

### Exercise:

1. Write program to create a toggle button to display ON/ OFF Bluetooth on the display screen.

- activity\_main.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"
    tools:context=".MainActivity">
    <ToggleButton
        android:id="@+id/toggleButton"
        android:layout_width="wrap_content"
        android:layout_height="50dp"
        android:text="ToggleButton"
        android:textOn="ON"
        android:textOff="OFF"
        android:textSize="20sp"
        android:layout_centerInParent="true"/>

    <TextView android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@id/toggleButton"
        android:text="Bluetooth is OFF"
        android:gravity="center_horizontal"
        android:layout_marginTop="20dp"
        android:textSize="20sp" />
</RelativeLayout>
```

- acitivitymain.java

```
package com.example.togglebutton;
import androidx.appcompat.app.AppCompatActivity;
import android.widget.*;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
    ToggleButton toggleButton;
    TextView textView;
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        toggleButton = findViewById(R.id.toggleButton);
        textView = findViewById(R.id.textView);
        toggleButton.setOnCheckedChangeListener(new
        CompoundButton.OnCheckedChangeListener() {
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
```

```
        if(isChecked){
            textView.setText("Bluetooth is " + toggleButton.getTextOn());
        }
        else{
            textView.setText("Bluetooth is " + toggleButton.getTextOff());
        }
    });
}
```

**OUTPUT:**



## 2. Write a program to create a simple calculator.

- activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.
com/apk/res/android"
xmlns:tools="http://schemas.android.co
m/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation="vertical"
tools:context=".MainActivity">
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Simple Calculator"
android:layout_marginLeft="100dp"
android:textSize="20dp"
android:textStyle="bold"/>

<LinearLayout
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:orientation="horizontal">
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginLeft="20dp"
android:text="Enter 1st Number:"
android:textSize="20dp"
android:textStyle="bold"/>
<EditText
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:id="@+id/edittext1"
android:hint="Enter Number"
android:layout_marginLeft="25dp"/>
</LinearLayout>

<LinearLayout
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:orientation="horizontal">
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Enter 2nd Number:"
android:layout_marginLeft="20dp"
android:textSize="20dp"
android:textStyle="bold"/>
<EditText
android:layout_width="wrap_content"
android:layout_height="wrap_content"
```

```
android:id="@+id/edittext2"
android:hint="Enter Number"
android:layout_marginLeft="20dp"/>
</LinearLayout>

<LinearLayout
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:orientation="horizontal">
<Button
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="ADD"
android:layout_marginLeft="10dp"
android:layout_marginTop="7dp"
android:id="@+id/button1"
android:onClick="addition"/>
<Button
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="SUB"
android:layout_marginLeft="10dp"
android:layout_marginTop="7dp"
android:id="@+id/button2"
android:onClick="subtraction"/>
<Button
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="MUL"
android:layout_marginLeft="10dp"
android:layout_marginTop="7dp"
android:id="@+id/button3"
android:onClick="multiplication"/>
<Button
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="DIV"
android:layout_marginLeft="10dp"
android:layout_marginTop="7dp"
android:id="@+id/button4"
android:onClick="division"/>
</LinearLayout>
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:id="@+id/textview1"
android:textSize="20sp"
android:textStyle="bold"
android:layout_marginLeft="100dp"
android:layout_marginTop="20dp"/>
</LinearLayout>
```

- activitymain.java

```
package com.example.pr9q2_calculator;
import
androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.Button;
import android.widget.EditText;
import android.view.View;
import android.widget.TextView;
public class MainActivity extends
AppCompatActivity {
    EditText e1, e2; Button b1;
    TextView resultTextView;
    protected void onCreate(Bundle
savedInstanceState){
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        e1 = findViewById(R.id.edittext1);
        e2 = findViewById(R.id.edittext2);
        b1 = findViewById(R.id.button1);
        resultTextView = findViewById
(R.id.textview1); }
    public void addition(View view) {
        String num1 = e1.getText().toString();
        String num2 = e2.getText().toString();
        double number1=Double.parseDouble
(num1);double number2 =
Double.parseDouble (num2);double
number3 = number1 + number2;
```

```
resultTextView.setText("Result: " +
number3);}public void subtraction(View
view) {String num1 = e1.getText().
toString();String num2 = e2.getText().
toString();double number1 =
Double.parseDouble(num1);double
number2 = Double.parseDouble(num2);
double number3 = number1 - number2;
resultTextView.setText("Result: " +
number3);}
    public void multiplication(View view) {
        String num1 = e1.getText().toString();
        String num2 =
e2.getText().toString();double number1 =
Double.parseDouble(num1);double
number2 = Double.parseDouble(num2);
        double number3 = number1 * number2;
        resultTextView.setText("Result: " +
number3);}
    public void division(View view) {
        String num1 = e1.getText().toString();
        String num2 =
e2.getText().toString();double number1 =
Double.parseDouble(num1);double
number2 = Double.parseDouble(num2);
        double number3 = number1 /
number2resultTextView.setText("Result:
" + number3);}
    }
```

### OUTPUT:

