ASSIGNMENT-02

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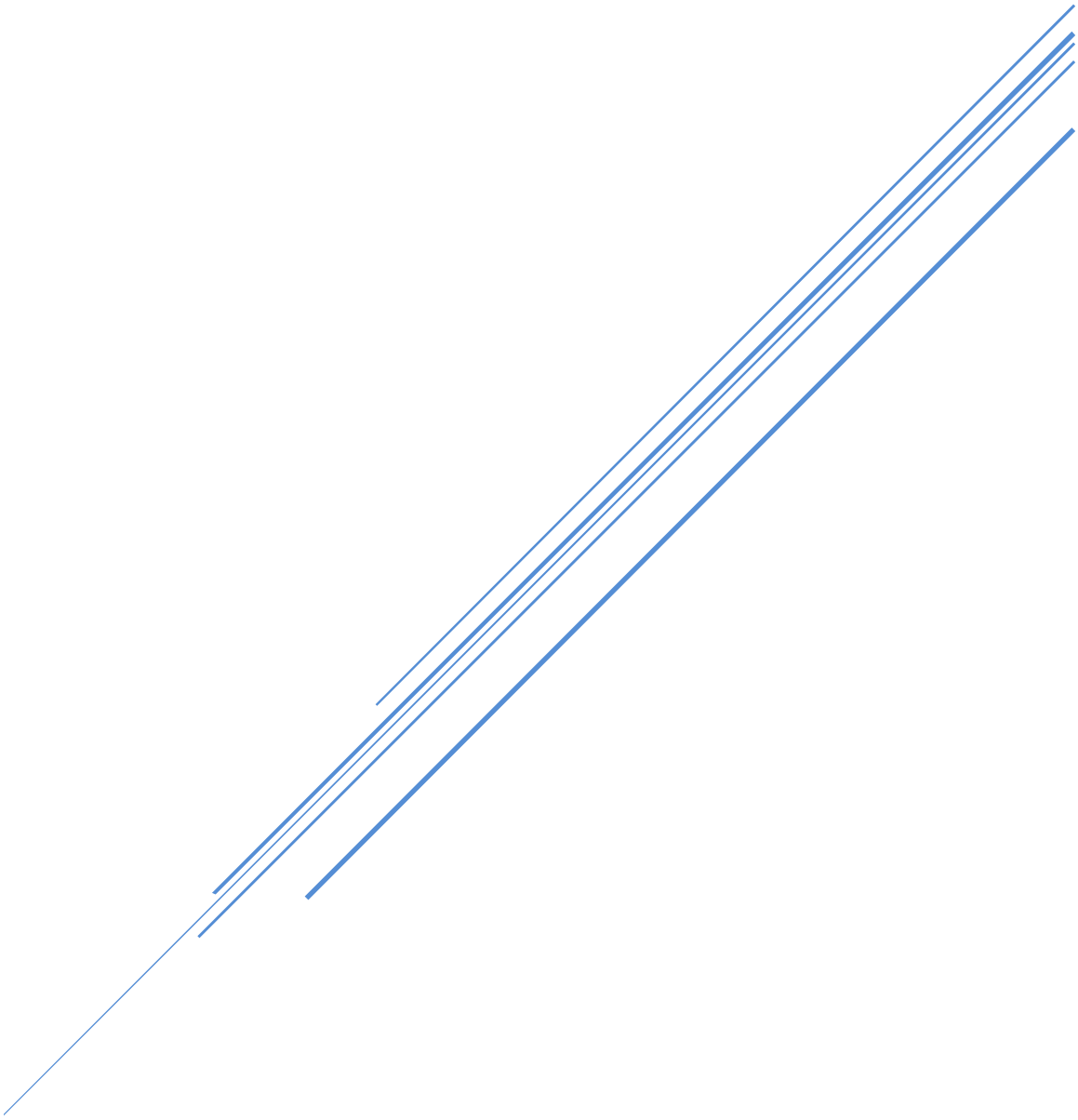

UNITED INTERNATIONAL UNIVERSITY

CSE 1115/CSI 211 (E): Object Oriented Programming/Object-Oriented Programming

Task-01

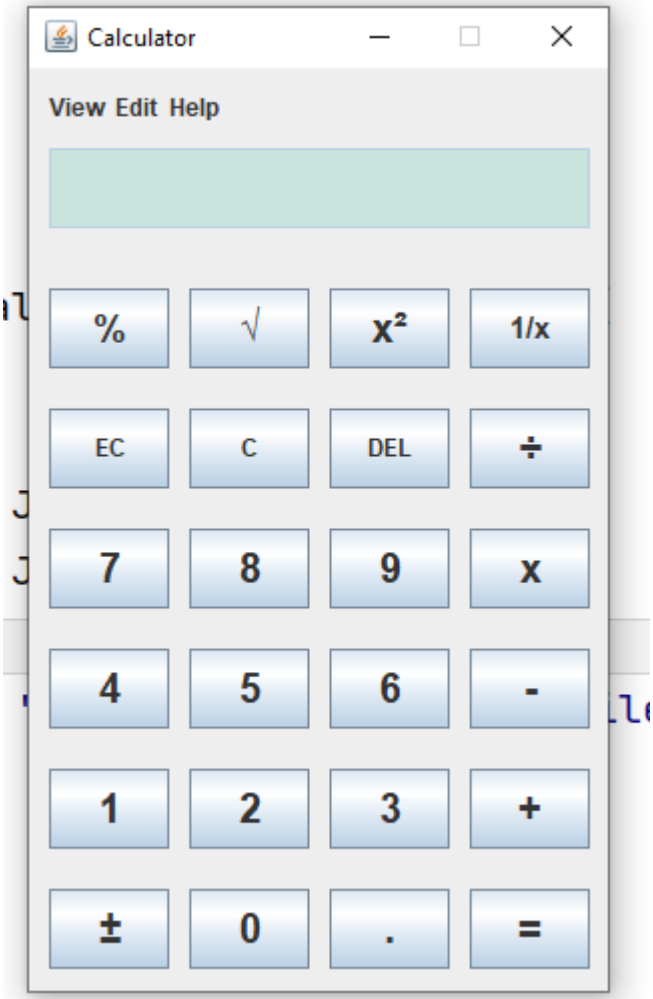

Figure : Simple Calculator.

Code:

```
import javax.swing.*;
import java.awt.*;
public class calculator {


   public static class Calculator extends JFrame {



      JLabel view = new JLabel("View");
      JLabel edit = new JLabel("Edit");
      JLabel help = new JLabel("Help");

      JTextField textField = new JTextField();
      JButton buttonZero = new JButton("0");
      JButton buttonOne = new JButton("1");
      JButton buttonTwo = new JButton("2");
      JButton buttonThree = new JButton("3");
      JButton buttonFour = new JButton("4");
      JButton buttonFive = new JButton("5");
      JButton buttonSix = new JButton("6");
      JButton buttonSeven = new JButton("7");
      JButton buttonEight = new JButton("8");
      JButton buttonNine = new JButton("9");
      JButton buttonDot = new JButton(".");
      JButton buttonEClear = new JButton("EC");
      JButton buttonClear = new JButton("C");
      JButton buttonDelete = new JButton("DEL");
      JButton buttonEqual = new JButton("=");
      JButton buttonMul = new JButton("x");
      JButton buttonDiv = new JButton("\u00F7");
      JButton buttonPlus = new JButton("+");
      JButton buttonMinus = new JButton("-");
      JButton buttonSquare = new JButton("x\u00B2");
      JButton buttonReciprocal = new JButton("1/x");
      JButton buttonSqrt = new JButton("\u221A");
      JButton plusMinus =new JButton("\u00B1");
      JButton percentSing = new JButton("\u0025");

      Calculator() {
         createGui();
         addComponents();
      }
      public void createGui() {

         //Setting properties of JFrame(Window)
         // frame = new JFrame();
         setTitle("Calculator");
         setSize(305, 500);
         getContentPane().setLayout(null);
         setResizable(false);
         setLocationRelativeTo(null);
         setVisible(true);
         setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
      }
      public void addComponents() {
```

```
        view.setBounds(10,10,40,20);
        view.setFont(new Font("Arial", Font.BOLD, 12));
        add(view);

        edit.setBounds(43,10,40,20);
        edit.setFont(new Font("Arial", Font.BOLD, 12));
        add(edit);

        help.setBounds(70,10,40,20);
        help.setFont(new Font("Arial", Font.BOLD, 12));
        add(help);



        textField.setBounds(10, 40, 270, 40);
        textField.setFont(new Font("Arial", Font.BOLD, 20));
        textField.setBackground(new Color(200, 228, 220));
        textField.setEditable(false);
        textField.setHorizontalAlignment(SwingConstants.RIGHT);
        add(textField);
    //   button 0
        buttonZero.setBounds(80, 410, 60, 40);
        buttonZero.setFont(new Font("Arial", Font.BOLD, 20));

        add(buttonZero);
        // button 1
        buttonOne.setBounds(10, 350, 60, 40);
        buttonOne.setFont(new Font("Arial", Font.BOLD, 20));

        add(buttonOne);
        //button 2
        buttonTwo.setBounds(80, 350, 60, 40);
        buttonTwo.setFont(new Font("Arial", Font.BOLD, 20));

        add(buttonTwo);
        // button 3
        buttonThree.setBounds(150, 350, 60, 40);
        buttonThree.setFont(new Font("Arial", Font.BOLD, 20));

        add(buttonThree);
        // button 4
        buttonFour.setBounds(10, 290, 60, 40);
        buttonFour.setFont(new Font("Arial", Font.BOLD, 20));

        add(buttonFour);
        //button 5
        buttonFive.setBounds(80, 290, 60, 40);
        buttonFive.setFont(new Font("Arial", Font.BOLD, 20));

        add(buttonFive);
        //button 6
        buttonSix.setBounds(150, 290, 60, 40);
        buttonSix.setFont(new Font("Arial", Font.BOLD, 20));

        add(buttonSix);
        //button 7
        buttonSeven.setBounds(10, 230, 60, 40);
        buttonSeven.setFont(new Font("Arial", Font.BOLD, 20));

        add(buttonSeven);
        //button 8
```

```
buttonEight.setBounds(80, 230, 60, 40);
buttonEight.setFont(new Font("Arial", Font.BOLD, 20));

add(buttonEight);
//button 9
buttonNine.setBounds(150, 230, 60, 40);
