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"</p>
  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_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"</pre>

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"/> 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>

• acitivitymain.java

```
package com.example.pr9q2 calculator;
import
androidx.appcompat.app.AppCompatAct
ivity;
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:

