Practical 9

1. Write a program to create 2 toggle buttons and on the click of the button it should display which button is pressed.
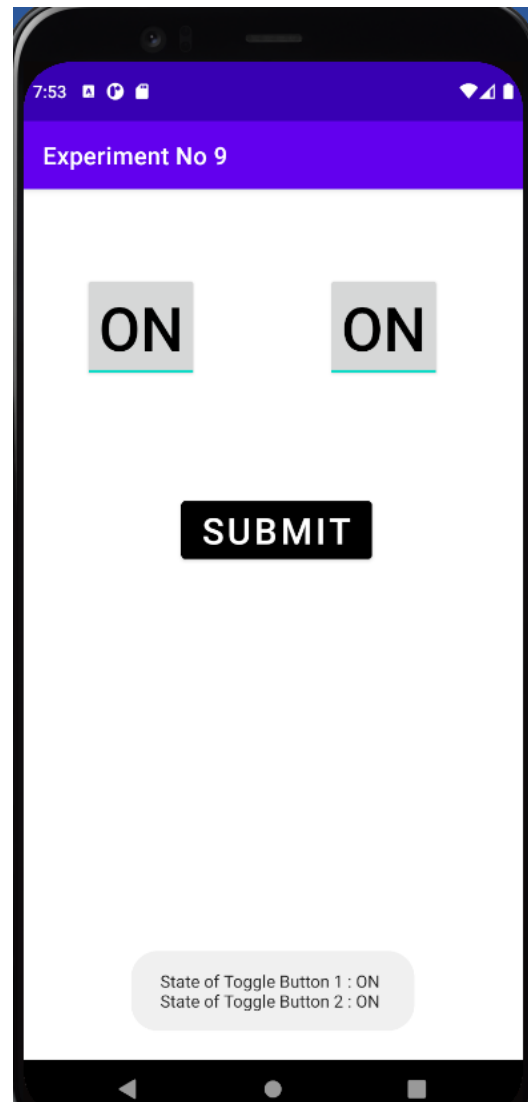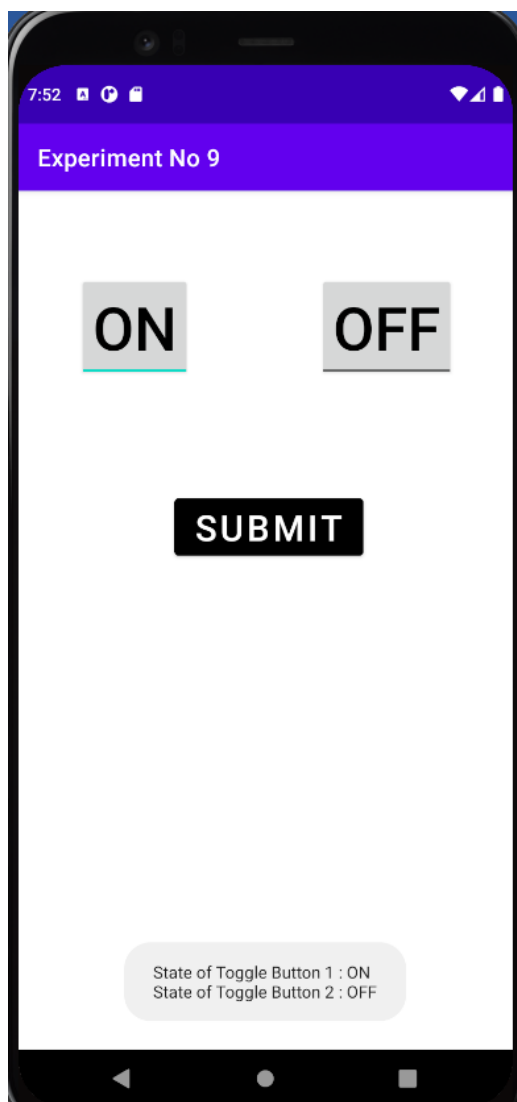
Code :

```xml
<?xml version="1.0" encoding="utf-8"?>
<AbsoluteLayout 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">
    <ToggleButton
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textOn="ON"
        android:textOff="OFF"
        android:textColor="@color/black"
        android:textSize="50dp"
        android:layout_x="50dp"
        android:layout_y="70dp"
        android:id="@+id/tbtn1"
        />
    <ToggleButton
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textOn="ON"
        android:textOff="OFF"
        android:textColor="@color/black"
        android:textSize="50dp"
        android:layout_x="250dp"
        android:layout_y="70dp"
        android:id="@+id/tbtn2"
        />
    <Button
        android:id="@+id/nor_btn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="SUBMIT"
        android:textSize="30dp"
        android:backgroundTint="@color/black"
        android:layout_y="250dp"
        android:layout_x="130dp"
        />
</AbsoluteLayout>
```

