.io.PrintWriter;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
```

```
@WebServlet("/EditServlet2")
public class EditServlet2 extends HttpServlet {
   protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
      response.setContentType("text/html");
      PrintWriter out=response.getWriter();

      String sid=request.getParameter("id");
      int id=Integer.parseInt(sid);
      String name=request.getParameter("name");
      String password=request.getParameter("password");
      String email=request.getParameter("email");
      String country=request.getParameter("country");

      Emp e=new Emp();
      e.setId(id);
      e.setName(name);
      e.setPassword(password);
      e.setEmail(email);
      e.setCountry(country);

      int status=EmpDao.update(e);
      if(status>0){
         response.sendRedirect("ViewServlet");
      }else{
         out.println("Sorry! unable to update record");
      }

      out.close();
   }

}
```

DeleteServlet.java

```
import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
@WebServlet("/DeleteServlet")
public class DeleteServlet extends HttpServlet {
   protected void doGet(HttpServletRequest request, HttpServletResponse response)
         throws ServletException, IOException {
      String sid=request.getParameter("id");
      int id=Integer.parseInt(sid);
      EmpDao.delete(id);
      response.sendRedirect("ViewServlet");
   }
}
```

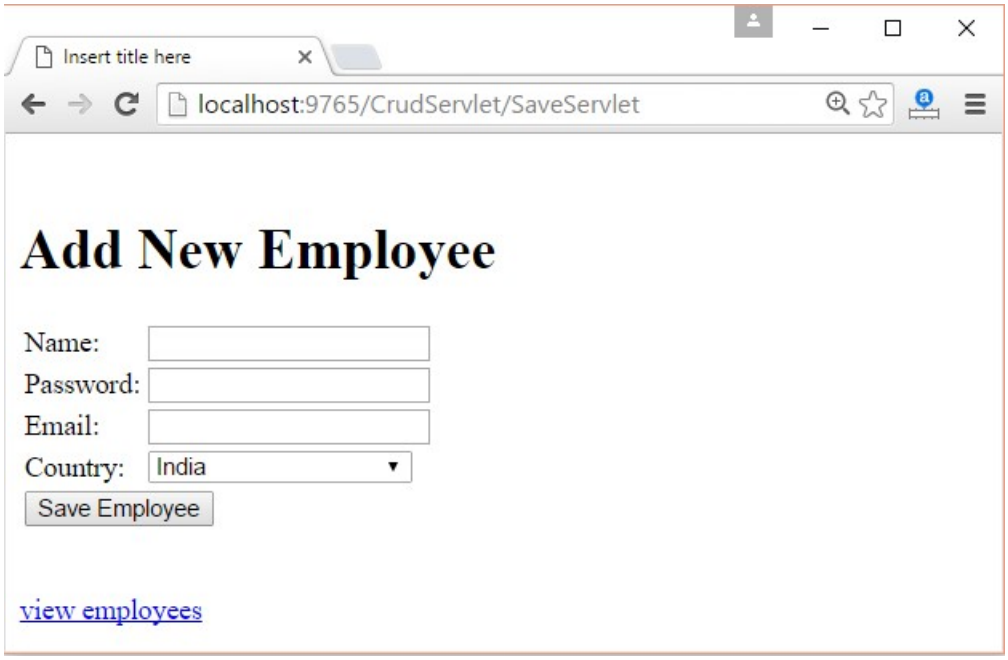
ViewServlet.java

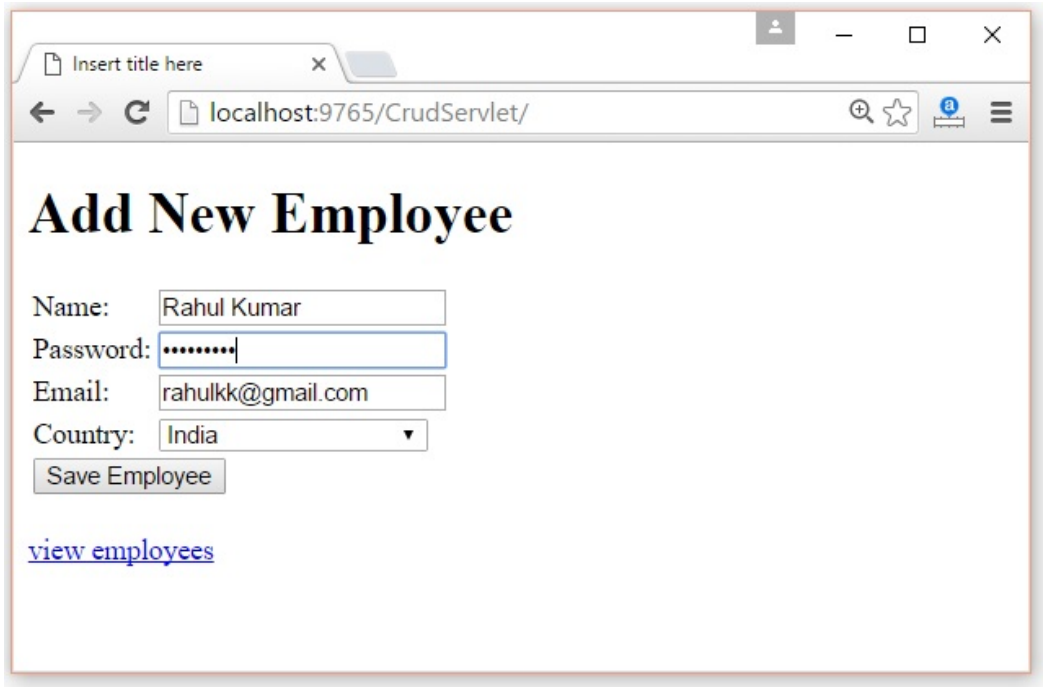
```
import java.io.IOException;
import java.io.PrintWriter;
```

```
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
@WebServlet("/ViewServlet")
public class ViewServlet extends HttpServlet {
   protected void doGet(HttpServletRequest request, HttpServletResponse response)
           throws ServletException, IOException {
      response.setContentType("text/html");
      PrintWriter out=response.getWriter();
      out.println("<a href='index.html'>Add New Employee</a>");
      out.println("<h1>Employees List</h1>");

      List<Emp> list=EmpDao.getAllEmployees();

      out.print("<table border='1' width='100%'");
      out.print("<tr><th>Id</th><th>Name</th><th>Password</th><th>Email</th><th>Country</th
>
            <th>Edit</th><th>Delete</th></tr>");
      for(Emp e:list){
       out.print("<tr><td>"+e.getId()+"</td><td>"+e.getName()+"</td><td>"+e.getPassword()+"</td
>
            <td>"+e.getEmail()+"</td><td>"+e.getCountry()+"</td><td><a href='EditServlet?id="+e.
getId()+"'>edit</a></td>
            <td><a href='DeleteServlet?id="+e.getId()+"'>delete</a></td></tr>");
      }
      out.print("</table>");

