### Lab 5

# Working with UI Controls – 1

1. Create an application that uses GUI components, Font and Color. In this application you have one text view control to display Hello World! two buttons. One button is changing font size and second button is change color.

## 📥 Color.xml

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
  <color name="black">#FF000000</color>
  <color name="white">#FFFFFFF</color>
  <color name="blue">#1E88E5</color>
  <color name="teal">#009688</color>
  <color name="grey">#757575</color>
  <color name="red">#C62828</color>
```

## 🖶 activity\_main.xml

```
</resources>
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  xmlns:app="http://schemas.android.com/apk/res-auto"
  xmlns:tools="http://schemas.android.com/tools"
  android:layout_width="match_parent"
  android:layout_height="match_parent"
  android:gravity="center"
  android:orientation="vertical"
  tools:context=".MainActivity">
  <TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="32dp"
    android:text="Hello World!"
    android:textSize="22sp" />
  <Button
    android:id="@+id/btnSize"
    android:layout_width="wrap_content"
    android:layout height="wrap content"
    android:layout_marginTop="16dp"
    android:text="Change Font Size" />
  <Button
    android:id="@+id/btnColor"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
```

#### </LinearLayout>

# 🖶 MainActivity.java

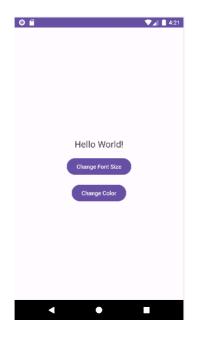
android:text="Change Color"

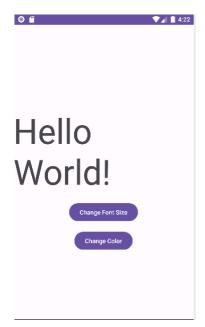
android:layout\_marginTop="16dp" />

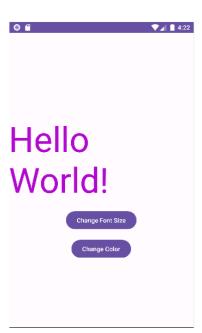
package com.example.practical5; import androidx.appcompat.app.AppCompatActivity; import android.graphics.Color; import android.os.Bundle;

```
import android.view.View;
import android.widget.TextView;
import java.util.Random;
public class MainActivity extends AppCompatActivity {
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    TextView textView = findViewById(R.id.textView);
    findViewById(R.id.btnColor).setOnClickListener(new View.OnClickListener() {
       @Override
       public void onClick(View view) {
         Random rnd = new Random();
         int color = Color.argb(255, rnd.nextInt(256), rnd.nextInt(256), rnd.nextInt(256));
         textView.setTextColor(color);
     });
    findViewById(R.id.btnSize).setOnClickListener(new View.OnClickListener() {
       @Override
       public void onClick(View view) {
         textView.setTextSize(textView.getTextSize()+1);
     });
  }
}
```

### OutPut:







2. Create an application which show various types of EditText control and Toast the value of each EditText on click of the Button.

```
4 activity demo.xml
```

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
  xmlns:tools="http://schemas.android.com/tools"
  android:layout width="match parent"
  android:layout_height="match_parent"
  android:padding="16dp"
  tools:context=".Lab5.DemoActivity">
  <EditText
    android:id="@+id/editName"
    android:layout width="match parent"
    android:layout_height="wrap_content"
    android:hint="Enter your name" />
  <EditText
    android:id="@+id/editPassword"
    android:layout_width="match_parent"
    android:layout height="wrap content"
    android:layout_below="@id/editName"
    android:layout_marginTop="16dp"
    android:hint="Enter your password"
    android:inputType="textPassword" />
  <EditText
    android:id="@+id/editNumericPassword"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:layout below="@id/editPassword"
    android:layout marginTop="16dp"
    android:hint="Enter numeric password"
    android:inputType="numberPassword" />
  <EditText
    android:id="@+id/editEmail"
    android:layout_width="match_parent"
    android:layout height="wrap content"
    android:layout below="@id/editNumericPassword"
    android:layout_marginTop="16dp"
    android:hint="Enter your email"
    android:inputType="textEmailAddress" />
  <EditText
    android:id="@+id/editPhoneNumber"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout below="@id/editEmail"
    android:layout marginTop="16dp"
    android:hint="Enter phone number"
    android:inputType="phone" />
  <EditText
    android:id="@+id/editAddress"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout below="@id/editPhoneNumber"
    android:layout_marginTop="16dp"
```

```
android:hint="Enter address" />
<EditText
  android:id="@+id/editBirthDate"
  android:layout width="match parent"
  android:layout_height="wrap_content"
  android:layout_below="@id/editAddress"
  android:layout marginTop="16dp"
  android:hint="Enter your birthdate"
  android:inputType="date" />
<EditText
  android:id="@+id/editMonth"
  android:layout width="match parent"
  android:layout_height="wrap_content"
  android:layout below="@id/editBirthDate"
  android:layout marginTop="16dp"
  android:hint="Select Month of Bday" />
<EditText
  android:id="@+id/editHobbies"
  android:layout width="match parent"
  android:layout height="wrap content"
  android:layout below="@id/editMonth"
  android:layout_marginTop="16dp"
  android:hint="Select your Hobbies" />
  android:id="@+id/submitButton"
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:layout below="@id/editHobbies"
  android:layout centerHorizontal="true"
  android:layout marginTop="16dp"
  android:text="Submit" />
```

