

## **USER INTERFACE FOR WELCOME PAGE**

### **AIM:**

To design a user interface for a Welcome Page.

### **PROGRAM:**

```
public class Welcome extends javax.swing.JFrame {

    public Welcome() {
        initComponents();
    }

    @SuppressWarnings("unchecked")
    private void jTextField1KeyTyped(java.awt.event.KeyEvent evt) {
        char c = evt.getKeyChar();
        if(!Character.isDigit(c)){
            jTextField2.setEditable(false);
            JOptionPane.showMessageDialog(null,"Number only");
        }
        else{
            jTextField2.setEditable(true);
        }
    }

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        s_name=jTextField2.getText();
        s_dep=jTextField3.getText();
        jTextField4.setText("\t Welcome "+s_name+" of "+s_dep);
    }
}
```

```

    }

    public static void main(String args[]) {

        java.awt.EventQueue.invokeLater(new Runnable()
        { public void run() {
            new Welcome().setVisible(true);
        }
        }

        String s_name,s_dep;
        private javax.swing.JButton jButton1;
        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.JTextField jTextField1;
        private javax.swing.JTextField jTextField2;
        private javax.swing.JTextField jTextField3;
        private javax.swing.JTextField jTextField4;
        private keeptoo.KGradientPanel
        kGradientPanel1;

```

## **OUTPUT:**



The screenshot shows a web application window with a dark blue header and a purple gradient background. The header contains the text "RAJALAKSHMI ENGINEERING COLLEGE" in white, bold, uppercase letters, followed by "AN AUTONOMOUS INSTITUTION" in a smaller, white, uppercase font. Below the header, there are three input fields for user registration: "ENTER NAME", "ENTER ROLL NO.", and "ENTER DEPARTMENT". Each input field is a white rectangle. Below the input fields is a "SUBMIT" button, which is a white rectangle with a dark blue border and the word "SUBMIT" in dark blue, uppercase letters. The window has a standard Windows-style title bar with minimize, maximize, and close buttons.

RAJALAKSHMI ENGINEERING COLLEGE

AN AUTONOMOUS INSTITUTION

ENTER NAME

ENTER ROLL NO.

ENTER DEPARTMENT

SUBMIT

## **RESULT:**

Therefore the user interface has been created successfully.

**Expt NO:02**

## **USER INTERFACE BY APPLYING DESIGN RULES FOR ASSIGNING A GRADE TO STUDENTS BASED ON THEIR SUBJECT MARKS**

### **AIM:**

To design a user interface by applying design rules for assigning a grade to students based on their subject marks.