      out.close();
   }
}
```

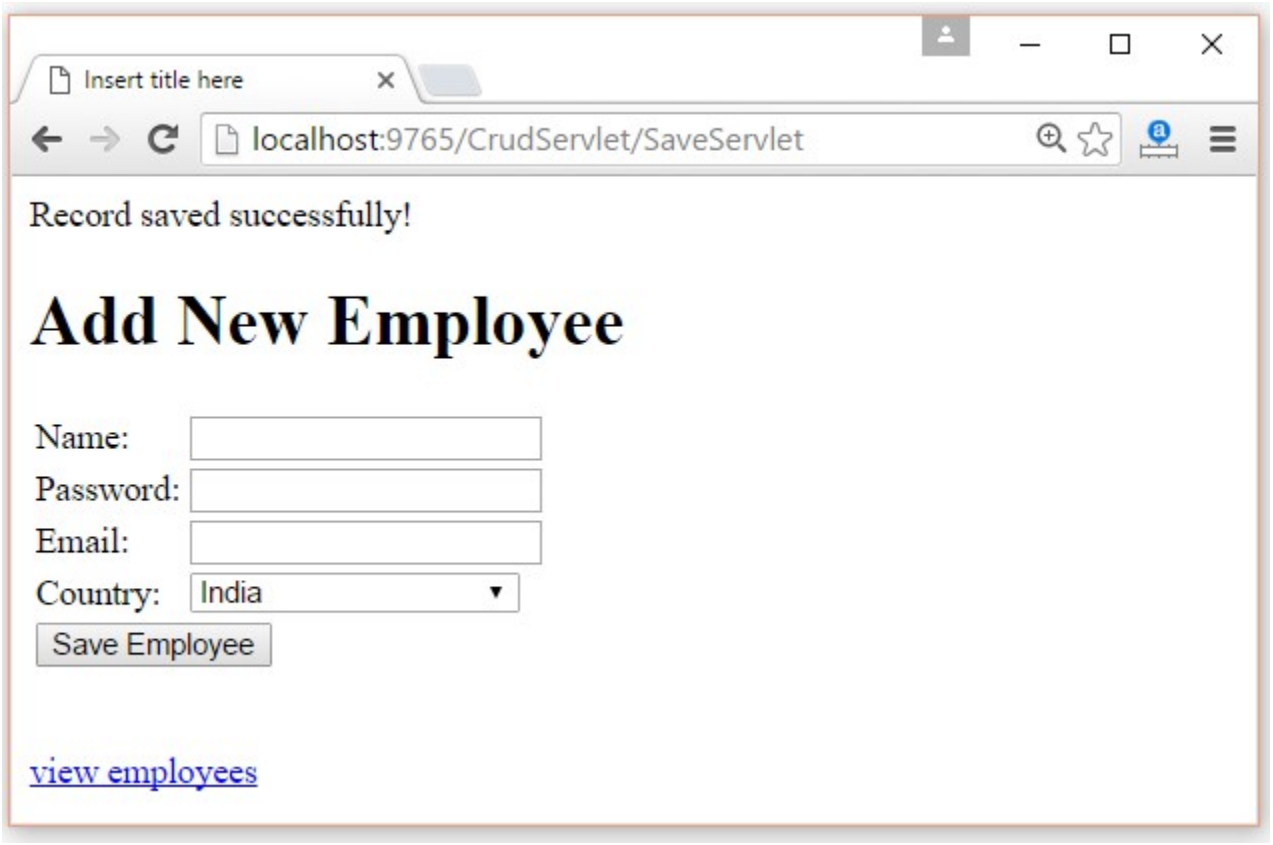
Output

First page will look like this, fill the form and submit it.

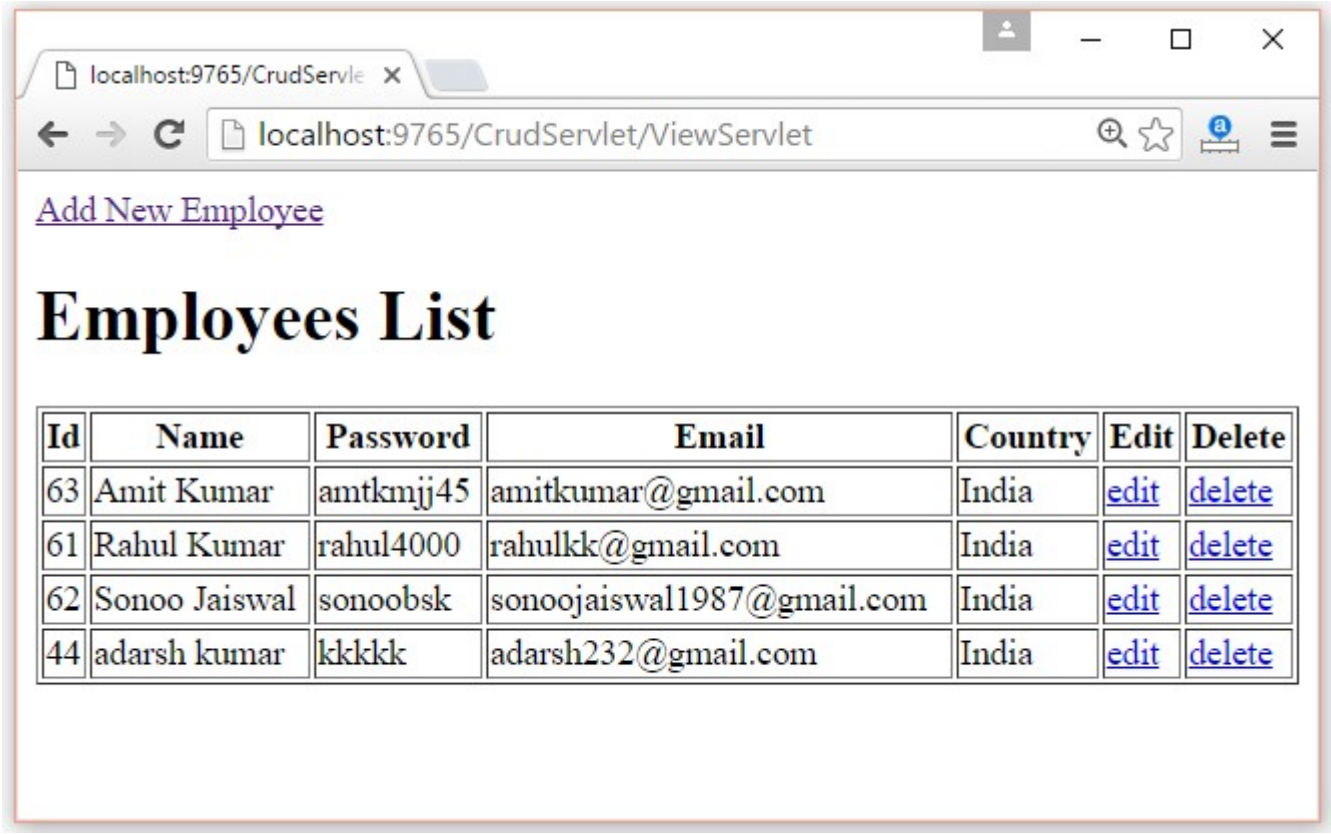




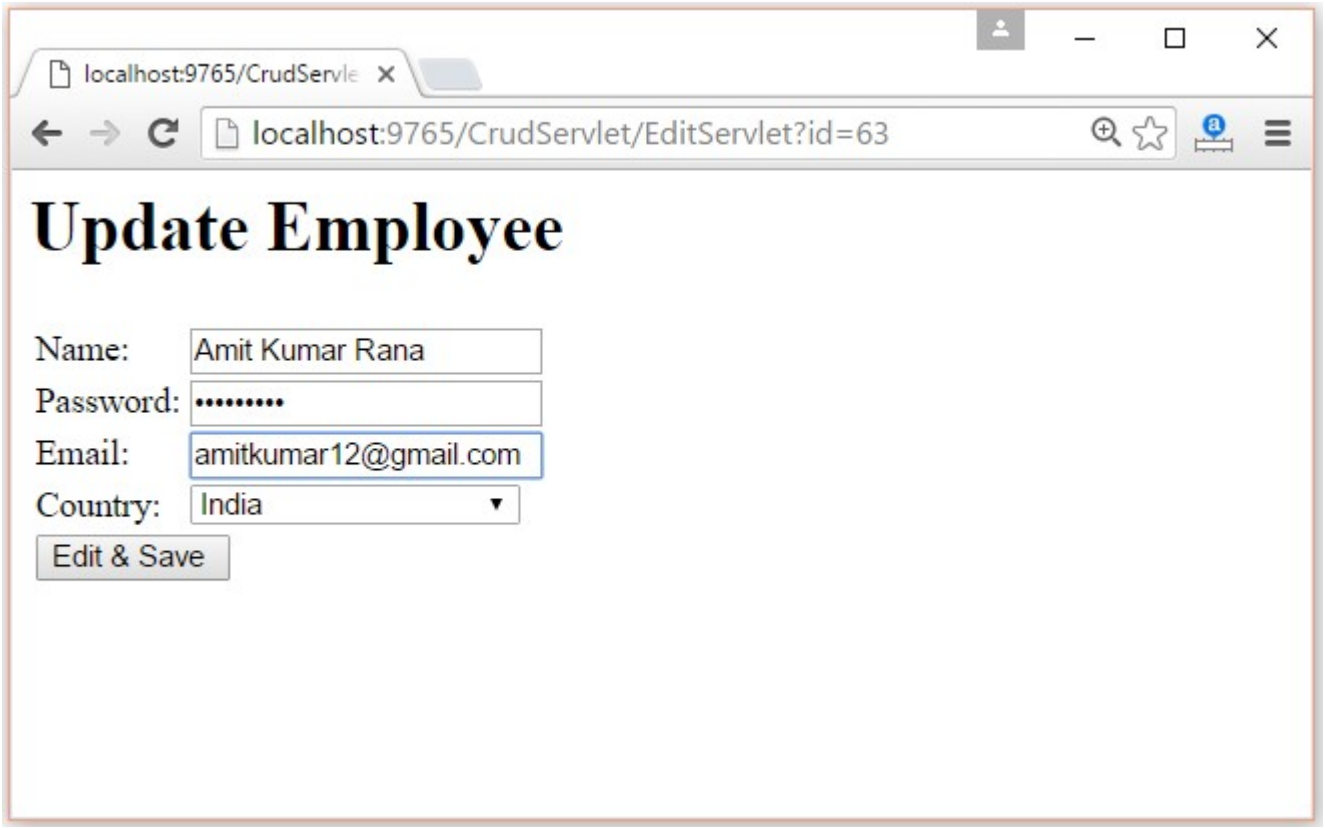
You will get a message "Record successfully saved!".



Click on the View Employees link to see the total employees list.

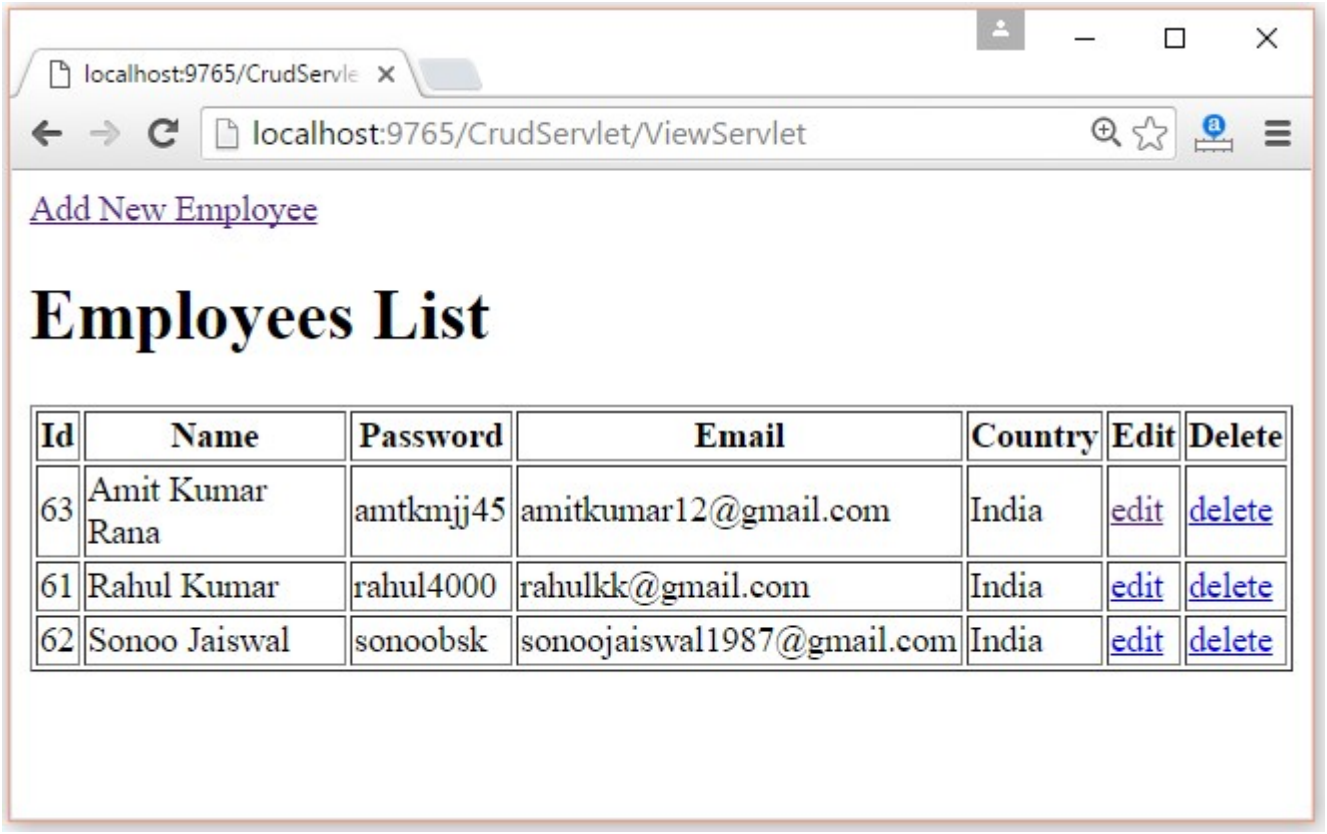


Click on the update link, to change the data.



After changing information, submit button. You will see that information is changed.

Now, click on the delete link to delete the record.


localhost:9765/CrudServle
localhost:9765/CrudServlet/ViewServlet
Add New Employee
Employees List
Id Name Password Email Country Edit Delete
63 Amit Kumar Rana amtkmjj45 amitkumar12@gmail.com India edit delete
61 Rahul Kumar rahul4000 rahulkk@gmail.com India edit delete
62 Sonoo Jaiswal sonoobsk sonoojaiswal1987@gmail.com India edit delete

Practical 7

Aim: Create Employees table in EMP database. Perform select, insert, update, and delete operations on Employee table using JSP.

index.jsp

```
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>JSP CRUD Example</title>
</head>
<body>
<h1>JSP CRUD Example</h1>
<a href="adduserform.jsp">Add User</a>
<a href="viewusers.jsp">View Users</a>

</body>
</html>
```

adduserform.jsp

```
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Add User Form</title>
</head>
<body>

<jsp:include page="userform.html"></jsp:include>

</body>
</html>
```

userform.html

```
<a href="viewusers.jsp">View All Records</a><br/>

<h1>Add New User</h1>
<form action="adduser.jsp" method="post">
<table>
<tr><td>Name:</td><td><input type="text" name="name"/></td></tr>
<tr><td>Password:</td><td>
<input type="password" name="password"/></td></tr>
<tr><td>Email:</td><td><input type="email" name="email"/></td></tr>
<tr><td>Sex:</td><td>
<input type="radio" name="sex" value="male"/>Male
<input type="radio" name="sex" value="female"/>Female </td></tr>
<tr><td>Country:</td><td>
<select name="country" style="width:155px">
<option>India</option>
<option>Pakistan</option>
<option>Afghanistan</option>
```

```
<option>Berma</option>
<option>Other</option>
</select>
</td></tr>
<tr><td colspan="2"><input type="submit" value="Add User"/></td></tr>
</table>
</form>
```

adduser.jsp

```
<%@page import="com.javatpoint.dao.UserDao"%>
<jsp:useBean id="u" class="com.javatpoint.bean.User"></jsp:useBean>
<jsp:setProperty property="*" name="u"/>

<%
int i=UserDao.save(u);
if(i>0){
response.sendRedirect("adduser-success.jsp");
}else{
response.sendRedirect("adduser-error.jsp");
}
%>
```

User.java

```
package com.javatpoint.bean;
public class User {
private int id;
private String name,password,email,sex,country;
//generate getters and setters
}
```

UserDao.java

```
package com.javatpoint.dao;
import java.sql.*;
import java.util.ArrayList;
import java.util.List;
import com.javatpoint.bean.User;
public class UserDao {

public static Connection getConnection(){
   Connection con=null;
   try{
      Class.forName("com.mysql.jdbc.Driver");
      con=DriverManager.getConnection("jdbc:mysql://localhost:3306/test","","");
   }catch(Exception e){System.out.println(e);}
   return con;
}
public static int save(User u){
   int status=0;
   try{
      Connection con=getConnection();
```

```
        PreparedStatement ps=con.prepareStatement(
"insert into register(name,password,email,sex,country) values(?,?,?,?,?)");
        ps.setString(1,u.getName());
        ps.setString(2,u.getPassword());
        ps.setString(3,u.getEmail());
        ps.setString(4,u.getSex());
        ps.setString(5,u.getCountry());
        status=ps.executeUpdate();
    }catch(Exception e){System.out.println(e);}
    return status;
}
public static int update(User u){
    int status=0;
    try{
        Connection con=getConnection();
        PreparedStatement ps=con.prepareStatement(
"update register set name=?,password=?,email=?,sex=?,country=? where id=?");
        ps.setString(1,u.getName());
        ps.setString(2,u.getPassword());
        ps.setString(3,u.getEmail());
        ps.setString(4,u.getSex());
        ps.setString(5,u.getCountry());
        ps.setInt(6,u.getId());
        status=ps.executeUpdate();
    }catch(Exception e){System.out.println(e);}
    return status;
}
public static int delete(User u){
    int status=0;
    try{
        Connection con=getConnection();
        PreparedStatement ps=con.prepareStatement("delete from register where id=?");
        ps.setInt(1,u.getId());
        status=ps.executeUpdate();
    }catch(Exception e){System.out.println(e);}

    return status;
}
public static List<User> getAllRecords(){
    List<User> list=new ArrayList<User>();

    try{
        Connection con=getConnection();
        PreparedStatement ps=con.prepareStatement("select * from register");
        ResultSet rs=ps.executeQuery();
        while(rs.next()){
            User u=new User();
            u.setId(rs.getInt("id"));
            u.setName(rs.getString("name"));
            u.setPassword(rs.getString("password"));
```