#### </RelativeLayout>

## **4** DemoActivity.java

package com.itcraftsolution.androidtest.Lab5;
import androidx.appcompat.app.AppCompatActivity;
import android.graphics.Color;
import android.graphics.PorterDuff;
import android.os.Bundle;
import android.view.MotionEvent;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ImageButton;
import android.widget.TextView;
import android.widget.Toast;
import com.itcraftsolution.androidtest.MainActivity;
import com.itcraftsolution.androidtest.R;

public class DemoActivity extends AppCompatActivity {

private EditText editName, editPassword, editNumericPassword, editEmail, editPhoneNumber, editAddress, editBirthDate, editMonth, editHobbies; private Button submitButton;

```
@Override
protected void onCreate(Bundle savedInstanceState) {
  super.onCreate(savedInstanceState);
  setContentView(R.layout.activity demo);
  editName = findViewById(R.id.editName);
  editPassword = findViewById(R.id.editPassword);
  editNumericPassword = findViewById(R.id.editNumericPassword);
  editEmail = findViewById(R.id.editEmail);
  editPhoneNumber = findViewById(R.id.editPhoneNumber);
  editAddress = findViewById(R.id.editAddress);
  editBirthDate = findViewById(R.id.editBirthDate);
  editMonth = findViewById(R.id.editMonth);
  editHobbies = findViewById(R.id.editHobbies);
  submitButton = findViewById(R.id.submitButton);
  submitButton.setOnClickListener(new View.OnClickListener() {
     @Override
    public void onClick(View v) {
       String message = "Name: " + editName.getText().toString() + "\n" +
           "Password: " + editPassword.getText().toString() + "\n" +
           "Numeric Password: " + editNumericPassword.getText().toString() + "\n" +
           "Email: " + editEmail.getText().toString() + "\n" +
           "Phone Number: " + editPhoneNumber.getText().toString() + "\n" +
           "Address: " + editAddress.getText().toString() + "\n" +
           "Birth Date: " + editBirthDate.getText().toString() + "\n" +
           "Month: " + editMonth.getText().toString() + "\n" +
           "Hobbies: " + editHobbies.getText().toString();
       Toast.makeText(DemoActivity.this, message, Toast.LENGTH_LONG).show();
  });
```

Output:

JAYMIN VALAKI		
······		
Iamjay1820@gmail.com		
1234567891		
Vadodra		
01/01/2001		
September		
Cyber Security		
Submit		

9:55 <b>O</b> E	数 # G *** (国)
JAYMIN VALAKI	
ļamjay1820@gmail.c	om
1234567891	
Vadodra	
01/01/2001	
September	
Cyber Security	Name: Jaymin
Submit	password:12345678
em	nail:iamjay1820@gmail.com Phonen0:123567891
	city:vadodara
	bod:01/01/2001 month:September
	hobbies: cyber Security