### **PROGRAM:**

```
public class grade extends javax.swing.JFrame { public grade() {  
    initComponents();  
}  
@SuppressWarnings("unchecked")  
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) { int s_id =  
    Integer.parseInt(jTextField1.getText());  
    double java = Double.parseDouble( jTextField2.getText()); double hci =  
    Double.parseDouble(jTextField3.getText()); double maths =  
    Double.parseDouble(jTextField4.getText()); double lifescience =  
    Double.parseDouble(jTextField5.getText()); String grade1 = null;  
    if(java>90){  
        grade1 = "A";  
    }  
    else if((java>85)&&(java<90)){  
        grade1 = "B";  
    }  
    else if((java>80)&&(java<85)){
```

```
        grade1 = "C";
    }
    else if((java>70)&&(java<80)){ grade1 = "D";
    }
    else if((java>60)&&(java<70)){ grade1 = "E";
    }
    else{
        grade1 = "F";
    }
    jTextField6.setText("
    "+grade1); String grade2 = null;
    if(hci>90){
        grade2 = "A";
    }
    else if((hci>85)&&(hci<90)){
        grade2 = "B";
    }
    else if((hci>80)&&(hci<85)){
        grade2 = "C";
    }
    else if((hci>70)&&(hci<80)){
        grade2 = "D";
    }
    else if((hci>60)&&(hci<70)){
        grade2 = "E";
    }
}
```

```
else{
    grade2 = "F";
}
jTextField7.setText(" "+grade2);
String grade3 = null;
if(maths>90){
    grade3 = "A";
}
else if((maths>85)&&(maths<90)){ grade3 = "B";
}
else if((maths>80)&&(maths<85)){
    grade3 = "C";
}
else if((maths>70)&&(maths<80)){
    grade3 = "D";
}
else if((maths>60)&&(maths<70)){
    grade3 = "E";
}
else{
    grade3 = "F";
}
jTextField8.setText(" "+grade3);
String grade4 = null;
if(lifescience>90){
    grade4 = "A";
}
```

```

        else if((lifesience>85)&&(lifesience<90)){ grade4 = "B";
        }
        else if((lifesience>80)&&(lifesience<85)){ grade4 = "C";
        }
        else if((lifesience>70)&&(lifesience<80)){ grade4 = "D";
        }
        else if((lifesience>60)&&(lifesience<70)){
            grade4 = "E";
        }
        else{
            grade4 = "F";
        }
        jTextField9.setText(" "+grade4);
    }

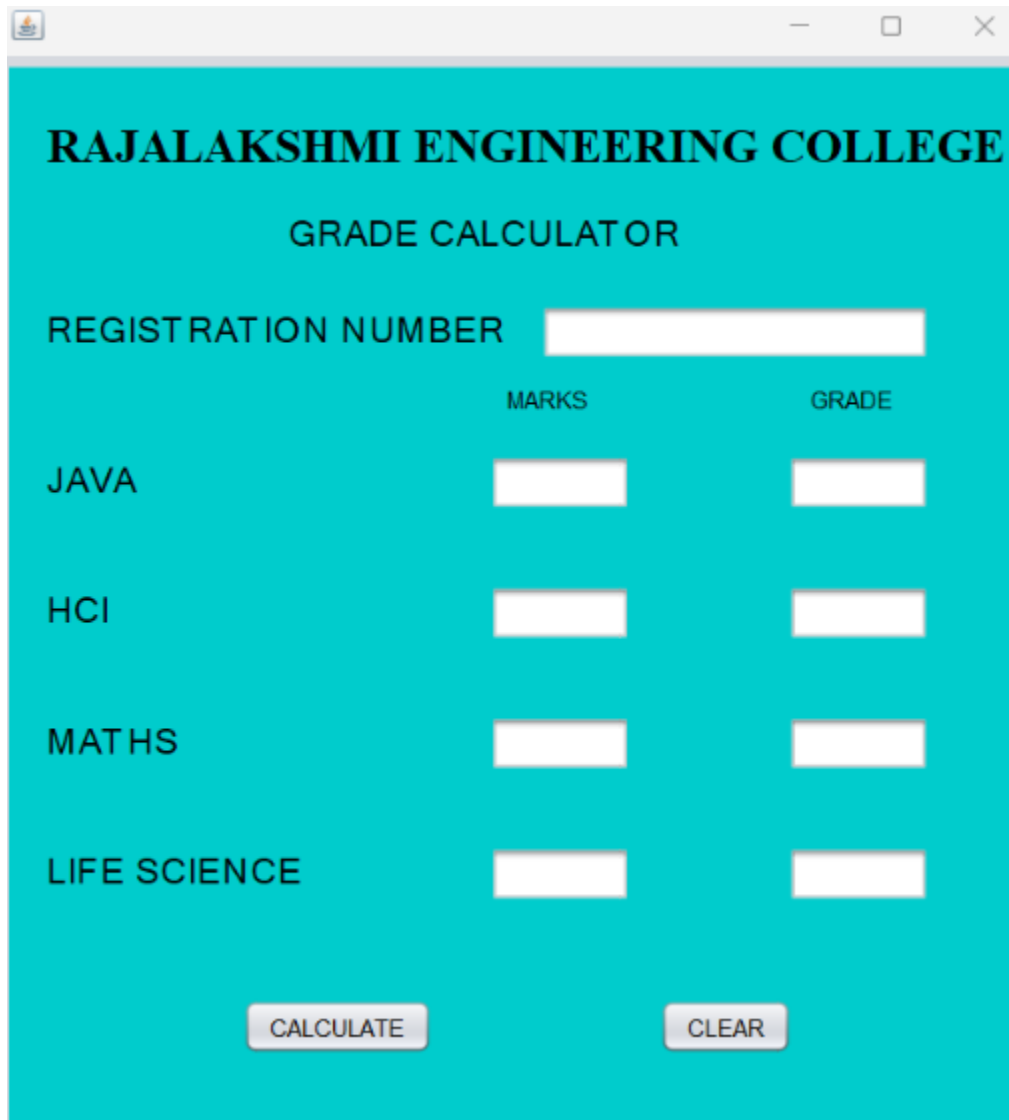
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    jTextField1.setText("");
    jTextField2.setText("");
    jTextField3.setText("");
    jTextField4.setText("");
    jTextField5.setText("");
    jTextField6.setText("");
    jTextField7.setText("");
    jTextField8.setText("");
    jTextField9.setText("");
}

```

```
public static void main(String args[]) {  
    java.awt.EventQueue.invokeLater(() ->  
    {  
new grade().setVisible(true);  
    });  
    private javax.swing.JButton jButton1;  
    private javax.swing.JButton jButton2;  
    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.JLabel jLabel9;  
    private javax.swing.JPanel jPanel1;  
    private javax.swing.JPanel jPanel2;  
    private javax.swing.JTextField jTextField1;  
    private javax.swing.JTextField jTextField2;  
    private javax.swing.JTextField jTextField3;  
    private javax.swing.JTextField jTextField4;  
    private javax.swing.JTextField jTextField5;  
    private javax.swing.JTextField jTextField6;  
    private javax.swing.JTextField jTextField7;  
    private javax.swing.JTextField jTextField8;  
    private javax.swing.JTextField jTextField9; }  
}
```