```
            u.setEmail(rs.getString("email"));
            u.setSex(rs.getString("sex"));
            u.setCountry(rs.getString("country"));
            list.add(u);
        }
    }catch(Exception e){System.out.println(e);}
    return list;
}
public static User getRecordById(int id){
    User u=null;
    try{
        Connection con=getConnection();
        PreparedStatement ps=con.prepareStatement("select * from register where id=?");
        ps.setInt(1,id);
        ResultSet rs=ps.executeQuery();
        while(rs.next()){
            u=new User();
            u.setId(rs.getInt("id"));
            u.setName(rs.getString("name"));
            u.setPassword(rs.getString("password"));
            u.setEmail(rs.getString("email"));
            u.setSex(rs.getString("sex"));
            u.setCountry(rs.getString("country"));
        }
    }catch(Exception e){System.out.println(e);}
    return u;
}
}
```

adduser-success.jsp

```
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Add User Success</title>
</head>
<body>

<p>Record successfully saved!</p>
<jsp:include page="userform.html"></jsp:include>

</body>
</html>
```

adduser-error.jsp

```
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Add User Error</title>
```

```
</head>
<body>

<p>Sorry, an error occurred!</p>
<jsp:include page="userform.html"></jsp:include>

</body>
</html>
```

viewusers.jsp

```
<!DOCTYPE html>

<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>View Users</title>
</head>
<body>

<%@page import="com.javatpoint.dao.UserDao,com.javatpoint.bean.*,java.util.*"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>

<h1>Users List</h1>

<%
List<User> list=UserDao.getAllRecords();
request.setAttribute("list",list);
%>

<table border="1" width="90%">
<tr><th>Id</th><th>Name</th><th>Password</th><th>Email</th>
<th>Sex</th><th>Country</th><th>Edit</th><th>Delete</th></tr>
<c:forEach items="${list}" var="u">
<tr><td>${u.getId()}</td><td>${u.getName()}</td><td>${u.getPassword()}</td>
<td>${u.getEmail()}</td><td>${u.getSex()}</td><td>${u.getCountry()}</td>
<td><a href="editform.jsp?id=${u.getId()}">Edit</a></td>
<td><a href="deleteuser.jsp?id=${u.getId()}">Delete</a></td></tr>
</c:forEach>
</table>
<br/><a href="adduserform.jsp">Add New User</a>

</body>
</html>
```

editform.jsp

```
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
```

```
<title>Edit Form</title>
</head>
<body>
<%@page import="com.javatpoint.dao.UserDao,com.javatpoint.bean.User"%>

<%
String id=request.getParameter("id");
User u=UserDao.getRecordById(Integer.parseInt(id));
%>

<h1>Edit Form</h1>
<form action="edituser.jsp" method="post">
<input type="hidden" name="id" value="<%=u.getId() %>"/>
<table>
<tr><td>Name:</td><td>
<input type="text" name="name" value="<%= u.getName()%>"/></td></tr>
<tr><td>Password:</td><td>
<input type="password" name="password" value="<%= u.getPassword()%>"/></td></tr>
<tr><td>Email:</td><td>
<input type="email" name="email" value="<%= u.getEmail()%>"/></td></tr>
<tr><td>Sex:</td><td>
<input type="radio" name="sex" value="male"/>Male
<input type="radio" name="sex" value="female"/>Female </td></tr>
<tr><td>Country:</td><td>
<select name="country">
<option>India</option>
<option>Pakistan</option>
<option>Afghanistan</option>
<option>Berma</option>
<option>Other</option>
</select>
</td></tr>
<tr><td colspan="2"><input type="submit" value="Edit User"/></td></tr>
</table>
</form>

</body>
</html>
```

edituser.jsp

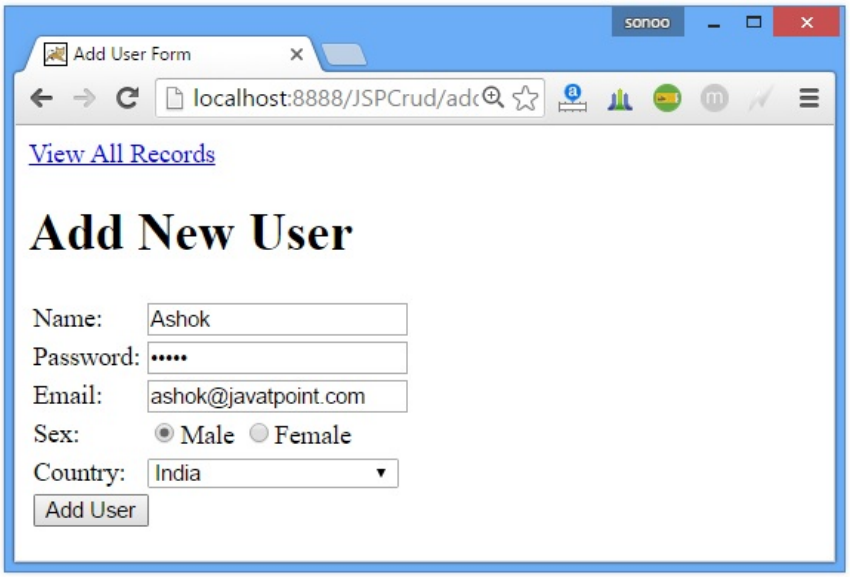
```
<%@page import="com.javatpoint.dao.UserDao"%>
<jsp:useBean id="u" class="com.javatpoint.bean.User"></jsp:useBean>
<jsp:setProperty property="*" name="u"/>
<%
int i=UserDao.update(u);
response.sendRedirect("viewusers.jsp");
%>
```

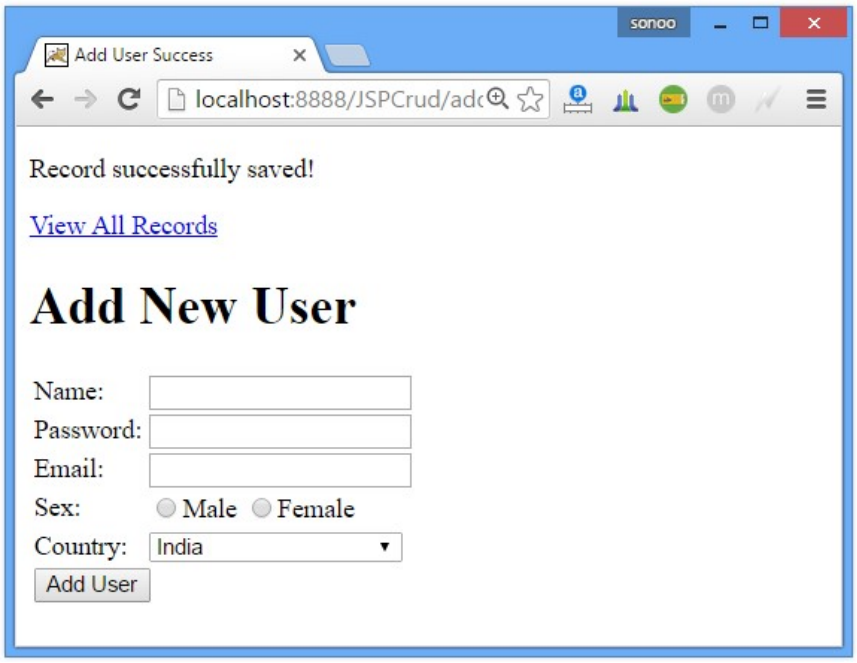
deleteuser.jsp

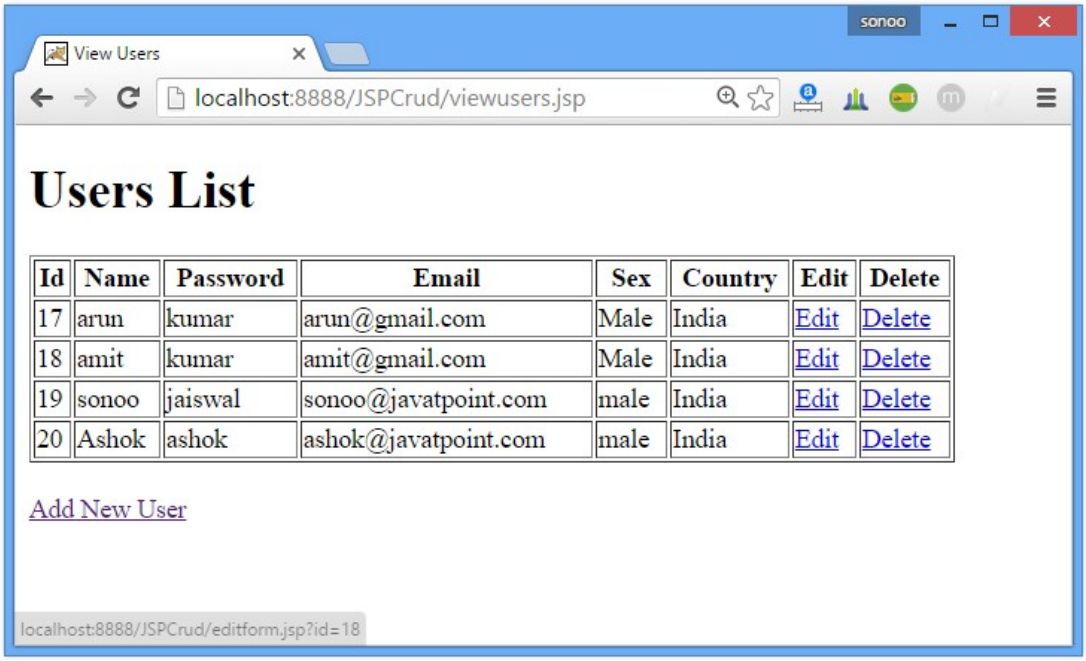
```
<%@page import="com.javatpoint.dao.UserDao"%>
```

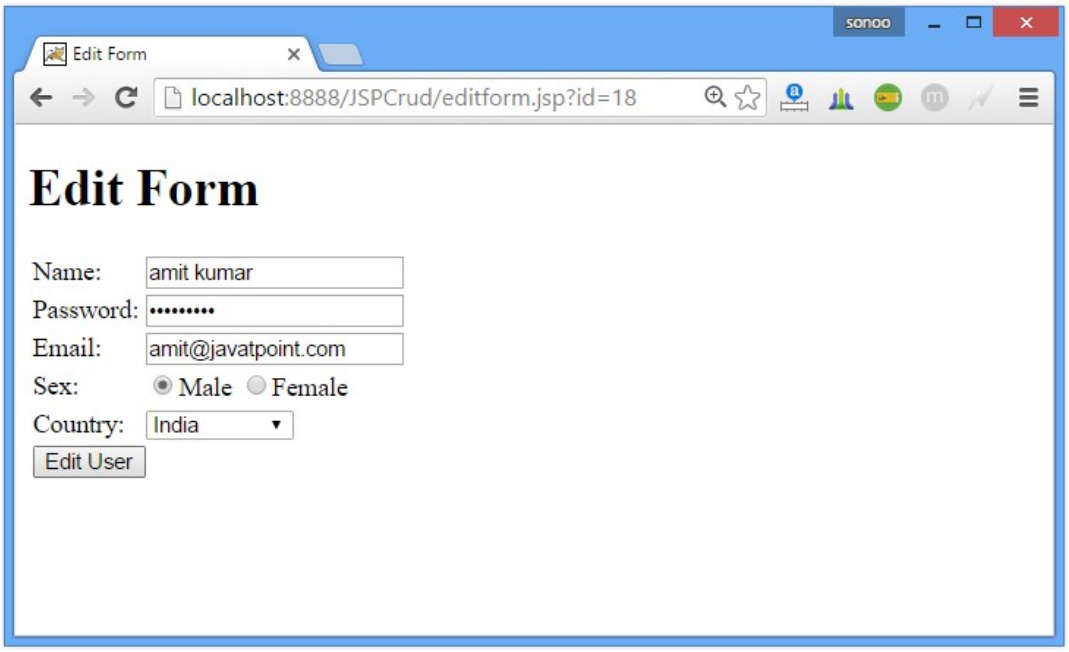
```
<jsp:useBean id="u" class="com.javatpoint.bean.User"></jsp:useBean>
<jsp:setProperty property="*" name="u"/>
<%
UserDao.delete(u);
response.sendRedirect("viewusers.jsp");
%>
```

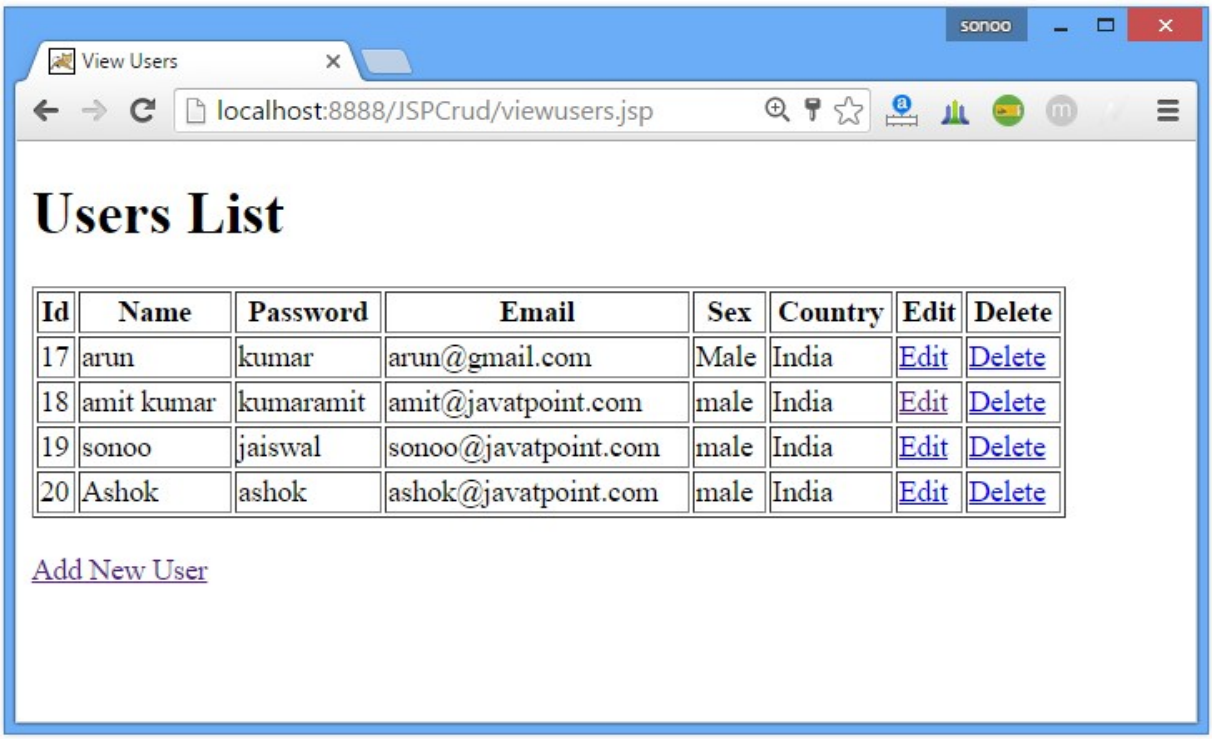
Output

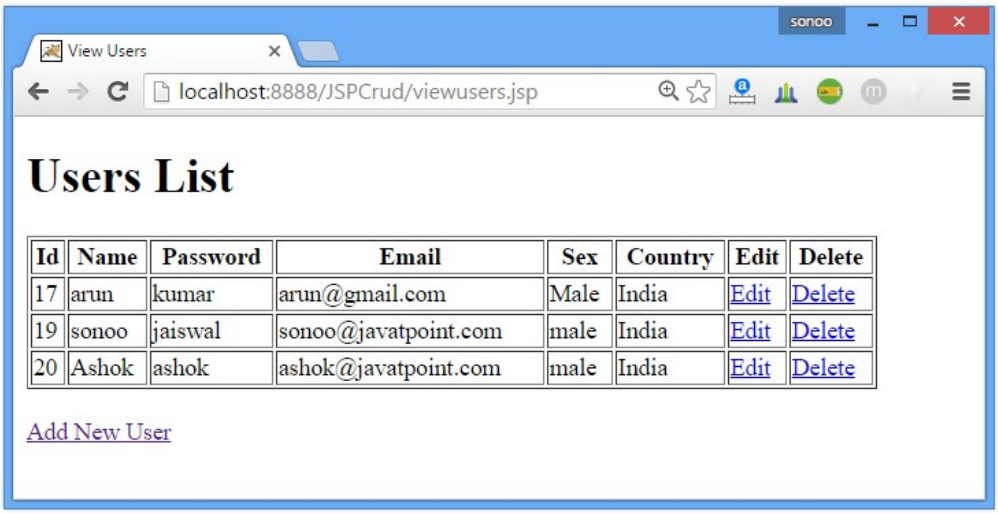



sonoo
Add User Success
localhost:8888/JSPCrud/adc
Record successfully saved!
View All Records
Add New User
Name:
Password:
Email:
Sex: Male Female
Country: India
Add User


sonoo
View Users
localhost:8888/JSPCrud/viewusers.jsp
Users List
Id Name Password Email Sex Country Edit Delete
17 arun kumar arun@gmail.com Male India Edit Delete
18 amit kumar amit@gmail.com Male India Edit Delete
19 sonoo jaiswal sonoo@javatpoint.com male India Edit Delete
20 Ashok ashok ashok@javatpoint.com male India Edit Delete
Add New User
localhost:8888/JSPCrud/editform.jsp?id=18


sonoo
Edit Form
localhost:8888/JSPCrud/editform.jsp?id=18
Edit Form
Name:
amit kumar
Password:
Email:
amit@javatpoint.com
Sex:
Male
Female
Country:
India
Edit User


sonoo
View Users
localhost:8888/JSPCrud/viewusers.jsp
Users List
Id
Name
Password
Email
Sex
Country
Edit
Delete
17
arun
kumar
arun@gmail.com
Male
India
Edit
Delete
18
amit kumar
kumaramit
amit@javatpoint.com
male
India
Edit
Delete
19
sonoo
jaiswal
sonoo@javatpoint.com
male
India
Edit
Delete
20
Ashok
ashok
ashok@javatpoint.com
male
India
Edit
Delete
Add New User



Users List

Id	Name	Password	Email	Sex	Country	Edit	Delete
17	arun	kumar	arun@gmail.com	Male	India	Edit	Delete
19	sonoo	jaiswal	sonoo@javatpoint.com	male	India	Edit	Delete
20	Ashok	ashok	ashok@javatpoint.com	male	India	Edit	Delete

Add New User

Addition.java (Practical 1B)

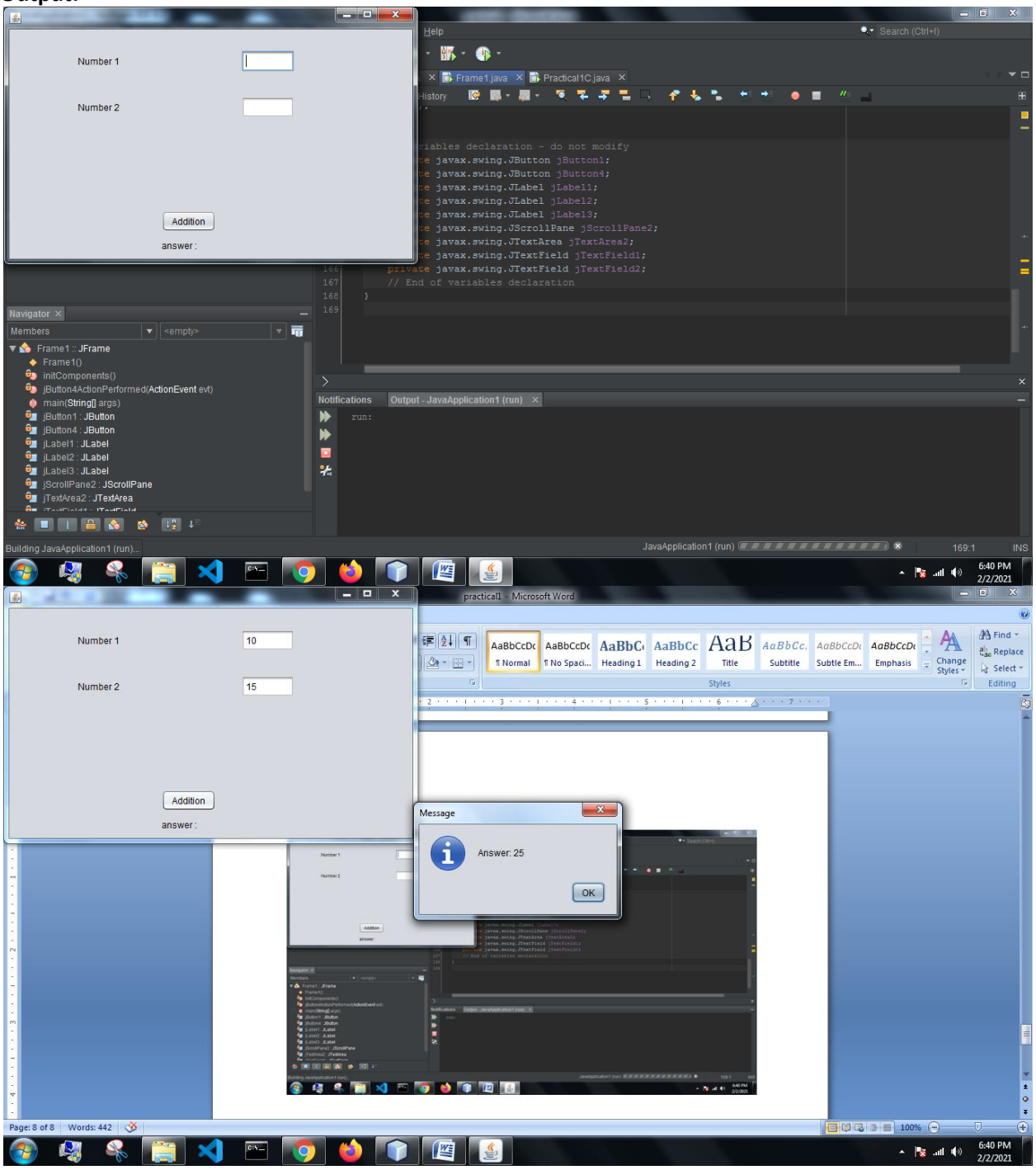
```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

/**
 *
 * @author Nikhil
 */
public class Frame1 extends javax.swing.JFrame {

    /**
     * Creates new form Frame1
     */
    public Frame1() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        jButton1 = new javax.swing.JButton();
        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        jButton4 = new javax.swing.JButton();
        jScrollPane2 = new javax.swing.JScrollPane();
        jTextArea2 = new javax.swing.JTextArea();
        jTextField1 = new javax.swing.JTextField();
        jTextField2 = new javax.swing.JTextField();

        jButton1.setText("jButton1");

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        jLabel1.setText("Number 1");

        jLabel2.setText("Number 2");

        jLabel3.setText("answer :");
```

```
        jButton4.setText("Addition");
        jButton4.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton4ActionPerformed(evt);
            }
        });

        jTextArea2.setColumns(20);
        jTextArea2.setRows(5);
        jScrollPane2.setViewportView(jTextArea2);

        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()
                        .addGap(91, 91, 91)
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addComponent(jLabel2)
                            .addComponent(jLabel1))
                        .addGap(162, 162, 162)
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addGroup(layout.createSequentialGroup()
                                .addGap(20, 20, 20)
                                .addComponent(jScrollPane2, javax.swing.GroupLayout.PREFERRED_SIZE, 142,
javax.swing.GroupLayout.PREFERRED_SIZE))
                            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING,
false)
                                .addComponent(jTextField1, javax.swing.GroupLayout.Alignment.LEADING,
javax.swing.GroupLayout.DEFAULT_SIZE, 70, Short.MAX_VALUE)
                                .addComponent(jTextField2, javax.swing.GroupLayout.Alignment.LEADING))))
                    .addGroup(layout.createSequentialGroup()
                        .addGap(202, 202, 202)
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addComponent(jButton4)
                            .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 85,
javax.swing.GroupLayout.PREFERRED_SIZE))))
                .addContainerGap(65, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(28, 28, 28)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```
            .addComponent(jScrollPane2, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 0, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
               .addComponent(jLabel1)
               .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
         .addGap(33, 33, 33)
         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel2)
            .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
         .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 123,
Short.MAX_VALUE)
         .addComponent(jButton4)
         .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
         .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 24,
javax.swing.GroupLayout.PREFERRED_SIZE)
         .addContainerGap())
      );

      pack();
   }// </editor-fold>

   private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
      // TODO add your handling code here:

      int n1=Integer.parseInt(jTextField1.getText());
      int n2=Integer.parseInt(jTextField2.getText());
      int c= n1+n2;
      jLabel3.setText("answer: "+c);
      //JOptionPane.showMessageDialog(null,"Answer: "+c);
   }

   /**
    * @param args the command line arguments
    */
   public static void main(String args[]) {
      /* Set the Nimbus look and feel */
      //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
      /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
       * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
       */
      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(Frame1.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
      } catch (InstantiationException ex) {
          java.util.logging.Logger.getLogger(Frame1.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
      } catch (IllegalAccessException ex) {
          java.util.logging.Logger.getLogger(Frame1.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
      } catch (javax.swing.UnsupportedLookAndFeelException ex) {
          java.util.logging.Logger.getLogger(Frame1.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
      }
      //</editor-fold>

      /* Create and display the form */
      java.awt.EventQueue.invokeLater(new Runnable() {
          public void run() {
              new Frame1().setVisible(true);
          }
      });
  }

  // Variables declaration - do not modify
  private javax.swing.JButton jButton1;
  private javax.swing.JButton jButton4;
  private javax.swing.JLabel jLabel1;
  private javax.swing.JLabel jLabel2;
  private javax.swing.JLabel jLabel3;
  private javax.swing.JScrollPane jScrollPane2;
  private javax.swing.JTextArea jTextArea2;
  private javax.swing.JTextField jTextField1;
  private javax.swing.JTextField jTextField2;
  // End of variables declaration
}
```

Output:


Number 1
Number 2
Addition
answer :
Number 1
10
Number 2
15
Addition
answer :
Message
Answer: 25
OK

Calculator.java (Practical 1C)

```
import javax.swing.JOptionPane;

/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

/**
 *
 * @author Nikhil
 */
public class Practical1C extends javax.swing.JFrame {

    /**
     * Creates new form Practical1C
     */
    public Practical1C() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jTextField1 = new javax.swing.JTextField();
        jTextField2 = new javax.swing.JTextField();
        jComboBox1 = new javax.swing.JComboBox<>();
        jLabel3 = new javax.swing.JLabel();
        jLabel4 = new javax.swing.JLabel();
        jButton1 = new javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
```

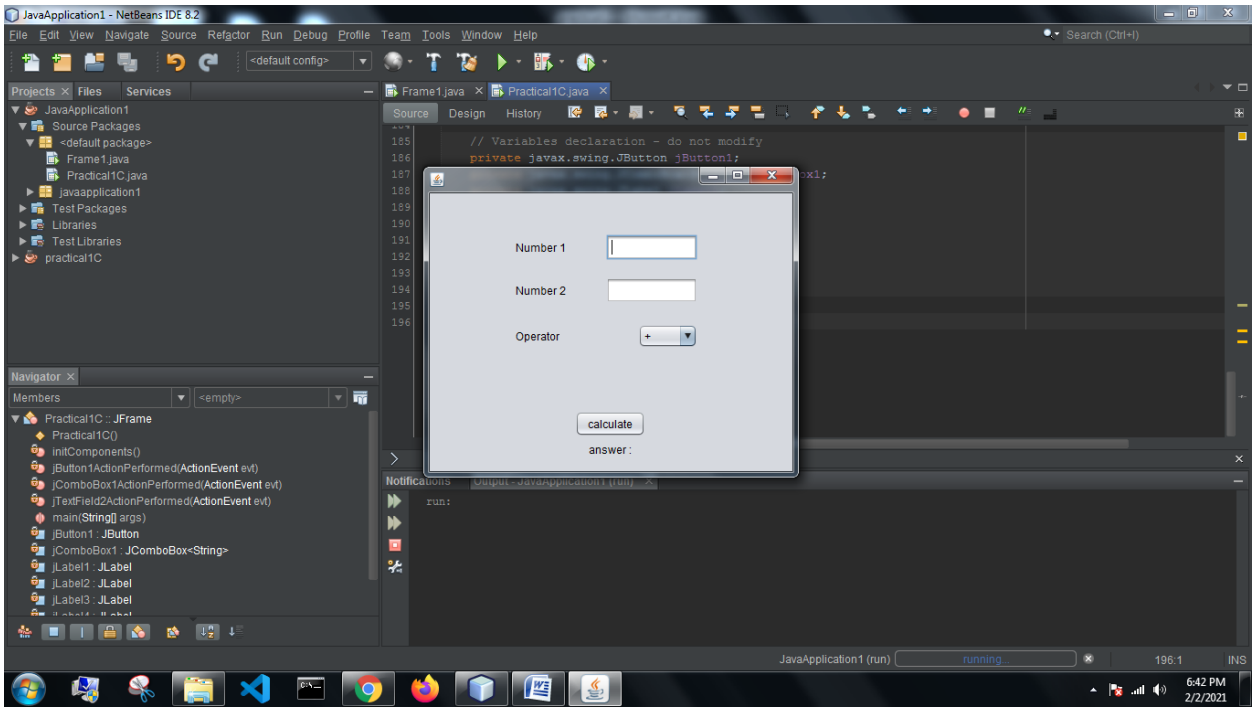
```
        jLabel1.setText("Number 1");

        jLabel2.setText("Number 2");

        jTextField2.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jTextField2ActionPerformed(evt);
            }
        });

        jComboBox1.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "+", "-", "X", "/",
"%" }));
        jComboBox1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jComboBox1ActionPerformed(evt);
            }
        });

        jLabel3.setText("Operator");

        jLabel4.setText("answer :");

        jButton1.setText("calculate");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(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()
                .addGap(94, 94, 94)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                    .addGroup(layout.createSequentialGroup()
                        .addComponent(jLabel3)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 86,
Short.MAX_VALUE)
                        .addComponent(jComboBox1, javax.swing.GroupLayout.PREFERRED_SIZE, 65,
javax.swing.GroupLayout.PREFERRED_SIZE))
```

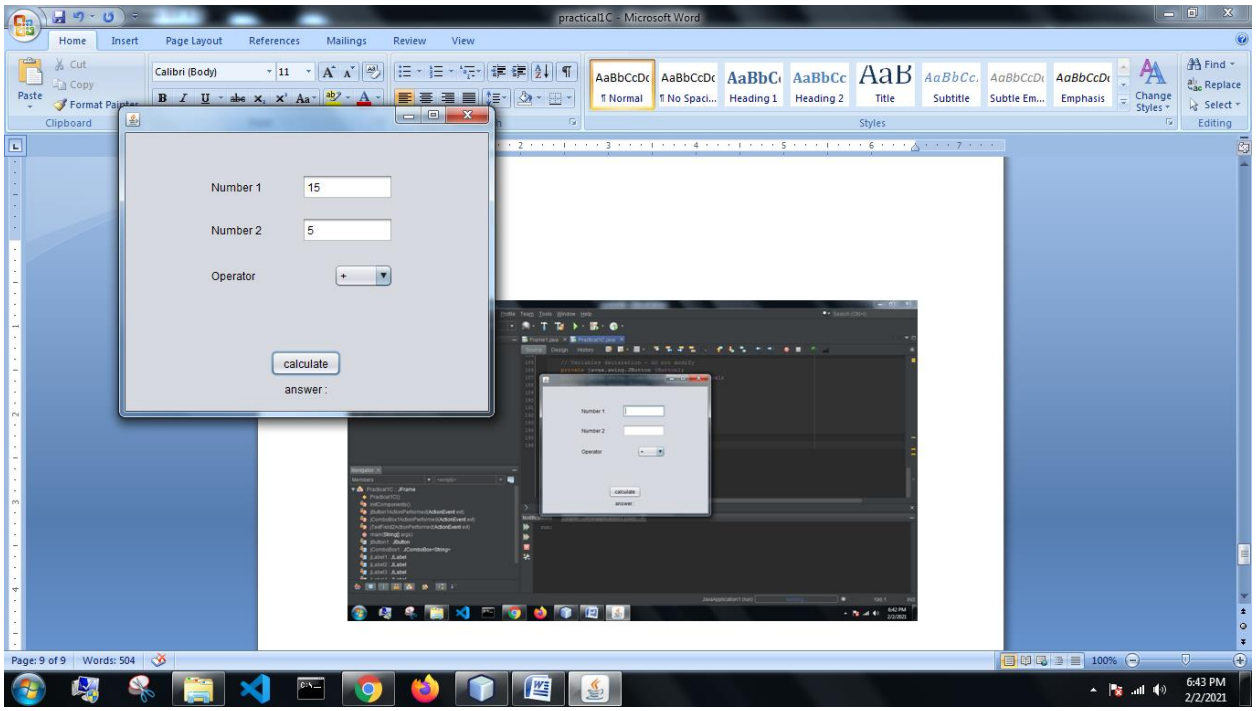
```
            .addGroup(layout.createSequentialGroup()
              .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jLabel1)
                .addComponent(jLabel2))
              .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
              .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                .addComponent(jTextField1, javax.swing.GroupLayout.DEFAULT_SIZE, 100,
Short.MAX_VALUE)
                .addComponent(jTextField2))))
          .addGap(87, 104, Short.MAX_VALUE))
        .addGroup(layout.createSequentialGroup()
          .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
              .addGap(174, 174, 174)
              .addComponent(jLabel4))
            .addGroup(layout.createSequentialGroup()
              .addGap(159, 159, 159)
              .addComponent(jButton1)))
          .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
      );
      layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
          .addGap(45, 45, 45)
          .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel1)
            .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
          .addGap(19, 19, 19)
          .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel2)
            .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
          .addGap(23, 23, 23)
          .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel3)
            .addComponent(jComboBox1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
          .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 69,
Short.MAX_VALUE)
          .addComponent(jButton1)
```

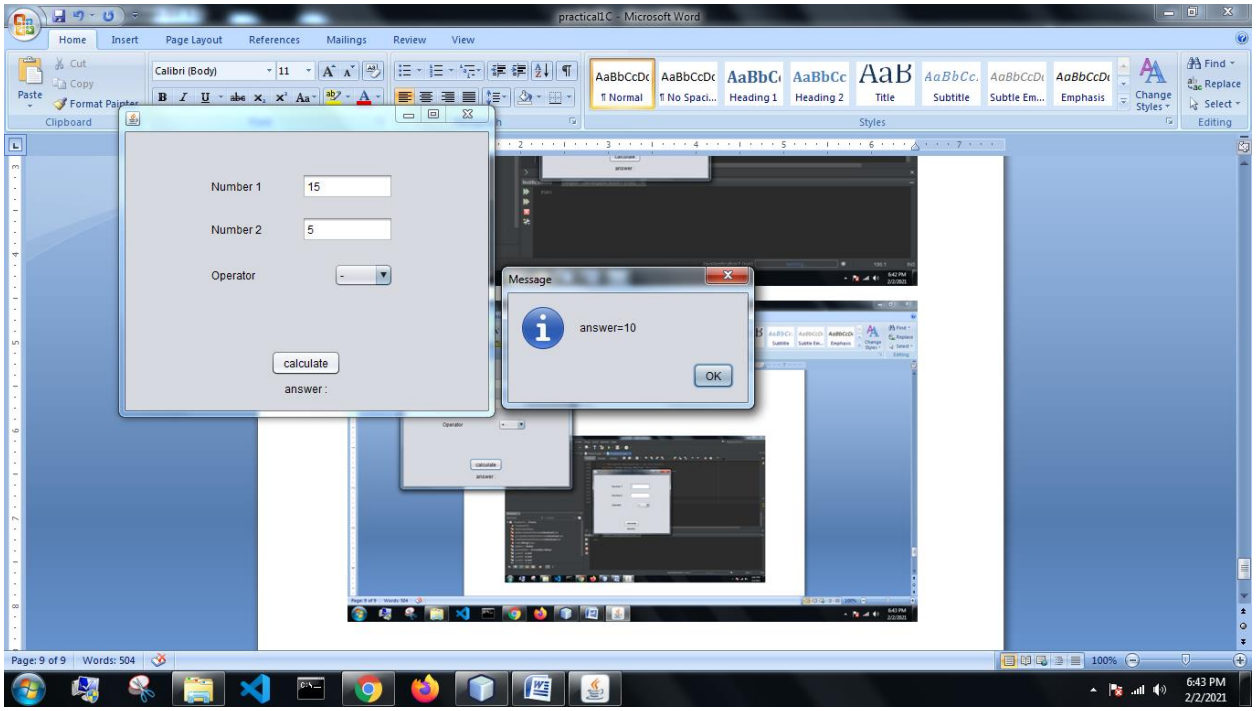
```
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addComponent(jLabel4)
            .addGap(16, 16, 16))
        );

        pack();
    }// </editor-fold>

    private void jComboBox1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:

    }

    private void jTextField2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String o=jComboBox1.getSelectedItem().toString();
        int n1=Integer.parseInt(jTextField1.getText());
        int n2=Integer.parseInt(jTextField2.getText());
        int c = 0;
        if(o.equals("+")){c=n1+n2;}
        if(o.equals("-")){c=n1-n2;}
        if(o.equals("X")){c=n1*n2;}
        if(o.equals("/")){c=n1/n2;}
        if(o.equals("%")){c=n1%n2;}

        JOptionPane.showMessageDialog(null,"answer="+c );
    }

    /**
     * @param args the command line arguments
     */
    public static void main(String args[]) {
        /* Set the Nimbus look and feel */
        //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
        /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
         * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
         */
        try {
```

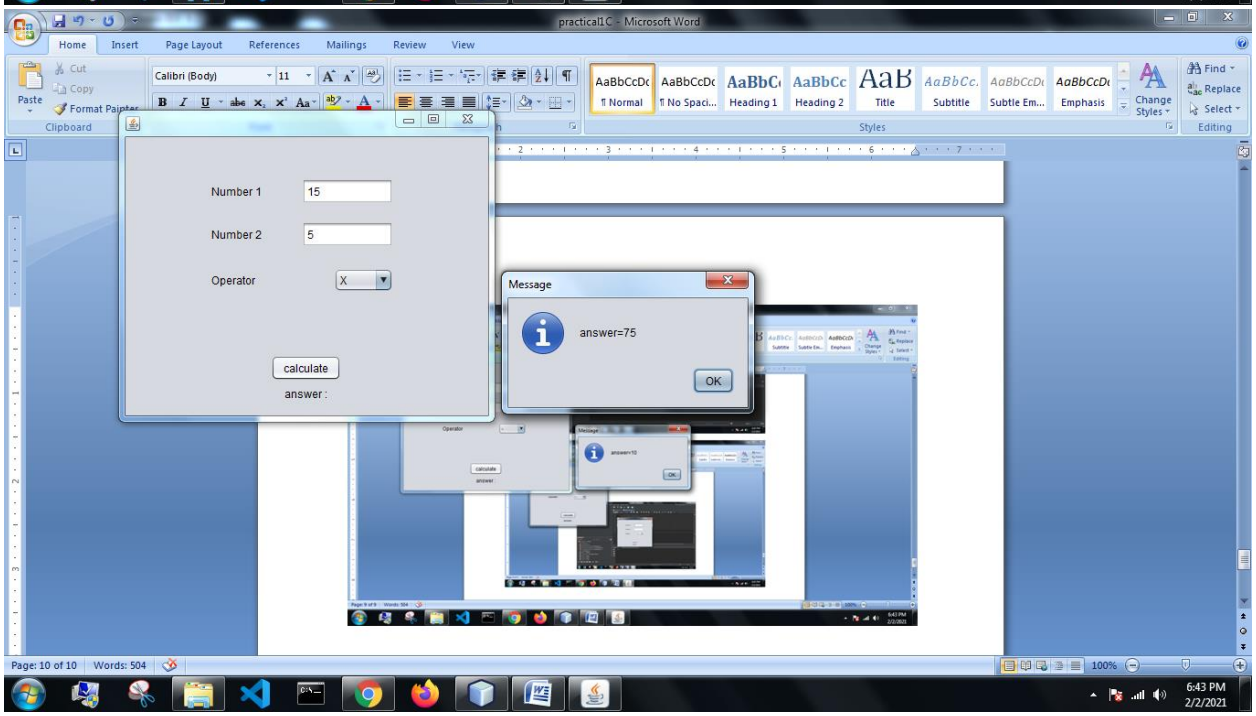
```
        for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
            if ("Nimbus".equals(info.getName())) {
                javax.swing.UIManager.setLookAndFeel(info.getClassName());
                break;
            }
        }
    } catch (ClassNotFoundException ex) {
        java.util.logging.Logger.getLogger(Practical1C.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (InstantiationException ex) {
        java.util.logging.Logger.getLogger(Practical1C.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (IllegalAccessException ex) {
        java.util.logging.Logger.getLogger(Practical1C.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
        java.util.logging.Logger.getLogger(Practical1C.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    }
    //</editor-fold>

    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new Practical1C().setVisible(true);
        }
    });
  }

  // Variables declaration - do not modify
  private javax.swing.JButton jButton1;
  private javax.swing.JComboBox<String> jComboBox1;
  private javax.swing.JLabel jLabel1;
  private javax.swing.JLabel jLabel2;
  private javax.swing.JLabel jLabel3;
  private javax.swing.JLabel jLabel4;
  private javax.swing.JTextField jTextField1;
  private javax.swing.JTextField jTextField2;
  // End of variables declaration
}
```

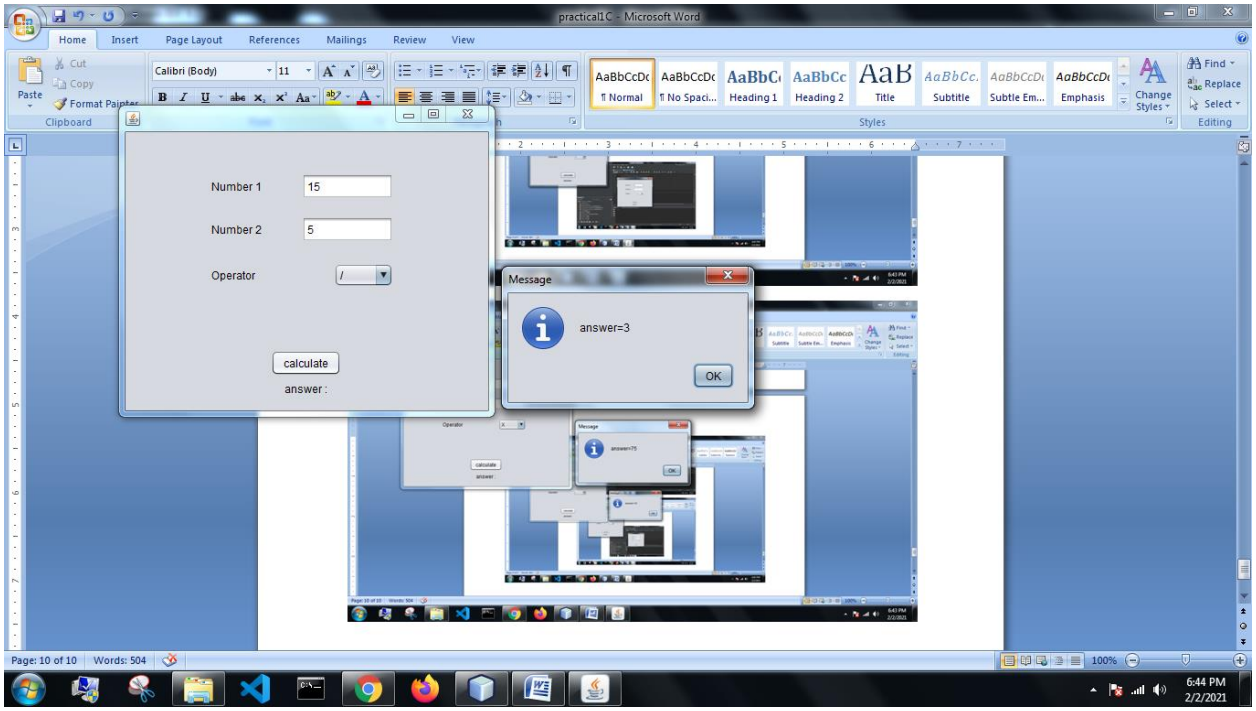
Output:

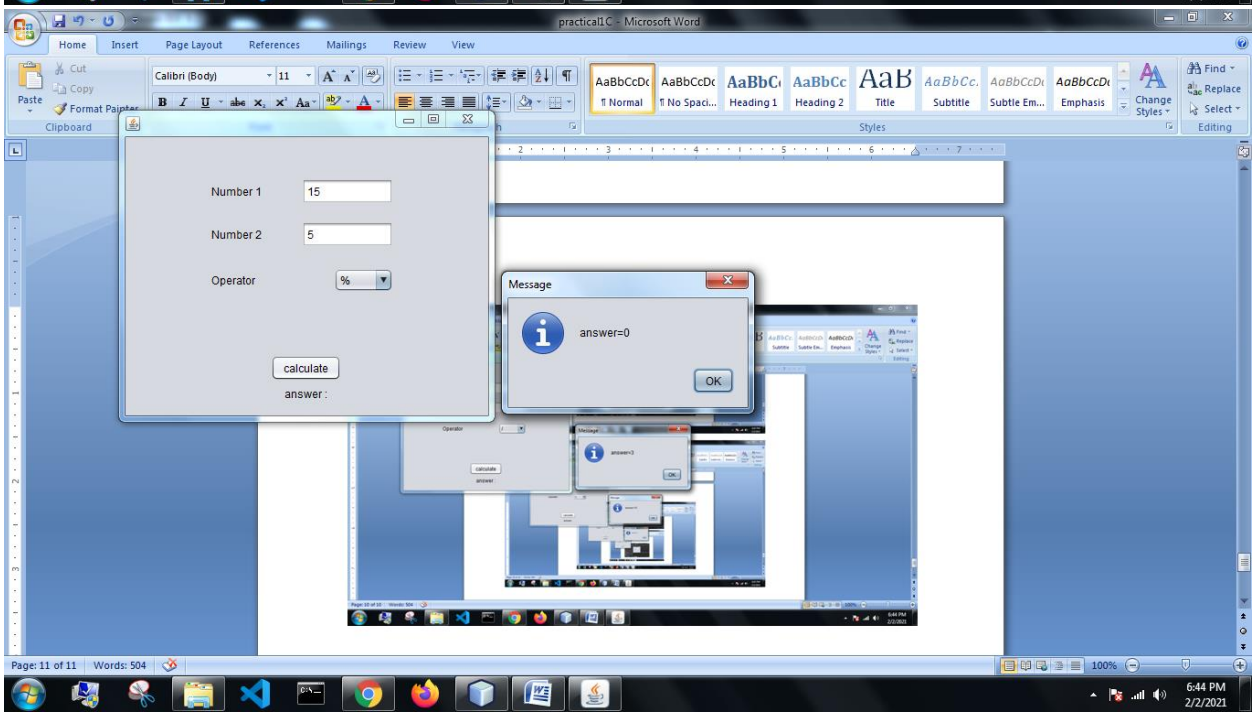

JavaApplication1 - NetBeans IDE 8.2
Number 1
Number 2
Operator
calculate
answer :


practical1C - Microsoft Word
Number 1
15
Number 2
5
Operator
calculate
answer :


practical1C - Microsoft Word
Number 1
15
Number 2
5
Operator
-
calculate
answer :
Message
answer=10
OK


practical1C - Microsoft Word
Number 1
15
Number 2
5
Operator
X
calculate
answer :
Message
answer=75
OK


practical1C - Microsoft Word
Number 1
15
Number 2
5
Operator
/
calculate
answer :
Message
answer=3
OK
Page: 10 of 10
Words: 504
6:44 PM
2/2/2021


practical1C - Microsoft Word
Number 1
15
Number 2
5
Operator
%
calculate
answer :
Message
answer=0
OK
Page: 11 of 11
Words: 504
6:44 PM
2/2/2021

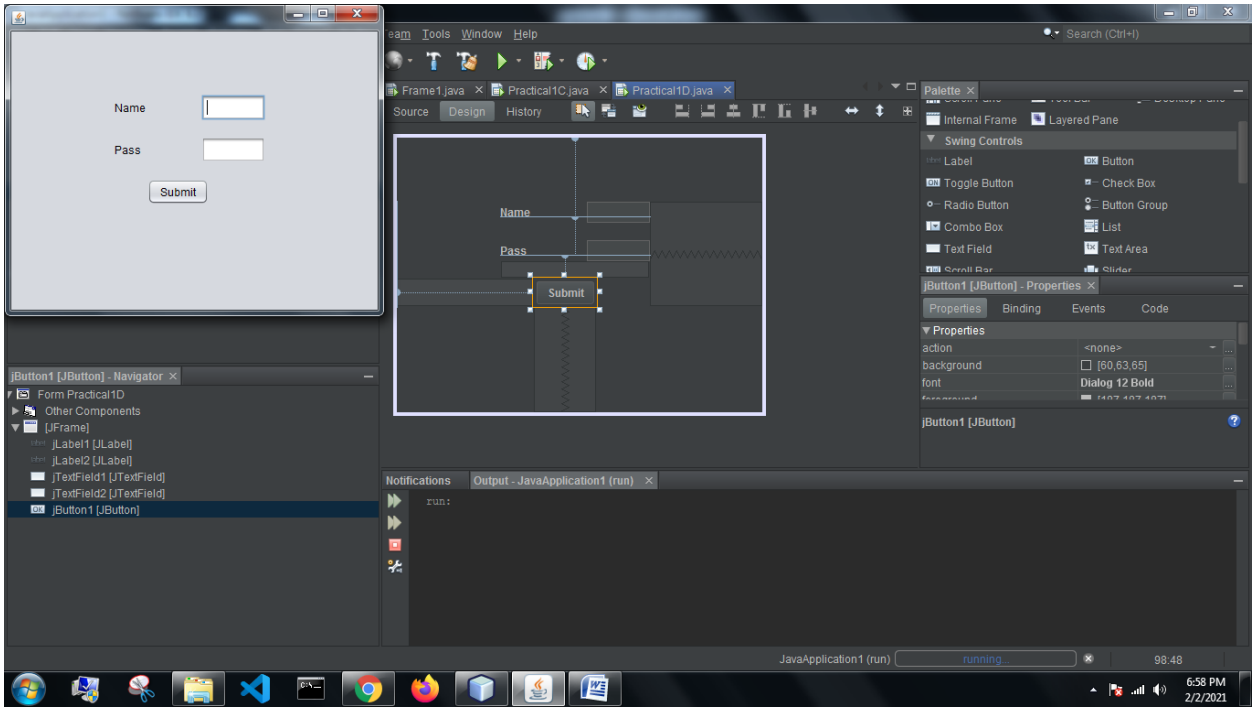
Login.java (Practical 1D)

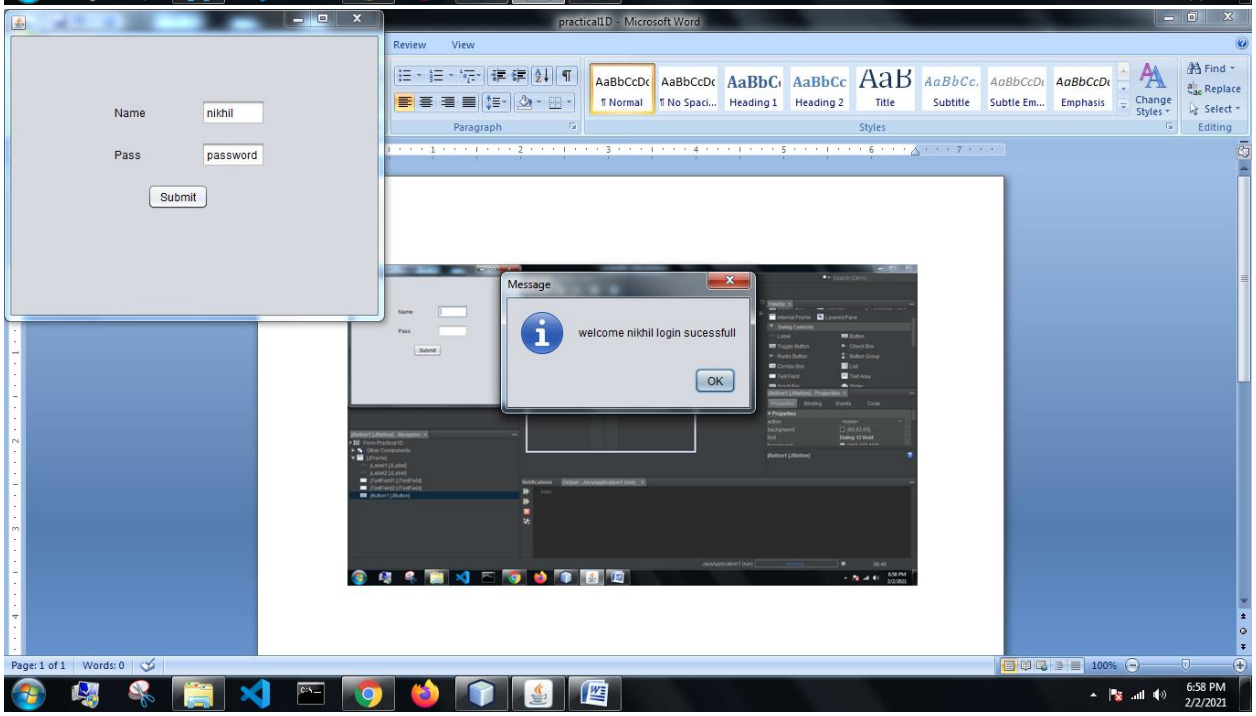
```
import javax.swing.JOptionPane;

/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

/**
 *
 * @author Nikhil
 */
public class Practical1D extends javax.swing.JFrame {

    /**
     * Creates new form Practical1D
     */
    public Practical1D() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jTextField1 = new javax.swing.JTextField();
        jTextField2 = new javax.swing.JTextField();
        jButton1 = new javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        jLabel1.setText("Name");

        jLabel2.setText("Pass");
```

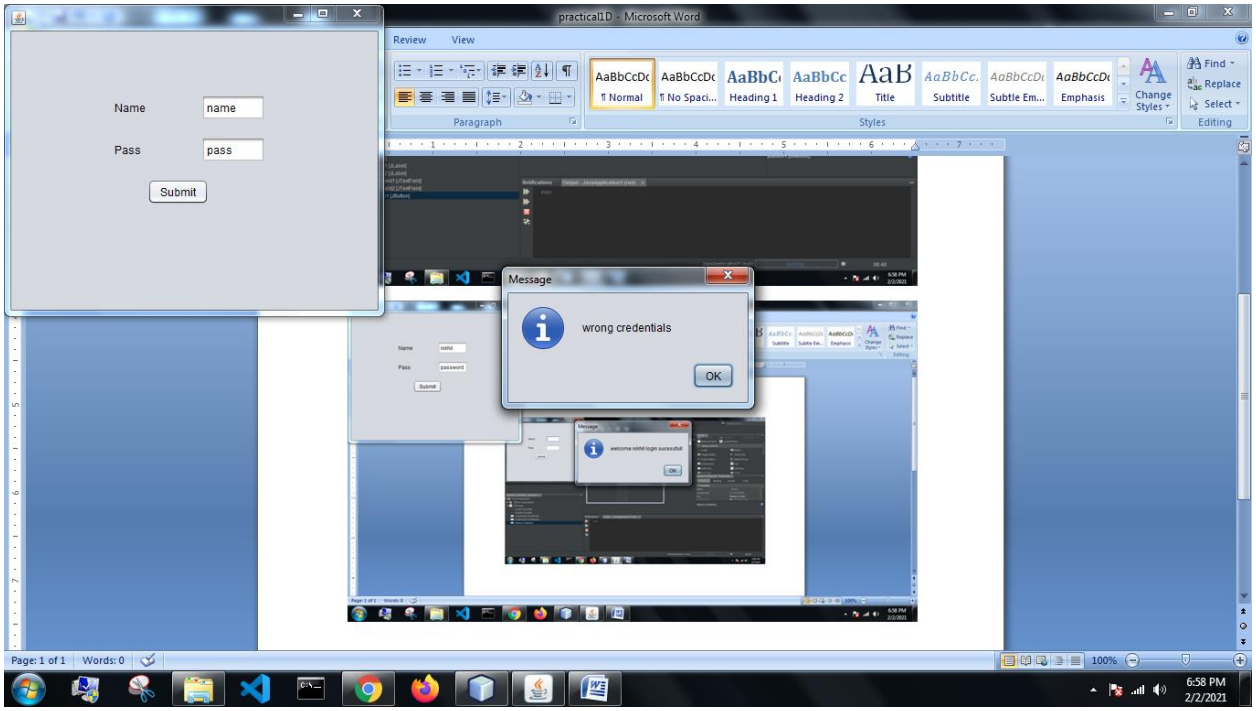
```
        jButton1.setText("Submit");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
            }
        });

        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()
                        .addGap(113, 113, 113)
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addComponent(jLabel1)
                            .addComponent(jLabel2))
                        .addGap(61, 61, 61)
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                            .addComponent(jTextField2, javax.swing.GroupLayout.DEFAULT_SIZE, 70,
Short.MAX_VALUE)
                            .addComponent(jTextField1)))
                    .addGroup(layout.createSequentialGroup()
                        .addGap(149, 149, 149)
                        .addComponent(jButton1)))
                .addContainerGap(123, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(69, 69, 69)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel1)
                    .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(18, 18, 18)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel2)
                    .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
```

```
            .addGap(18, 18, 18)
            .addComponent(jButton1)
            .addContainerGap(115, Short.MAX_VALUE))
        );

        pack();
    }// </editor-fold>

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String a=jTextField1.getText();
        String b=jTextField2.getText();
        if(a.equals("nikhil") && b.equals("password") ){
            JOptionPane.showMessageDialog(null,"welcome "+a+" login sucessfull");
        }
        else{
            JOptionPane.showMessageDialog(null," wrong credentials");
        }
    }

    /**
     * @param args the command line arguments
     */
    public static void main(String args[]) {
        /* Set the Nimbus look and feel */
        //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
        /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
         * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
         */
        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(Practical1D.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
        } catch (InstantiationException ex) {
```

```
            java.util.logging.Logger.getLogger(Practical1D.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(Practical1D.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(Practical1D.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
        }
        //</editor-fold>

        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new Practical1D().setVisible(true);
            }
        });
    }

    // Variables declaration - do not modify
    private javax.swing.JButton jButton1;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JTextField jTextField1;
    private javax.swing.JTextField jTextField2;
    // End of variables declaration
}
```


Name
Pass
Submit
Frame1.java
Practical1C.java
Practical1D.java
Source
Design
History
Palette
Swing Controls
Label
Button
Toggle Button
Check Box
Radio Button
Button Group
Combo Box
List
Text Field
Text Area
jButton1 [JButton] - Properties
Properties
Binding
Events
Code
action
background
font
Dialog 12 Bold
jButton1 [JButton] - Navigator
Form Practical1D
Other Components
[JFrame]
jLabel1 [JLabel]
jLabel2 [JLabel]
jTextField1 [JTextField]
jTextField2 [JTextField]
jButton1 [JButton]
Notifications
Output - JavaApplication1 (run)
run:
JavaApplication1 (run)
running...
98:48
6:58 PM
2/2/2021


Name
nikhil
Pass
password
Submit
practical1D - Microsoft Word
Review
View
Paragraph
Styles
Editing
Message
welcome nikhil login sucessfull
OK
Page: 1 of 1
Words: 0
100%
6:58 PM
2/2/2021


Name
name
Pass
pass
Submit
practical1D - Microsoft Word
Review
View
Message
wrong credentials
OK
Page: 1 of 1
Words: 0
100%
6:58 PM
2/2/2021

Registration.java (Practical 1E)

```
import java.util.Arrays;
import javax.swing.JOptionPane;

/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

/**
 *
 * @author Nikhil
 */
public class Practical1E extends javax.swing.JFrame {

    /**
     * Creates new form Practical1E
     */
    public Practical1E() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        buttonGroup1 = new javax.swing.ButtonGroup();
        jLabel1 = new javax.swing.JLabel();
        jTextField1 = new javax.swing.JTextField();
        jLabel2 = new javax.swing.JLabel();
        jTextField2 = new javax.swing.JTextField();
        jLabel3 = new javax.swing.JLabel();
        jTextField3 = new javax.swing.JTextField();
        jLabel4 = new javax.swing.JLabel();
        jRadioButton1 = new javax.swing.JRadioButton();
        jRadioButton2 = new javax.swing.JRadioButton();
```

```
jRadioButton3 = new javax.swing.JRadioButton();
jLabel5 = new javax.swing.JLabel();
jComboBox1 = new javax.swing.JComboBox<>();
jLabel6 = new javax.swing.JLabel();
jCheckBox1 = new javax.swing.JCheckBox();
jCheckBox2 = new javax.swing.JCheckBox();
jCheckBox3 = new javax.swing.JCheckBox();
jLabel7 = new javax.swing.JLabel();
jScrollPane1 = new javax.swing.JScrollPane();
jTextArea1 = new javax.swing.JTextArea();
jButton1 = new javax.swing.JButton();
jLabel8 = new javax.swing.JLabel();
jPasswordField1 = new javax.swing.JPasswordField();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

jLabel1.setText("Name");

jLabel2.setText("Email");

jLabel3.setText("Age");

jLabel4.setText("Gender");

buttonGroup1.add(jRadioButton1);
jRadioButton1.setText("Male");
jRadioButton1.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      jRadioButton1ActionPerformed(evt);
   }
});

buttonGroup1.add(jRadioButton2);
jRadioButton2.setText("Female");

buttonGroup1.add(jRadioButton3);
jRadioButton3.setText("Other");
jRadioButton3.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      jRadioButton3ActionPerformed(evt);
   }
});
```