buttonNine.setFont(new Font("Arial", Font.BOLD, 20));

add(buttonNine);
//dot button
buttonDot.setBounds(150, 410, 60, 40);
buttonDot.setFont(new Font("Arial", Font.BOLD, 20));

add(buttonDot);
//button plusMinus
plusMinus.setBounds(10, 410, 60, 40);
plusMinus.setFont(new Font("Arial", Font.BOLD, 20));

add(plusMinus);
//button equal
buttonEqual.setBounds(220, 410, 60, 40);
buttonEqual.setFont(new Font("Arial", Font.BOLD, 20));

add(buttonEqual);
//button /
buttonDiv.setBounds(220, 170, 60, 40);
buttonDiv.setFont(new Font("Arial", Font.BOLD, 20));

add(buttonDiv);
// button percentSing
percentSing.setBounds(10, 110, 60, 40);
percentSing.setFont(new Font("Arial", Font.BOLD, 18));

add(percentSing);
// button square root
buttonSqrt.setBounds(80, 110, 60, 40);
buttonSqrt.setFont(new Font("Arial", Font.BOLD, 18));

add(buttonSqrt);
//button *
buttonMul.setBounds(220, 230, 60, 40);
buttonMul.setFont(new Font("Arial", Font.BOLD, 20));

add(buttonMul);
// button -
buttonMinus.setBounds(220, 290, 60, 40);
buttonMinus.setFont(new Font("Arial", Font.BOLD, 20));

add(buttonMinus);
// button +
buttonPlus.setBounds(220, 350, 60, 40);
buttonPlus.setFont(new Font("Arial", Font.BOLD, 20));

add(buttonPlus);
//button square
buttonSquare.setBounds(150, 110, 60, 40);
buttonSquare.setFont(new Font("Arial", Font.BOLD, 20));

add(buttonSquare);
//reciprocal button
buttonReciprocal.setBounds(220, 110, 60, 40);
```

```
        buttonReciprocal.setFont(new Font("Arial", Font.BOLD, 15));

        add(buttonReciprocal);
        // delete button
        buttonDelete.setBounds(150, 170, 60, 40);
        buttonDelete.setFont(new Font("Arial", Font.BOLD, 12));

        add(buttonDelete);
        //EC button
        buttonEClear.setBounds(10, 170, 60, 40);
        buttonEClear.setFont(new Font("Arial", Font.BOLD, 12));

        add(buttonEClear);
        //clear button
        buttonClear.setBounds(80, 170, 60, 40);
        buttonClear.setFont(new Font("Arial", Font.BOLD, 12));

        add(buttonClear);

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

Task-02

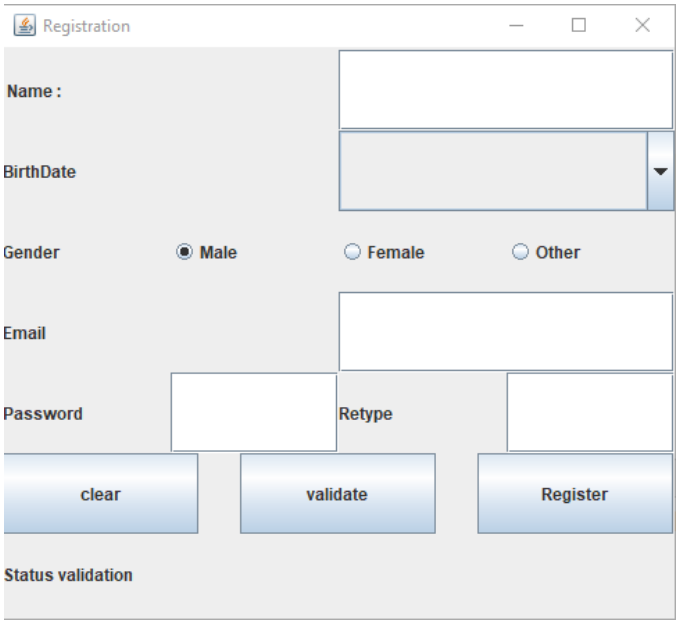

Figure: Registration

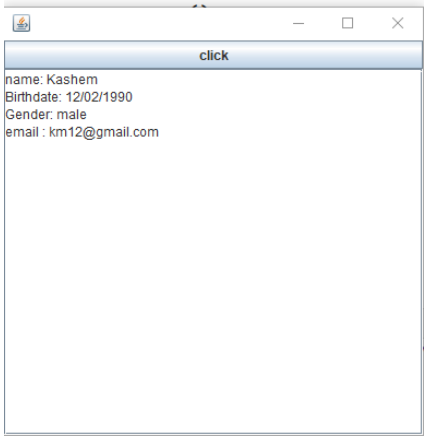

Figure: Massage box

Code:

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Date;
import java.text.DateFormat;
import java.util.Calendar;

public class mframe extends JFrame implements ActionListener {
   public String s1,s2,s3,s4;


    public void actionPerformed(ActionEvent e){

    this.s1 = nameField.getText();
    this.s2= emailField.getText();
    this.s3=passField.getSelectedText();
    this.s4 =retypeField.getSelectedText();




        if(e.getSource()== register)
        {
            System.out.println("hello");
            this.dispose();
            new registrationMsgBox().setVisible(true);
        }
        else if(e.getSource()== clear)
        {
            nameField.setText("");
            emailField.setText("");
            passField.setText("");
            retypeField.setText("");

        }
        else if (e.getSource()== validate)
        {
            if(passField.equals(retypeField))
            {
                System.out.println("matched");
            }
            System.out.println("matched");
        }
    }

    private JLabel name = new JLabel(" Name :");
    private JTextField nameField =new JTextField();


    private JLabel Birthdate = new JLabel("BirthDate");
    private JComboBox bdbox = new JComboBox();



//    private String months[]
//            = { "Jan", "feb", "Mar", "Apr",
//            "May", "Jun", "July", "Aug",
```

```
//             "Sup", "Oct", "Nov", "Dec" };
//
//    JComboBox month = new JComboBox(months);
//
//    private String day []= {"1","2"};


    private JLabel Gender = new JLabel("Gender");
    private JRadioButton male = new JRadioButton("Male");
    private JRadioButton female = new JRadioButton("Female");
    private JRadioButton other = new JRadioButton("Other");

    private JLabel email = new JLabel("Email");