3. Write an application to create simple calculator as shown in figure below.

```
acivity_main.xml
```

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
  xmlns:android="http://schemas.android.com/apk/res/android"
  xmlns:app="http://schemas.android.com/apk/res-auto"
  xmlns:tools="http://schemas.android.com/tools"
  android:layout_width="match_parent"
  android:layout_height="match_parent"
  tools:context=".MainActivity">
  <TextView
    android:id="@+id/input_txt"
    android:layout width="377dp"
    android:layout_height="91dp"
    android:layout above="@id/result txt"
    android:layout_marginStart="16dp"
    android:layout_marginTop="16dp"
    android:layout marginEnd="16dp"
    android:layout_marginBottom="9dp"
    android:textAlignment="textEnd"
    android:textColor="@color/black"
    android:textSize="32dp" />
  <TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:id="@+id/result txt"
    android:text="0"
    android:textSize="64dp"
    android:textAlignment="textEnd"
    android:textColor="@color/black"
    android:layout above="@id/buttons layout"
    android:layout margin="16dp"/>
  <LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    android:layout_alignParentBottom="true"
    android:paddingVertical="16dp"
    android:id="@+id/buttons layout">
    <LinearLayout
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:gravity="center"
      android:orientation="horizontal"
      android:backgroundTint="@color/black">
      <com.google.android.material.button.MaterialButton
         android:layout width="75dp"
         android:layout_height="72dp"
         app:cornerRadius="36dp"
         android:textSize="20dp'
         android:layout_margin="12dp"
         android:id="@+id/b_ac"
```

```
android:textColor="#FF9800"
    android:backgroundTint="@color/black"
    android:text="AC" />
  <com.google.android.material.button.MaterialButton
    android:layout_width="72dp"
    android:layout_height="72dp"
    app:cornerRadius="36dp"
    android:textSize="32dp"
    android:layout_margin="12dp"
    android:id="@+id/b lb"
    android:textColor="#FF9800"
    android:backgroundTint="@color/black"
    android:text="("/>
  <com.google.android.material.button.MaterialButton
    android:layout width="72dp"
    android:layout_height="72dp"
    app:cornerRadius="36dp"
    android:textSize="32dp'
    android:textColor="#FF9800"
    android:backgroundTint="@color/black"
    android:layout margin="12dp"
    android:id="@+id/b_rb"
    android:text=")"/>
  <com.google.android.material.button.MaterialButton
    android:layout_width="72dp"
    android:layout_height="72dp"
    app:cornerRadius="36dp"
    android:textSize="26dp'
    android:layout margin="12dp"
    android:id="@+id/b div"
    android:textColor="#FF9800"
    android:backgroundTint="@color/black"
    android:text="/" />
</LinearLayout>
<LinearLayout
  android:layout width="match parent"
  android:layout_height="wrap_content"
  android:gravity="center"
  android:orientation="horizontal"
  android:backgroundTint="@color/black">
  <com.google.android.material.button.MaterialButton
    android:layout_width="72dp"
    android:layout height="72dp"
    app:cornerRadius="36dp"
    android:textSize="32dp"
    android:textColor="@color/white"
    android:layout_margin="12dp"
    android:id="@+id/b seven"
    android:backgroundTint="@color/black"
    android:text="7" />
```

```
android:layout_width="72dp"
    android:layout_height="72dp"
    app:cornerRadius="36dp"
    android:textSize="32dp"
    android:textColor="@color/white"
    android:layout_margin="12dp"
    android:id="@+id/b eight"
    android:backgroundTint="@color/black"
    android:text="8"/>
  <com.google.android.material.button.MaterialButton
    android:layout_width="72dp"
    android:layout_height="72dp"
    app:cornerRadius="36dp"
    android:textSize="32dp"
    android:textColor="@color/white"
    android:layout margin="12dp"
    android:backgroundTint="@color/black"
    android:id="@+id/b_nine"
    android:text="9"/>
  <com.google.android.material.button.MaterialButton
    android:layout width="72dp"
    android:layout_height="72dp"
    app:cornerRadius="36dp"
    android:textSize="26dp"
    android:layout_margin="12dp"
    android:id="@+id/b_multi"
    android:textColor="#FF9800"
    android:backgroundTint="@color/black"
    android:text="*"/>
</LinearLayout>
<LinearLayout
  android:layout_width="match_parent"
  android:layout_height="wrap_content"
  android:gravity="center"
  android:orientation="horizontal"
  android:backgroundTint="@color/black">
  <com.google.android.material.button.MaterialButton
    android:layout_width="72dp"
    android:layout height="72dp"
    app:cornerRadius="36dp"
    android:textSize="32dp"
    android:textColor="@color/white"
    android:layout_margin="12dp"
    android:id="@+id/b four"
    android:backgroundTint="@color/black"
    android:text="4" />
  <com.google.android.material.button.MaterialButton
    android:layout width="72dp"
    android:layout_height="72dp"
    app:cornerRadius="36dp"
    android:textSize="32dp"
    android:textColor="@color/white"
```

```
android:layout_margin="12dp"
    android:id="@+id/b_five"
    android:backgroundTint="@color/black"
    android:text="5"/>
  <com.google.android.material.button.MaterialButton
    android:layout_width="72dp"
    android:layout height="72dp"
    app:cornerRadius="36dp"
    android:textSize="32dp'
    android:textColor="@color/white"
    android:layout_margin="12dp"
    android:backgroundTint="@color/black"
    android:id="@+id/b six"
    android:text="6"/>
  <com.google.android.material.button.MaterialButton
    android:layout_width="72dp"
    android:layout_height="72dp"
    app:cornerRadius="36dp"
    android:textSize="46dp"
    android:layout_margin="12dp"
    android:id="@+id/b mins"
    android:textColor="#FF9800"
    android:backgroundTint="@color/black"
    android:text="-"/>
</LinearLayout>
<LinearLayout
android:layout_width="match_parent"
android:layout height="wrap content"
android:gravity="center"
android:orientation="horizontal"
android:backgroundTint="@color/black">
<com.google.android.material.button.MaterialButton
  android:layout_width="72dp"
  android:layout_height="72dp"
  app:cornerRadius="36dp"
  android:textSize="32dp"
  android:textColor="@color/white"
  android:layout_margin="12dp"
  android:id="@+id/b one"
  android:backgroundTint="@color/black"
  android:text="1"/>
<com.google.android.material.button.MaterialButton
  android:layout width="72dp"
  android:layout height="72dp"
  app:cornerRadius="36dp"
  android:textSize="32dp"
  android:textColor="@color/white"
  android:layout_margin="12dp"
  android:id="@+id/b_two"
  android:backgroundTint="@color/black"
  android:text="2"/>
```

**MA067** 

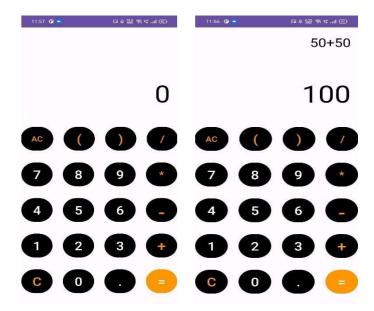
```
<com.google.android.material.button.MaterialButton
    android:layout_width="72dp"
    android:layout_height="72dp"
    app:cornerRadius="36dp"
    android:textSize="32dp"
    android:textColor="@color/white"
    android:layout_margin="12dp"
    android:backgroundTint="@color/black"
    android:id="@+id/b_three"
    android:text="3"/>
  <com.google.android.material.button.MaterialButton
    android:layout_width="72dp"
    android:layout height="72dp"
    app:cornerRadius="36dp"
    android:textSize="36dp"
    android:layout_margin="12dp"
    android:id="@+id/b_plus"
    android:textColor="#FF9800"
    android:backgroundTint="@color/black"
    android:text="+"/>
</LinearLayout>
  <LinearLayout
    android:layout width="match parent"
    android:layout_height="wrap_content"
    android:gravity="center"
    android:orientation="horizontal"
    android:backgroundTint="@color/black">
    <com.google.android.material.button.MaterialButton
       android:layout_width="72dp"
       android:layout height="72dp"
       app:cornerRadius="36dp"
       android:textSize="32dp"
       android:layout_margin="12dp"
       android:id="@+id/b_c"
       android:textColor="#FF9800"
       android:backgroundTint="@color/black"
       android:text="C" />
    <com.google.android.material.button.MaterialButton
       android:layout width="72dp"
       android:layout_height="72dp"
       app:cornerRadius="36dp"
       android:textSize="32dp"
       android:textColor="@color/white"
       android:layout margin="12dp"
       android:id="@+id/b zero"
       android:backgroundTint="@color/black"
       android:text="0"/>
    <com.google.android.material.button.MaterialButton
       android:layout_width="72dp"
       android:layout_height="72dp"
       app:cornerRadius="36dp"
       android:textSize="32dp"
```

```
android:textColor="@color/white"
             android:layout_margin="12dp"
             android:backgroundTint="@color/black"
             android:id="@+id/b dot"
             android:text="."/>
           <com.google.android.material.button.MaterialButton
             android:layout width="72dp"
             android:layout_height="72dp"
             app:cornerRadius="36dp"
             android:textSize="32dp'
             android:textColor="@color/white"
             android:layout margin="12dp"
             android:id="@+id/b equal"
             android:backgroundTint="#FF9800"
             android:text="=" />
         </LinearLayout>
       </LinearLayout>
    </RelativeLayout>
🖶 MainAcivity.java
  package com.example.calculator;
  import android.os.Bundle;
  import android.view.View;
  import android.widget.TextView;
  import androidx.appcompat.app.AppCompatActivity;
  import com.google.android.material.button.MaterialButton;
  import org.mozilla.javascript.Context;
  import org.mozilla.javascript.Scriptable;
  public class MainActivity extends AppCompatActivity implements View.OnClickListener{
    TextView txt_result, txt_input;
    MaterialButton b_dot, b_c, b_equal, b_zero, b_one, b_two, b_three, b_pls,
         b_four, b_five, b_six, b_min, b_seven, b_eight, b_nine, b_multi,
         b_ac, b_lb, b_rb, b_div;
     @Override
    protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity_main);
       txt_result = findViewById(R.id.result_txt);
       txt_input = findViewById(R.id.input_txt);
       assignId(b c, R.id.b c);
       assignId(b_zero, R.id.b_zero);
       assignId(b_dot, R.id.b_dot);
       assignId(b_equal, R.id.b_equal);
       assignId(b_one, R.id.b_one);
       assignId(b_two, R.id.b_two);
       assignId(b_three, R.id.b_three);
       assignId(b_pls, R.id.b_plus);
```

```
assignId(b_four, R.id.b_four);
  assignId(b_five, R.id.b_five);
  assignId(b_six, R.id.b_six);
  assignId(b_min, R.id.b_mins);
  assignId(b_seven, R.id.b_seven);
  assignId(b_eight, R.id.b_eight);
  assignId(b_nine, R.id.b_nine);
  assignId(b_multi, R.id.b_multi);
  assignId(b_ac, R.id.b_ac);
  assignId(b_lb, R.id.b_lb);
  assignId(b_rb, R.id.b_rb);
  assignId(b_div, R.id.b_div);
void assignId(MaterialButton btn,int id){
  btn = findViewById(id);
  btn.setOnClickListener(this);
@Override
public void onClick(View view) {
  MaterialButton button = (MaterialButton) view;
  String buttonText = button.getText().toString();
  String dataToCalculate = txt_input.getText().toString();
  if(buttonText.equals("AC")){
     txt_input.setText("");
     txt_result.setText("0");
    return;
  if(buttonText.equals("=")){
    txt_input.setText(txt_result.getText());
    return;
  if(buttonText.equals("C")){
     dataToCalculate = dataToCalculate.substring(0,dataToCalculate.length()-1);
  }else{
     dataToCalculate = dataToCalculate+buttonText;
  txt_input.setText(dataToCalculate);
  String finalResult = getResult(dataToCalculate);
  if(!finalResult.equals("Err")){
    txt_result.setText(finalResult);
  }
}
private String getResult(String dataToCalculate) {
  try{
     org.mozilla.javascript.Context context = Context.enter();
     context.setOptimizationLevel(-1);
     Scriptable scriptable = context.initStandardObjects();
```