Java Code :

```java
package com.example.myapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;
import android.widget.ToggleButton;
public class MainActivity extends AppCompatActivity {
    ToggleButton b1,b2;
    Button btn;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btn = (Button) findViewById(R.id.nor_btn);
        b1 = (ToggleButton) findViewById(R.id.tbtn1);
        b2 = (ToggleButton) findViewById(R.id.tbtn2);
        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Toast.makeText(getApplicationContext(), "State of Toggle Button 1 : "+b1.getText()+"\n"+"State
of Toggle Button 2 : "+b2.getText(), Toast.LENGTH_SHORT).show();
            }
        });
    }
}
```

Output :

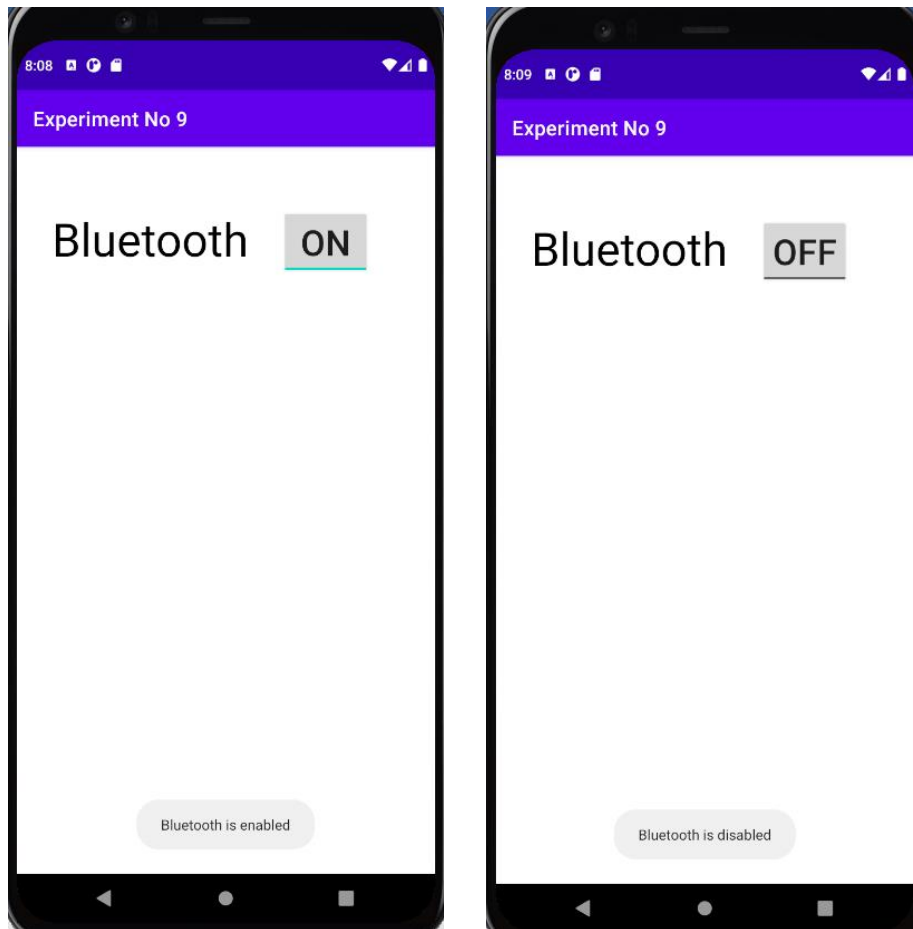## 2. Write a program to create a toggle button to display the ON/OFF Bluetooth on the display screen.

Code:

```xml
<?xml version="1.0" encoding="utf-8"?>
<AbsoluteLayout 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=".MainActivity2">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Bluetooth"
        android:textSize="45dp"
        android:textColor="@color/black"
        android:layout_x="35dp"
        android:layout_y="60dp"
        />
    <ToggleButton
        android:id="@+id/tglbtn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textOn="ON"
        android:textOff="OFF"
        android:textSize="35dp"
        android:layout_y="60dp"
        android:layout_x="260dp"
        />
</AbsoluteLayout>
```

Java Code :

```java
package com.example.myapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.CompoundButton;
import android.widget.Toast;
import android.widget.ToggleButton;
public class MainActivity2 extends AppCompatActivity {
    ToggleButton btn;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        btn = (ToggleButton) findViewById(R.id.tglbtn);
        btn.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton compoundButton, boolean b) {
                if(btn.isChecked()){
                    Toast.makeText(getApplicationContext(), "Bluetooth is enabled", Toast.LENGTH_SHORT).show();
                }
                else{
                    Toast.makeText(getApplicationContext(), "Bluetooth is disabled", Toast.LENGTH_SHORT).show();
                }}
        });}}
```

Output:

3. Write a program to create one rounded corner image button and one normal image button and on the click of the button it should display which button is pressed.

Code:

```xml
<?xml version="1.0" encoding="utf-8"?>
<AbsoluteLayout 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=".MainActivity3">
    <ImageButton
        android:id="@+id/insta"
        android:layout_width="200dp"
        android:layout_height="200dp"
        android:layout_x="100dp"
        android:layout_y="70dp"
        android:src="@drawable/img"
        android:scaleType="fitCenter"
        android:background="@drawable/round"
        />
```

```xml
    <ImageButton
        android:id="@+id/face"
        android:layout_width="200dp"
        android:layout_height="200dp"
        android:src="@drawable/img_1"
        android:layout_x="100dp"
        android:layout_y="340dp"
        android:background="@drawable/normal"
        android:scaleType="fitCenter"
        />
</AbsoluteLayout>
```

Java Code :

```java
package com.example.myapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageButton;
import android.widget.Toast;
public class MainActivity3 extends AppCompatActivity {
    ImageButton b1,b2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main3);
        b1 = (ImageButton) findViewById(R.id.insta);
        b2 = (ImageButton) findViewById(R.id.face);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Toast.makeText(getApplicationContext(), "You have selected Instagram",
Toast.LENGTH_SHORT).show();
            }
        });
        b2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Toast.makeText(getApplicationContext(), "You have selected Facebook",
Toast.LENGTH_SHORT).show();
            }
        });
    }}
```
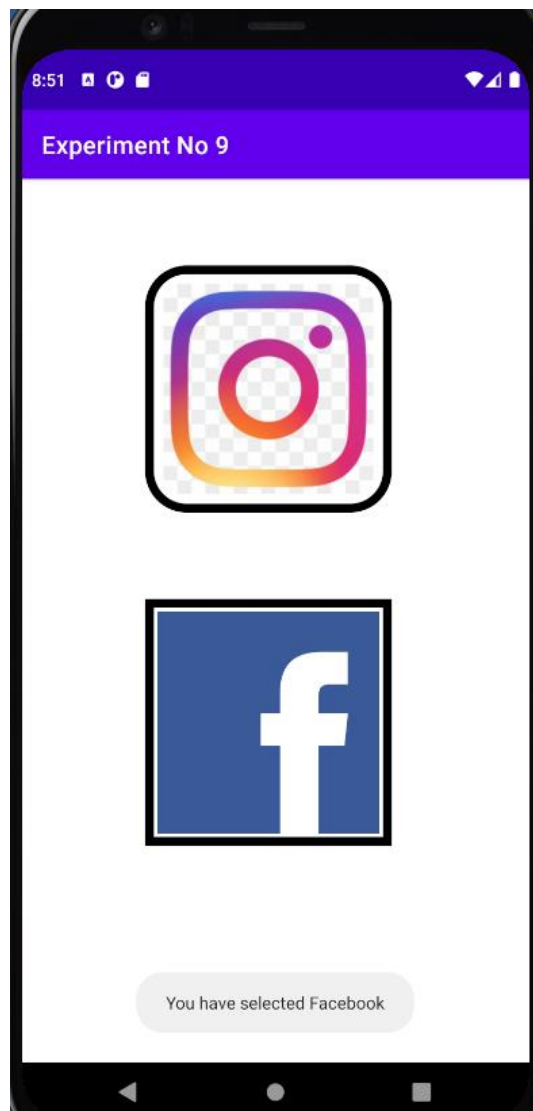
Round.xml Code :

```xml
<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">
    <solid android:color="#ffff" />
    <stroke android:width="7dp"/>
    <corners android:radius="30dp"/>
    <padding android:left="15dp" android:top="15dp" android:right="15dp" android:bottom="15dp" />
</shape>
```
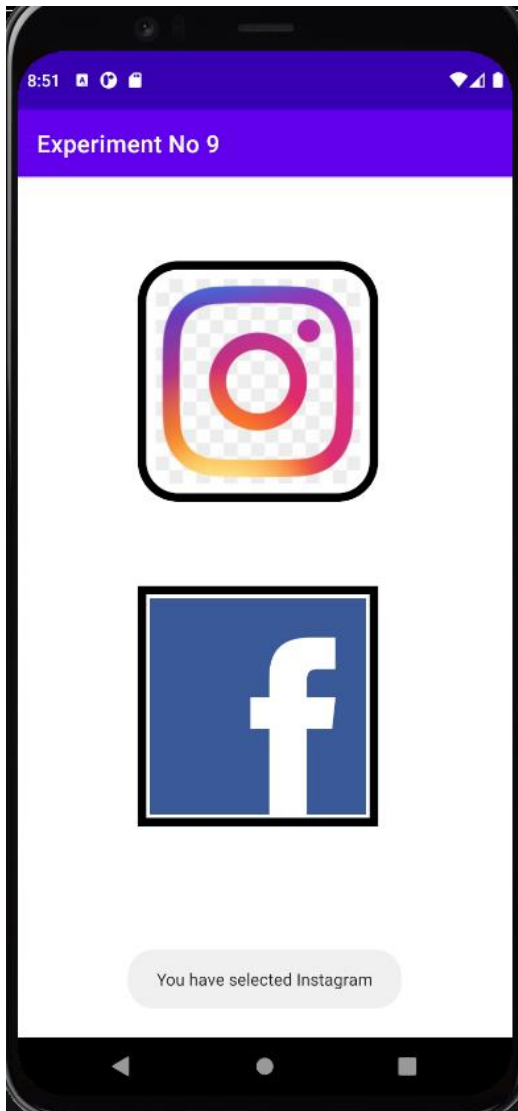
Normal.xml Code :

```xml
<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">
    <solid android:color="#ffff" />
    <stroke android:width="7dp"/>
    <padding android:left="10dp" android:top="10dp" android:right="10dp" android:bottom="10dp" />
</shape>
```