    private JTextField emailField= new JTextField();

    private JLabel password = new JLabel("Password");
    private JPasswordField passField = new JPasswordField();
    private JLabel retype = new JLabel("Retype");
    private JPasswordField retypeField = new JPasswordField();

    private JButton clear = new JButton("clear");
    private JButton validate = new JButton("validate");
    private JButton register = new JButton("Register");

    private JLabel status = new JLabel("Status validation");



    public mframe(){
        // Title & Size
        super("Registration");
        setSize(500,450);
        // Container devided by 7
        Container c= getContentPane();
        c.setLayout(new GridLayout(7,1));
        // first grid
        JPanel fpart = new JPanel();
        fpart.setLayout(new GridLayout(1,2));
        fpart.add(name);
        fpart.add(nameField);

        c.add(fpart);
        // 2nd grid
        JPanel spart = new JPanel();
        spart.setLayout(new GridLayout(1,2));
        spart.add(Birthdate);
        spart.add(bdbox);



        c.add(spart);

        //3rd grid
        JPanel tpart = new JPanel();
        tpart.setLayout(new GridLayout(1,4));
        tpart.add(Gender);
        tpart.add(male);
        tpart.add(female);
        tpart.add(other);

        ButtonGroup bg = new ButtonGroup();
        bg.add(male);
```

```
        bg.add(female);
        bg.add(other);

        c.add(tpart);

        // fourth grid
        JPanel fourthPart = new JPanel();
        fourthPart.setLayout(new GridLayout(1,2));
        fourthPart.add(email);
        fourthPart.add(emailField);
        c.add(fourthPart);

        //fifth grid
        JPanel fifthPart = new JPanel();
        fifthPart.setLayout(new GridLayout(1,4));
        fifthPart.add(password);
        fifthPart.add(passField);
        fifthPart.add(retypeField);
        fifthPart.add(retype);
        fifthPart.add(retypeField);
        c.add(fifthPart);


        //6th grid
        JPanel sixthPart = new JPanel();
        GridLayout h= new GridLayout(1,3);
        sixthPart.setLayout(h);
        h.setHgap(30);
        sixthPart.add(clear);
        sixthPart.add(validate);
        sixthPart.add(register);

        c.add(sixthPart);

        // Action for click
        register.addActionListener(this);
        clear.addActionListener(this);
        validate.addActionListener(this);







        //7th grid
        JPanel seventhPart = new JPanel();
        seventhPart.setLayout(new GridLayout(1,1));

        seventhPart.add(status);
        c.add(seventhPart);


        setDefaultCloseOperation(EXIT_ON_CLOSE);
        setVisible(true);
    }
    public static void main(String[] args) {

        mframe h = new mframe();
    }
}
```

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

public class registrationMsgBox extends JFrame implements ActionListener{

    public void actionPerformed(ActionEvent e){



        if(e.getSource()== click)
        {
            System.out.println("hello");



            //textArea.setText();
           // textArea.setText();
        }
//        else if(e.getSource()== clear)
//        {
//            // clear code
//            System.out.println("cls");
//        }
//        else if (e.getSource()== validate)
//        {
//            //validate code
//
//        }


    }


    public  registrationMsgBox(){

        setSize(400,400);

        Container c= getContentPane();
        c.setLayout(new BorderLayout());
        c.add(click,BorderLayout.NORTH);
        c.add(scrl,BorderLayout.CENTER);


        // Action for click
        click.addActionListener(this);

        setDefaultCloseOperation(EXIT_ON_CLOSE);
        setVisible(true);
    }

    private JButton click = new JButton("click");
    private JTextArea textArea = new JTextArea("");

    private JScrollPane scrl = new JScrollPane(textArea);

    public static void main(String[] args) {

        registrationMsgBox h = new registrationMsgBox();

    }
```

```
}
```