```
String finalResult = context.evaluateString(scriptable, dataToCalculate, "Javascript", 1, null).toString();
if(finalResult.endsWith(".0")){
      finalResult = finalResult.replace(".0","");
    }
    return finalResult;
} catch (Exception e){
    return "Err";
}
}
```

#### **OutPut:**



- 4. Create an Activity having three Radio Button group. One for color, one for alignment and one for Text size perform necessary changes according to Radio button selected
  - activity\_lab5\_last.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    tools:context=".Lab5.Lab5LastActivity">

    <RadioGroup
    android:id="@+id/colorRadioGroup"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="16dp"
    android:orientation="horizontal">
```

```
<RadioButton
    android:id="@+id/radioRed"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:text="Red"/>
  <RadioButton
    android:id="@+id/radioBlue"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Blue" />
  <RadioButton
    android:id="@+id/radioGreen"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:text="Green" />
</RadioGroup>
<RadioGroup
  android:id="@+id/alignmentRadioGroup"
  android:layout width="match parent"
  android:layout height="wrap content"
  android:layout_below="@id/colorRadioGroup"
  android:layout_marginBottom="16dp"
  android:orientation="horizontal">
  < Radio Button
    android:id="@+id/radioLeft"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Left" />
  <RadioButton
    android:id="@+id/radioCenter"
    android:layout_width="wrap_content"
    android:layout height="wrap content"
    android:text="Center" />
  <RadioButton
    android:id="@+id/radioRight"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:text="Right" />
</RadioGroup>
<RadioGroup
  android:id="@+id/textSizeRadioGroup"
  android:layout_width="match_parent"
  android:layout_height="wrap_content"
  android:layout_below="@id/alignmentRadioGroup"
  android:layout marginBottom="16dp"
  android:orientation="horizontal">
  <RadioButton
    android:id="@+id/radioSmall"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Small" />
  <RadioButton
    android:id="@+id/radioMedium"
    android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"
         android:text="Medium" />
       <RadioButton
         android:id="@+id/radioLarge"
         android:layout width="wrap content"
         android:layout_height="wrap_content"
         android:text="Large" />
     </RadioGroup>
     <TextView
       android:id="@+id/textView"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:layout below="@id/textSizeRadioGroup"
       android:layout_centerHorizontal="true"
       android:layout_marginTop="16dp"
       android:text="Sample Text"
       android:textSize="18sp"/>
  </RelativeLayout>
Lab5LastActivity.java
    package com.itcraftsolution.androidtest.Lab5;
    import androidx.appcompat.app.AppCompatActivity;
    import android.os.Bundle;
    import android.view.Gravity;
    import android.view.View;
    import android.widget.RadioButton;
    import android.widget.RadioGroup;
    import android.widget.TextView;
    import com.itcraftsolution.androidtest.R;
    public class Lab5LastActivity extends AppCompatActivity {
      private TextView textView;
      private RadioGroup colorRadioGroup, alignmentRadioGroup, textSizeRadioGroup;
      @Override
      protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_lab5_last);
        textView = findViewById(R.id.textView);
        colorRadioGroup = findViewById(R.id.colorRadioGroup);\\
        alignmentRadioGroup = findViewById(R.id.alignmentRadioGroup);
        textSizeRadioGroup = findViewById(R.id.textSizeRadioGroup);
        colorRadioGroup.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {
           @Override
           public void onCheckedChanged(RadioGroup group, int checkedId) {
             if (checkedId == R.id.radioRed) {
               textView.setTextColor(0xFFE57373);
             } else if (checkedId == R.id.radioBlue) {
               textView.setTextColor(0xFF64B5F6):
             } else if (checkedId == R.id.radioGreen) {
               textView.setTextColor(0xFF81C784);
             }
```

```
}
});
alignmentRadioGroup.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {
  @Override
  public void onCheckedChanged(RadioGroup group, int checkedId) {
    if (checkedId == R.id.radioLeft) {
       textView.setGravity(Gravity.START);
    } else if (checkedId == R.id.radioCenter) {
       textView.setGravity(Gravity.CENTER);
    } else if (checkedId == R.id.radioRight) {
       textView.setGravity(Gravity.END);
  }
});
textSizeRadioGroup.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {
  public void onCheckedChanged(RadioGroup group, int checkedId) {
    if (checkedId == R.id.radioSmall) {
       textView.setTextSize(16);
     } else if (checkedId == R.id.radioMedium) {
       textView.setTextSize(18);
    } else if (checkedId == R.id.radioLarge) {
       textView.setTextSize(22);
});
```

# **Output:**