## OUTPUT :



**RAJALAKSHMI ENGINEERING COLLEGE**

**GRADE CALCULATOR**

REGISTRATION NUMBER

	MARKS	GRADE
JAVA	<input type="text"/>	<input type="text"/>
HCI	<input type="text"/>	<input type="text"/>
MATHS	<input type="text"/>	<input type="text"/>
LIFE SCIENCE	<input type="text"/>	<input type="text"/>

## RESULT:

A user interface by applying design rules for assigning a grade to students based on the subject marks was successfully designed and implemented.

Expt NO:03

**USER INTERFACE WITH LAYOUTS FOR PRINTING THE NUMBERS IN**

## **ASCENDING ORDER AND DESCENDING ORDER**

### **AIM:**

To design a user interface with layouts for printing the numbers in ascending order and descending order.

### **PROGRAM:**

```
import java.util.ArrayList;
import java.util.Arrays;
import java.util.Collections;
import java.util.Comparator;

public class sortdesign extends javax.swing.JFrame { public sortdesign() {
    initComponents();
}
@SuppressWarnings("unchecked")
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    String arr[]=jTextArea1.getText().split(" ");
    int[] numbers=new int[arr.length];
    for (int i=0;i<numbers.length;i++){
        numbers[i]=Integer.parseInt(arr[i]);
    }
    for(int i=0;i<numbers.length;i++){
        for(int j=0;j<numbers.length-1;j++){
            if(numbers[j]>numbers[j+1]){
```

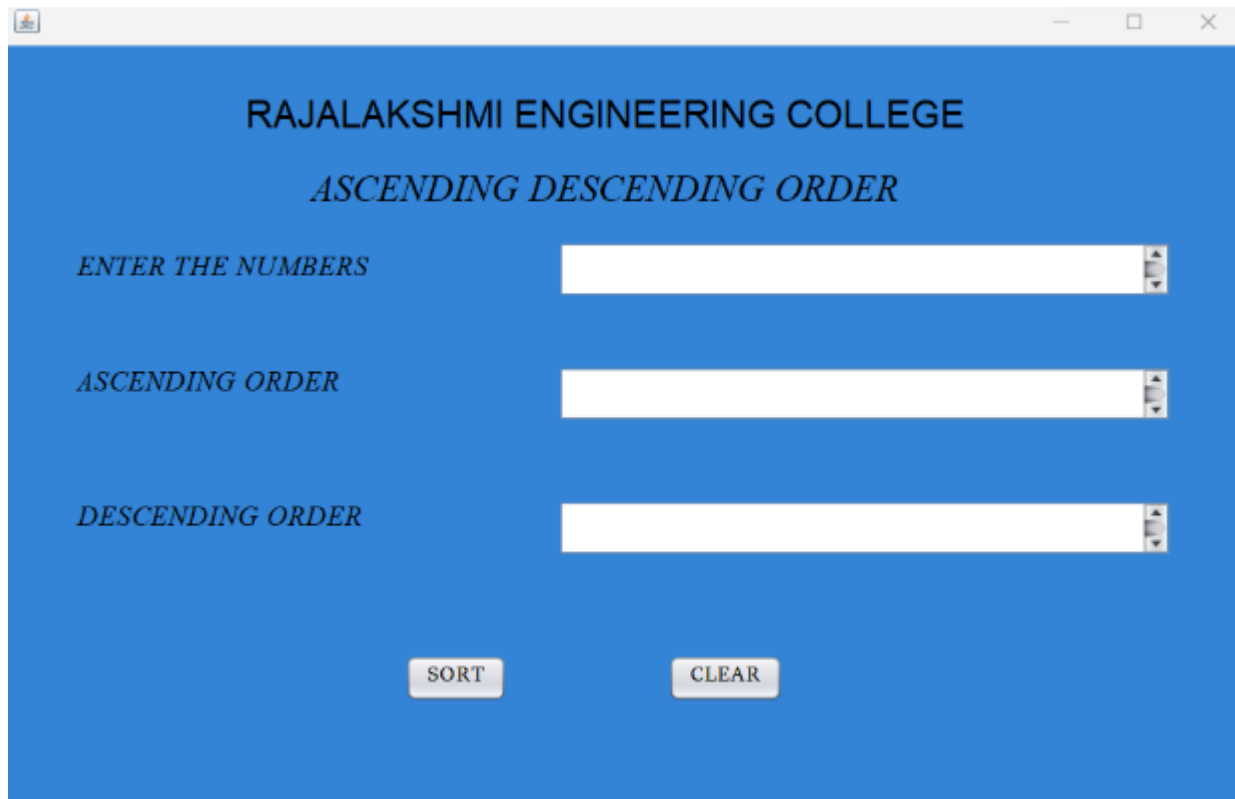
```
        int temp;
        temp = numbers[j];
        numbers[j]=numbers[j+1];
        numbers[j+1]=temp;
    }
}
```

```
for(int k=0;k<numbers.length;k++){
    jTextArea3.append(numbers[k]+" ");
}
```

```
private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    jTextArea3.setText("");
}
```

```
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JScrollPane jScrollPane2;
private javax.swing.JScrollPane jScrollPane3;
private javax.swing.JTextArea jTextArea1;
private javax.swing.JTextArea jTextArea2;
private javax.swing.JTextArea jTextArea3;
```

### **OUTPUT:**



The screenshot shows a Java Swing window with a blue background. At the top, the text "RAJALAKSHMI ENGINEERING COLLEGE" is displayed in a bold, black, sans-serif font. Below this, the text "ASCENDING DESCENDING ORDER" is displayed in a smaller, italicized, black, sans-serif font. There are three input fields, each preceded by a label in italicized, black, sans-serif font: "ENTER THE NUMBERS", "ASCENDING ORDER", and "DESCENDING ORDER". Each input field is a white rectangle with a small vertical scrollbar on the right side. At the bottom of the window, there are two buttons: "SORT" and "CLEAR", both in a black, sans-serif font. The window has a standard title bar with a minimize button, a maximize button, and a close button.

### **RESULT:**

Thus the user interface for printing the numbers in ascending order and descending order has been successfully created and executed.

Expt NO 04

## **USER INTERFACE BY USING TASK ANALYSIS FOR CALCULATOR**

### **AIM:**

To design a user interface by using task analysis for calculator.

### **PROGRAM:**

```
public class calculator extends javax.swing.JFrame{

    public calculator() {

        initComponents();

    }

    private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {

        // TODO add your handling code here:

    }

    private void jb1ActionPerformed(java.awt.event.ActionEvent evt) {

        String number=jTextField1.getText()+jb1.getText();

        jTextField1.setText(number);

        // TODO add your handling code here:

    }

    private void jb2ActionPerformed(java.awt.event.ActionEvent evt) {

        // TODO add your handling code here:
```

```
String number=jTextField1.getText()+jb2.getText();
```

```
    jTextField1.setText(number);
```

```
}
```

```
private void jb3ActionPerformed(java.awt.event.ActionEvent evt) {
```

```
    // TODO add your handling code here:
```

```
    String number=jTextField1.getText()+jb3.getText();
```

```
    jTextField1.setText(number);
```

```
}
```

```
private void jb4ActionPerformed(java.awt.event.ActionEvent evt) {
```

```
    // TODO add your handling code here:
```

```
    String number=jTextField1.getText()+jb4.getText();
```

```
    jTextField1.setText(number);
```

```
}
```

```
private void jb5ActionPerformed(java.awt.event.ActionEvent evt) {
```

```
    // TODO add your handling code here:
```

```
    String number=jTextField1.getText()+jb5.getText();
```

```
    jTextField1.setText(number);
```

```
}
```

```
private void jb6ActionPerformed(java.awt.event.ActionEvent evt) {
```

```
// TODO add your handling code here:

String number=jTextField1.getText()+jb6.getText();

jTextField1.setText(number);
}


private void jb8ActionPerformed(java.awt.event.ActionEvent evt) {

    // TODO add your handling code here:

    String number=jTextField1.getText()+jb8.getText();

    jTextField1.setText(number);
}


private void jb9ActionPerformed(java.awt.event.ActionEvent evt) {

    // TODO add your handling code here:

    String number=jTextField1.getText()+jb9.getText();

    jTextField1.setText(number);
}


private void jb0ActionPerformed(java.awt.event.ActionEvent evt) {

    // TODO add your handling code here:

    String number=jTextField1.getText()+jb0.getText();

    jTextField1.setText(number);
}
```

```
private void jb00ActionPerformed(java.awt.event.ActionEvent evt) {  
  
    // TODO add your handling code here:  
  
    String answer;  
  
    second=Double.parseDouble(jTextField1.getText());  
  
    if(operation==""){  
  
        result=first+second;  
  
        answer=String.format("%.2f",result );  
  
        jTextField1.setText(answer);  
  
    }  
  
    else if(operation=="-"){  
  
        result=first-second;  
  
        answer=String.format("%.2f",result );  
  
        jTextField1.setText(answer);  
  
    }  
  
    else if(operation=="x"){  
  
        result=first*second;  
  
        answer=String.format("%.2f",result );  
  
        jTextField1.setText(answer);  
  
    }  
  
    else if(operation=="/"){  
  
        result=first/second;  
  
        answer=String.format("%.2f",result );  
  
        jTextField1.setText(answer);  
  
    }  
  
}
```



```
    }  
}
```

```
private void jbcActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
    jTextField1.setText("");  
}
```

```
private void jbsumActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
    first =  
    Double.parseDouble(jTextField1.getText());  
    jTextField1.setText("");  
    operation="+";  
  
}
```

```
private void jbdifActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
    first = Double.parseDouble(jTextField1.getText());  
    jTextField1.setText("");  
    operation="-";  
  
}
```

```
private void jbmultipActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
  
    first =  
  
    Double.parseDouble(jTextField1.getText());  
  
    jTextField1.setText("");  
  
    operation="x";  
}
```

```
private void jbdivActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
  
    first =  
  
    Double.parseDouble(jTextField1.getText());  
  
    jTextField1.setText("");  
  
    operation="/";  
}
```

```
private void jb7ActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
  
    String number=jTextField1.getText()+jb7.getText();  
  
    jTextField1.setText(number);  
}
```

```
public static void main(String args[]) {  
  
    double first;  
  
    double second;  
  
    double result;
```