```
        jLabel5.setText("Last Exam Passed");

        jComboBox1.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "SSC", "HSC",
"Graduate", "Post Graduate", "PhD" }));

        jLabel6.setText("Hobbies");

        jCheckBox1.setText("Chess");

        jCheckBox2.setText("Swimming");

        jCheckBox3.setText("Singing");
        jCheckBox3.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jCheckBox3ActionPerformed(evt);
            }
        });

        jLabel7.setText("Address");

        jTextArea1.setColumns(20);
        jTextArea1.setRows(5);
        jScrollPane1.setViewportView(jTextArea1);

        jButton1.setText("Submit");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
            }
        });

        jLabel8.setText("Password");

        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()
                        .addGap(23, 23, 23)
```

```
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                  .addComponent(jLabel1)
                  .addComponent(jLabel2)
                  .addComponent(jLabel3)
                  .addComponent(jLabel4)
                  .addComponent(jLabel8))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 210,
Short.MAX_VALUE)
                .addComponent(jRadioButton1)
                .addGap(18, 18, 18)
                .addComponent(jRadioButton2)
                .addGap(18, 18, 18)
                .addComponent(jRadioButton3))
              .addGroup(layout.createSequentialGroup()
                .addGap(27, 27, 27)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                  .addComponent(jLabel5)
                  .addComponent(jLabel6)
                  .addComponent(jLabel7))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 91,
Short.MAX_VALUE)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                  .addGroup(layout.createSequentialGroup()
                    .addComponent(jCheckBox1)
                    .addGap(33, 33, 33)
                    .addComponent(jCheckBox2)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 44,
Short.MAX_VALUE)
                    .addComponent(jCheckBox3))
                  .addGroup(layout.createSequentialGroup()
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
                      .addComponent(jTextField1, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, 156, Short.MAX_VALUE)
                      .addComponent(jTextField2, javax.swing.GroupLayout.Alignment.TRAILING)
                      .addComponent(jTextField3, javax.swing.GroupLayout.Alignment.TRAILING)
                      .addComponent(jPasswordField1, javax.swing.GroupLayout.Alignment.TRAILING))
                    .addGap(76, 76, 76))
                  .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                    .addComponent(jComboBox1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
```

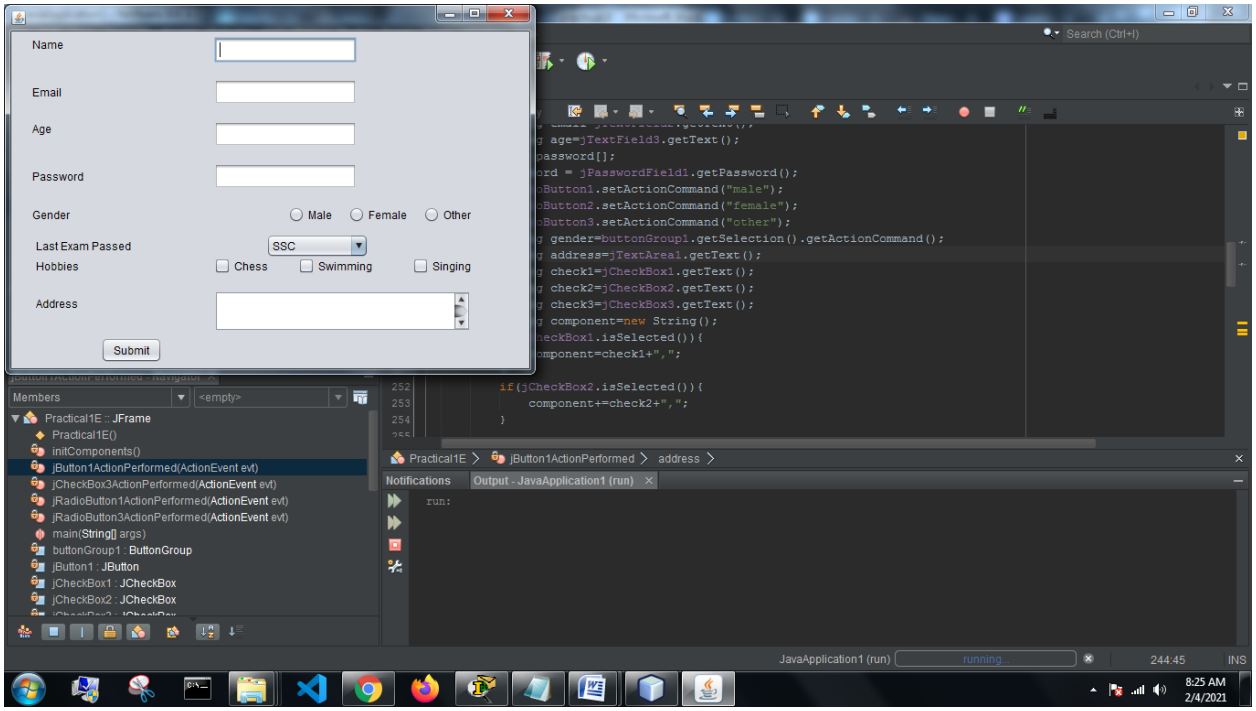
```
                    .addGap(112, 112, 112))
                .addComponent(jScrollPane1))))
            .addGap(64, 64, 64))
        .addGroup(layout.createSequentialGroup()
            .addGap(98, 98, 98)
            .addComponent(jButton1)
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addContainerGap()
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(18, 18, 18)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                        .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(jLabel2))
                    .addGap(18, 18, 18)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addComponent(jLabel3)
                        .addComponent(jTextField3, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addComponent(jLabel1))
            .addGap(18, 18, 18)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel8)
                .addComponent(jPasswordField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(19, 19, 19)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jRadioButton2)
                    .addComponent(jRadioButton3))
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jRadioButton1)
                    .addComponent(jLabel4)))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
```

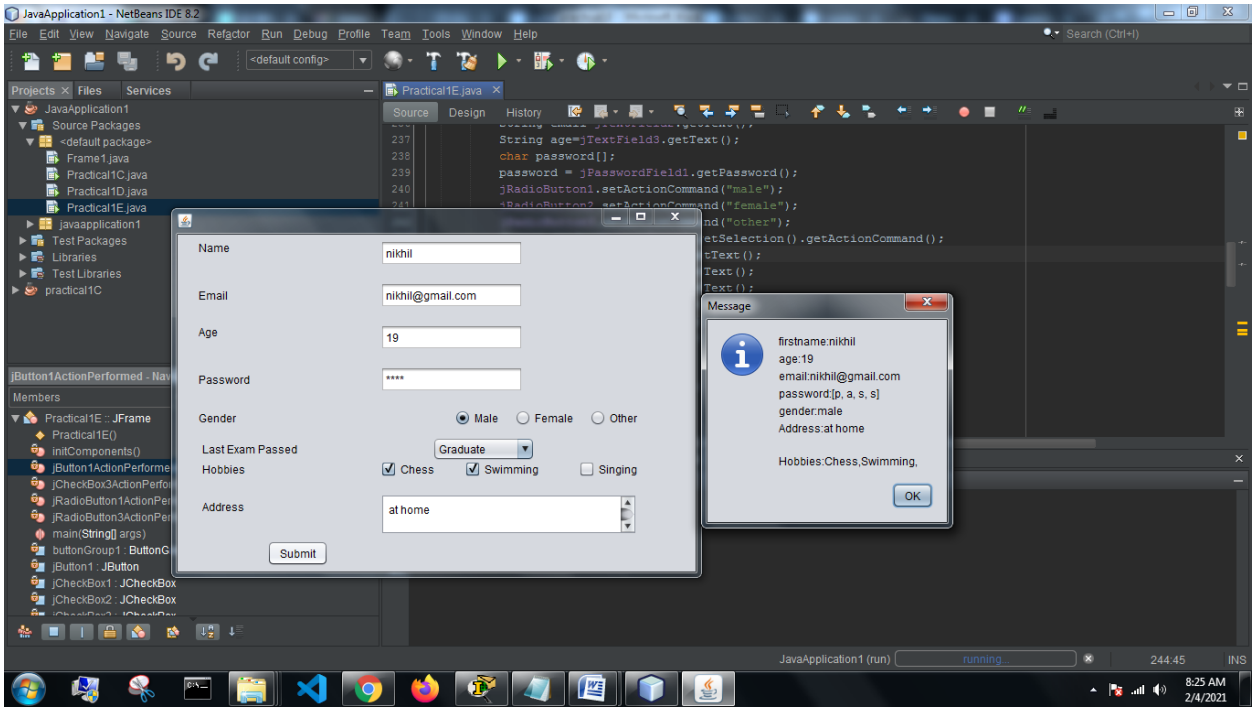
```
                .addComponent(jLabel5)
                .addComponent(jComboBox1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(42, 42, 42)
                    .addComponent(jLabel7))
                .addGroup(layout.createSequentialGroup()
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                        .addComponent(jCheckBox1)
                        .addComponent(jCheckBox2)
                        .addComponent(jLabel6)
                        .addComponent(jCheckBox3))
                    .addGap(18, 18, 18)
                    .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 45,
javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addComponent(jButton1)
            .addContainerGap())
        );

        pack();
    }// </editor-fold>

    private void jRadioButton3ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }

    private void jRadioButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }

    private void jCheckBox3ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String firstname=jTextField1.getText();
        String email=jTextField2.getText();
        String age=jTextField3.getText();
```

```
        char password[];
        password = jPasswordField1.getPassword();
        jRadioButton1.setActionCommand("male");
        jRadioButton2.setActionCommand("female");
        jRadioButton3.setActionCommand("other");
        String gender=buttonGroup1.getSelection().getActionCommand();
        String address=jTextArea1.getText();
        String check1=jCheckBox1.getText();
        String check2=jCheckBox2.getText();
        String check3=jCheckBox3.getText();
        String component=new String();
        if(jCheckBox1.isSelected()){
           component=check1+",";
        }
        if(jCheckBox2.isSelected()){
           component+=check2+",";
        }

        if(jCheckBox3.isSelected()){
           component+=check3+",";
        }
        String detail;

detail="firstname:"+firstname+"\nage:"+age+"\nemail:"+email+"\npassword:"+Arrays.toString(passwor
d)+"\ngender:"+gender+
                "\nAddress:"+address+"\nHobbies:"+component;
     JOptionPane.showMessageDialog(this,detail);


    }

    /**
     * @param args the command line arguments
     */
    public static void main(String args[]) {
        /* Set the Nimbus look and feel */
        //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
        /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
         * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
         */
        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(Practical1E.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (InstantiationException ex) {
        java.util.logging.Logger.getLogger(Practical1E.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (IllegalAccessException ex) {
        java.util.logging.Logger.getLogger(Practical1E.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
        java.util.logging.Logger.getLogger(Practical1E.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    }
    //</editor-fold>

    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new Practical1E().setVisible(true);
        }
    });
}

// Variables declaration - do not modify
private javax.swing.ButtonGroup buttonGroup1;
private javax.swing.JButton jButton1;
private javax.swing.JCheckBox jCheckBox1;
private javax.swing.JCheckBox jCheckBox2;
private javax.swing.JCheckBox jCheckBox3;
private javax.swing.JComboBox<String> jComboBox1;
private javax.swing.JLabel jLabel1;
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.JPasswordField jPasswordField1;
    private javax.swing.JRadioButton jRadioButton1;
    private javax.swing.JRadioButton jRadioButton2;
    private javax.swing.JRadioButton jRadioButton3;
    private javax.swing.JScrollPane jScrollPane1;
    private javax.swing.JTextArea jTextArea1;
    private javax.swing.JTextField jTextField1;
    private javax.swing.JTextField jTextField2;
    private javax.swing.JTextField jTextField3;
    // End of variables declaration
}
```


Name
Email
Age
Password
Gender
Male
Female
Other
Last Exam Passed
SSC
Hobbies
Chess
Swimming
Singing
Address
Submit


JavaApplication1 - NetBeans IDE 8.2
Name
nikhil
Email
nikhil@gmail.com
Age
19
Password
Gender
Male
Female
Other
Last Exam Passed
Graduate
Hobbies
Chess
Swimming
Singing
Address
at home
Submit
Message
firstname:nikhil
age:19
email:nikhil@gmail.com
password:[p, a, s, s]
gender:male
Address:at home
Hobbies:Chess,Swimming,
OK