String operation;

String answer;

// Variables declaration

private javax.swing.JPanel jPanel1;

private javax.swing.JTextField

jTextField1; private javax.swing.JButton

jb0;

private javax.swing.JButton jb00;

private javax.swing.JButton jb1;

private javax.swing.JButton jb2;

private javax.swing.JButton jb3;

private javax.swing.JButton jb4;

private javax.swing.JButton jb5;

private javax.swing.JButton jb6;

private javax.swing.JButton jb7;

private javax.swing.JButton jb8;

private javax.swing.JButton jb9;

private javax.swing.JButton jbc;

private javax.swing.JButton jbdif;

private javax.swing.JButton jbdiv;

private javax.swing.JButton jbmul;

private javax.swing.JButton jbsum;

## **OUTPUT:**



## **RESULT:**

Thus the user interface by using task analysis for calculator has been created successfully.

Expt NO:05

## **USER INTERFACE WITH DIRECT SELECTION OF REGISTRATION OF STUDENT**

### **AIM:**

To design an user interface with direct selection for registration of a student.

### **FIGMA FILE LINK:**

<https://www.figma.com/design/HOK5zLMhoB2UHBfB7VKzkl/expt-5?node-id=0-1&t=v3y7oa7flf3ppz7A-1>

### **OUTPUT:**



Personal information

First name *	Last name *
<input type="text"/>	<input type="text"/>
Parent's name *	Gender *
<input type="text"/>	<input type="text"/>
Email *	Phone no *
<input type="text"/>	<input type="text"/>

Academic Details

X marks *	XII marks *
<input type="text"/>	<input type="text"/>
Course *	<input type="text"/>
Other preferences	<input type="text"/>

### **RESULT:**

Thus the user interface with direct selection for registration of a student for admission has been created successfully.

**Expt NO:06**

## **USER INTERFACE FOR PHOTO COLOR**

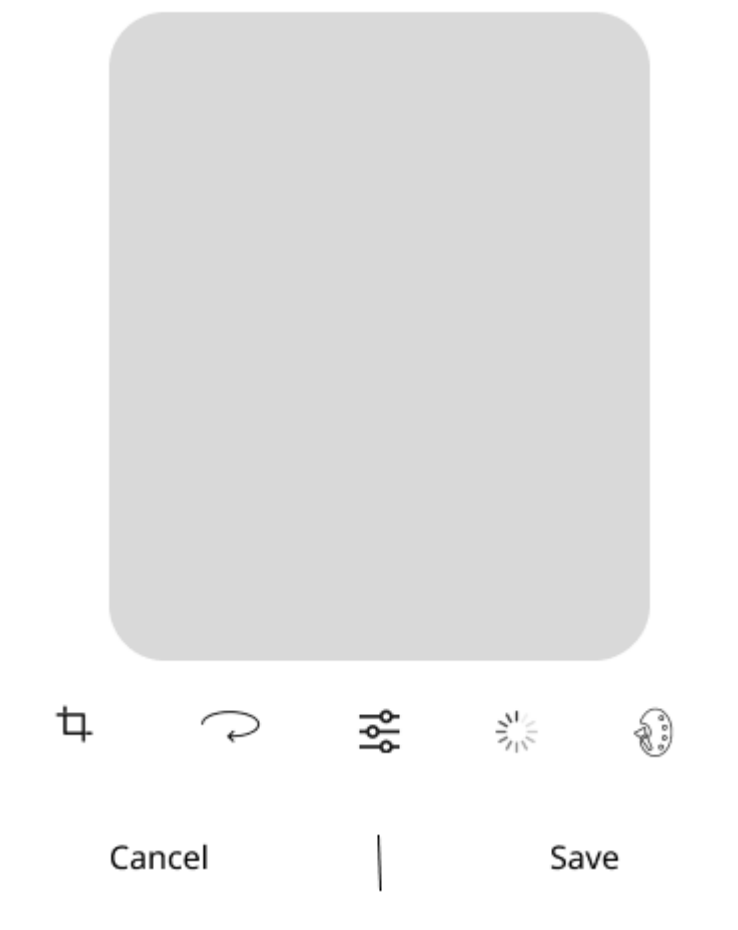
### **AIM:**

To design a user interface by using colours for displaying and changing of picture on the form.

### **FIGMA FILE LINK:**

<https://www.figma.com/design/YrUrdXWlt1hl2kYbqYnskl/expt-06?node-id=0-1&t=CP7PPpFL8p5LII2I-1>

### **OUTPUT:**



### **RESULT:**

The user interface by using colours for displaying and changing of picture on the form has been created successfully.

**Expt NO: 07**

## **USER INTERFACE WITH WIDGETS FOR END SEMESTER EXAMINATION REGISTRATIONS**

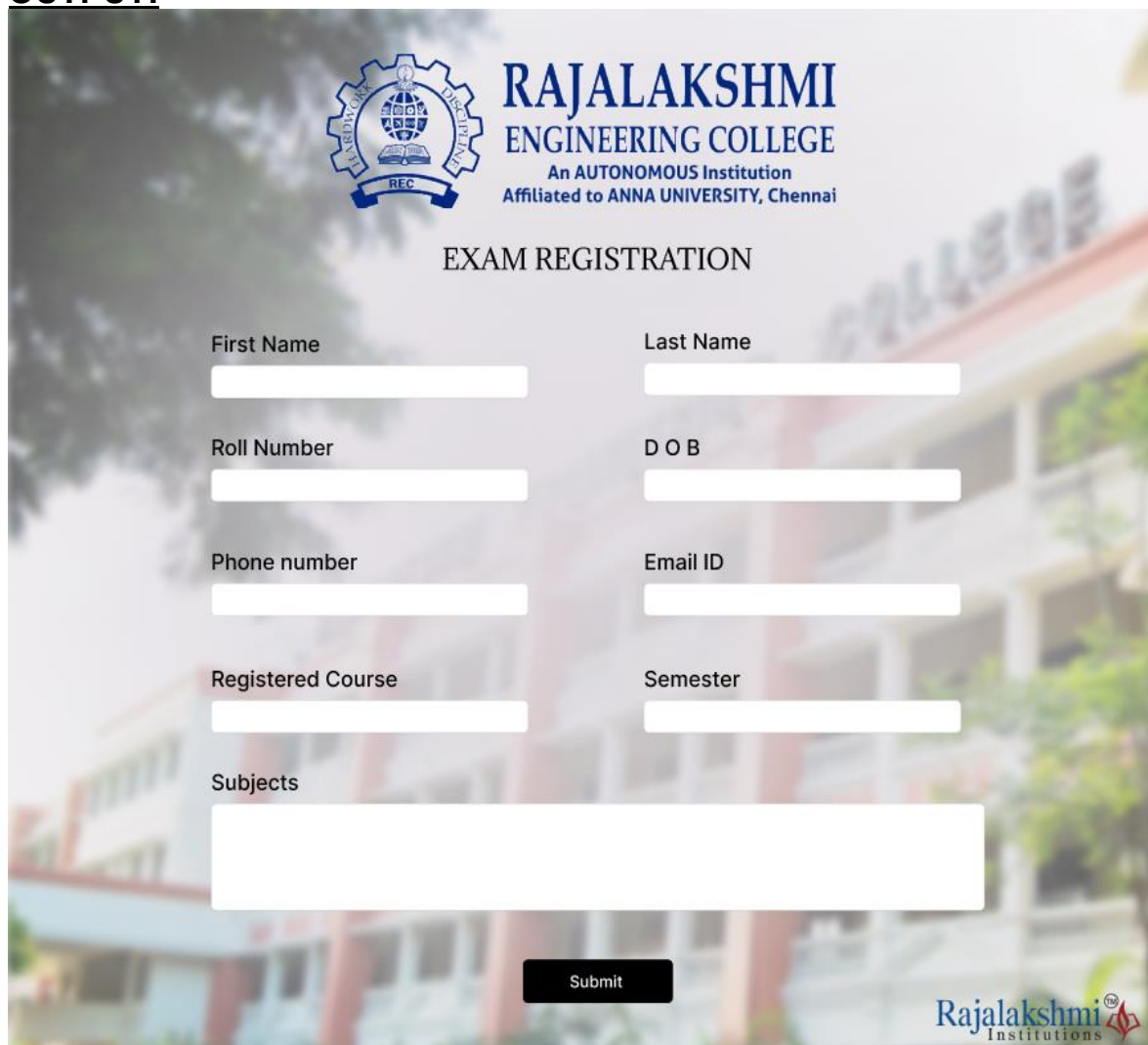
### **AIM:**

To design an user interface with widgets for end semester examination registrations.

### **FIGMA FILE LINK:**

<https://www.figma.com/design/lxj63M3aAPJyoHliyKdgnb/expt-07?t=CP7PPpFL8p5LIi2l-1>

### **OUTPUT:**



The screenshot displays the 'EXAM REGISTRATION' form for Rajalakshmi Engineering College. The form is set against a background image of the college building. At the top left is the college's logo, a gear with a book inside, and the text 'RAJALAKSHMI ENGINEERING COLLEGE', 'An AUTONOMOUS Institution', and 'Affiliated to ANNA UNIVERSITY, Chennai'. The title 'EXAM REGISTRATION' is centered. The form contains several input fields: 'First Name', 'Last Name', 'Roll Number', 'DOB', 'Phone number', 'Email ID', 'Registered Course', 'Semester', and a larger 'Subjects' field. A 'Submit' button is located at the bottom center. The Rajalakshmi Institutions logo is in the bottom right corner.

First Name	Last Name
<input type="text"/>	<input type="text"/>
Roll Number	DOB
<input type="text"/>	<input type="text"/>
Phone number	Email ID
<input type="text"/>	<input type="text"/>
Registered Course	Semester
<input type="text"/>	<input type="text"/>
Subjects	
<input type="text"/>	
<input type="button" value="Submit"/>	

### **RESULT:**

Thus the user interface with widgets for end semester examination registration of a student has been created successfully.

**Expt NO: 08**

## **USER INTERFACE BY USING DRAG AND DROP FOR CREATING FORMS**

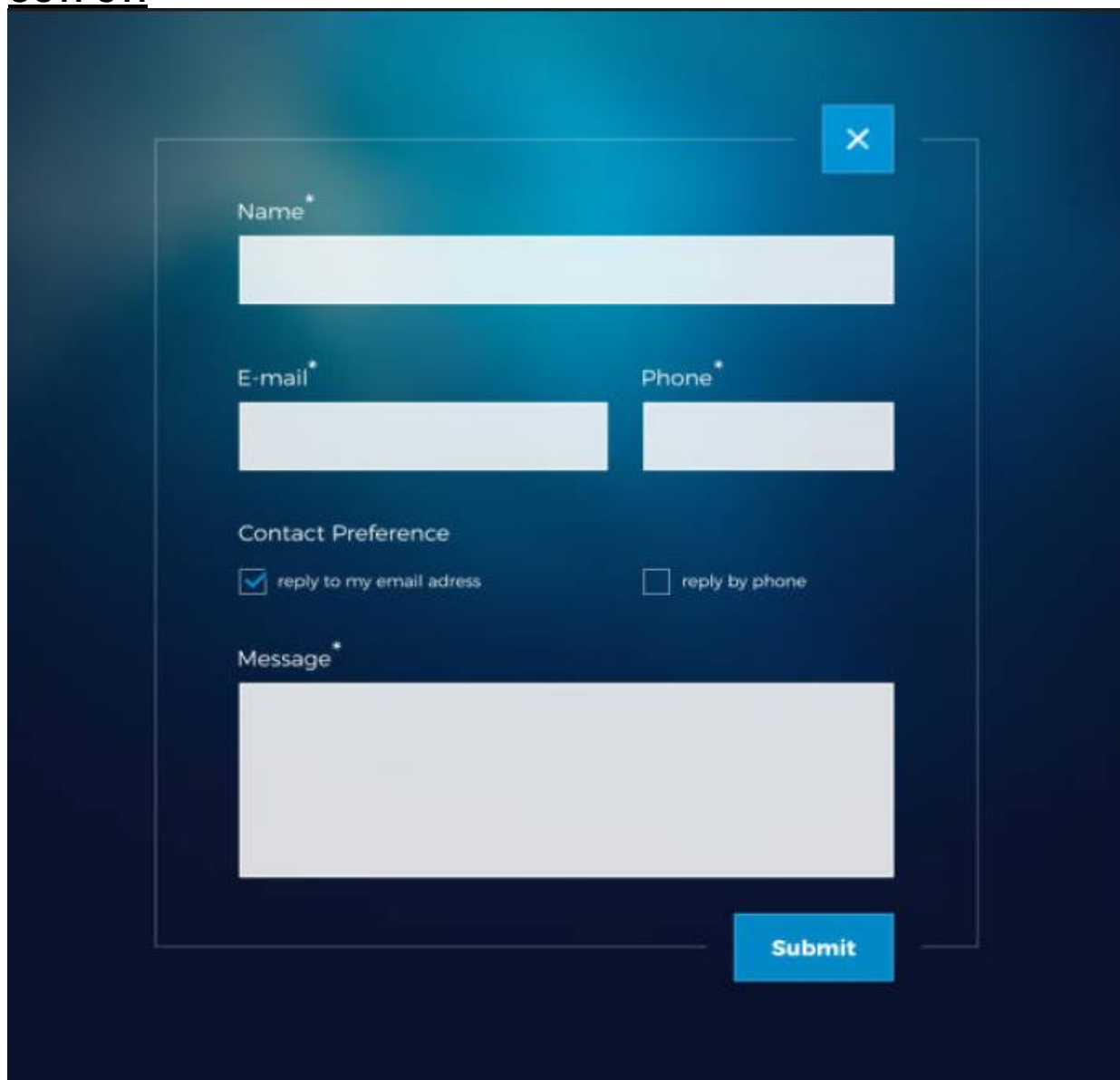
**AIM:**

To design a user interface with overlays and inlays for menu-based programs.

**FIGMA FILE LINK:**

<https://www.figma.com/design/7qGT3lwp6DXjVGiJDLz8NB/expt-08?t=oKlVb0keM2vgxPtH-1>

**OUTPUT:**



The image shows a user interface design for a contact form, presented as a modal window on a dark blue background. The form itself has a light blue border and a close button (X) in the top right corner. The form contains the following elements:

- Name\***: A single-line text input field.
- E-mail\***: A single-line text input field.
- Phone\***: A single-line text input field.
- Contact Preference**: A section with two checkboxes:
  - ☒ reply to my email adress
  - ☐ reply by phone
- Message\***: A multi-line text area.
- Submit**: A blue button with white text located at the bottom right of the form.

**RESULT:**

To design a user interface by using drag and drop for creating forms was completed successfully.



**Expt NO: 09**

## **USER INTERFACE WITH OVERLAY AND INLAY FOR MENU BASED PROGRAMS**

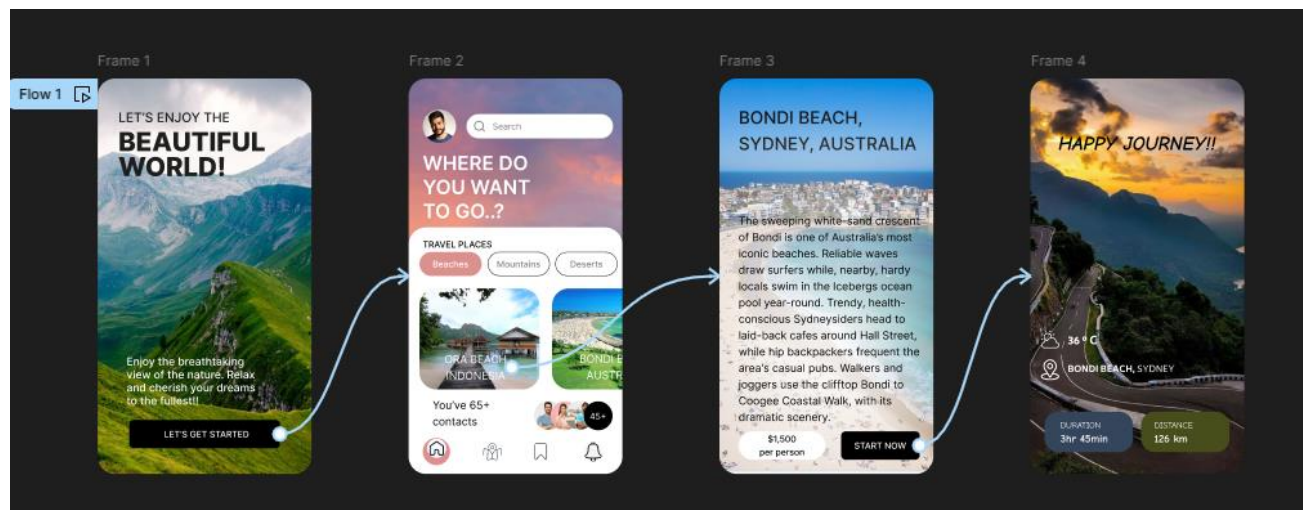
### **AIM:**

To design a user interface with overlays and inlays for menu-based programs.

### **FIGMA FILE LINK:**

<https://www.figma.com/proto/IL1qzT9x4LOs9GUCTM8G6Y/expt-09?node-id=3-13&t=Ep2ogGOY42AeX9J1-1&scaling=min-zoom&page-id=0%3A1&starting-point-node-id=3%3A13>

### **OUTPUT:**



### **RESULT:**

Thus the user interface with overlays and inlays for menu-based program has been designed successfully.