Output:

4. Write a program to make a simple calculator.

Xml Code:

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
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"
  android:orientation="vertical"
  >
  <TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="30dp"
    android:text="Calculator app"
    android:textSize="50dp"
    android:gravity="center"
    android:textColor="#000000"
    android:fontFamily="cursive"
    android:textStyle="bold"
    android:layout_gravity="center"
    />
  <EditText
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter 1st number"
    android:layout_marginTop="40dp"
    android:layout_marginLeft="20dp"
    android:layout_marginRight="20dp"
    android:textColor="@color/black"
    android:textSize="20dp"
    android:id="@+id/num1"
    />
  <EditText
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter 2nd number"
    android:layout_marginTop="15dp"
    android:layout_marginLeft="20dp"
    android:layout_marginRight="20dp"
    android:textColor="@color/black"
    android:textSize="20dp"
    android:id="@+id/num2"
    />
  <LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    >
  <TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Result  :  "
    android:textSize="35dp"
    android:layout_marginTop="20dp"
    android:textColor="@color/black"
    android:textStyle="bold"
    android:layout_marginLeft="100dp"
    />
  <TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text=""
    android:textSize="35dp"
    android:layout_marginTop="20dp"
    android:textColor="@color/black"
    android:textStyle="bold"
    android:id="@+id/result"
    />
  </LinearLayout>
  <Button
    android:layout_width="match_parent"
    android:layout_height="60dp"
    android:textSize="20dp"
    android:text="Addition"
    android:layout_marginTop="30dp"
    android:backgroundTint="@color/black"
    android:layout_marginLeft="20dp"
    android:layout_marginRight="20dp"
    android:id="@+id/add"
    />
  <Button
    android:layout_width="match_parent"
    android:layout_height="60dp"
    android:textSize="20dp"
    android:text="Substraction"
    android:layout_marginTop="5dp"
    android:backgroundTint="@color/black"
    android:layout_marginLeft="20dp"
    android:layout_marginRight="20dp"
    android:id="@+id/sub"
    />
  <Button
    android:layout_width="match_parent"
    android:layout_height="60dp"
    android:textSize="20dp"
    android:text="Multiplication"
    android:layout_marginTop="5dp"
    android:backgroundTint="@color/black"
    android:layout_marginLeft="20dp"
```

```
        android:layout_marginRight="20dp"                      />
        android:id="@+id/mul"                              <Button
        />                                                    android:layout_width="match_parent"
    <Button                                                   android:layout_height="60dp"
        android:layout_width="match_parent"                   android:textSize="20dp"
        android:layout_height="60dp"                          android:text="Modulus"
        android:textSize="20dp"                               android:layout_marginTop="5dp"
        android:text="Division"                               android:backgroundTint="@color/black"
        android:layout_marginTop="5dp"                        android:layout_marginLeft="20dp"
        android:backgroundTint="@color/black"                 android:layout_marginRight="20dp"
        android:layout_marginLeft="20dp"                      android:id="@+id/mod"
        android:layout_marginRight="20dp"                     />
        android:id="@+id/div"                             </LinearLayout>
```

Java Code:

```java
package com.example.mycalulator;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
    Button b1,b2,b3,b4,b5;
    EditText n1,n2;
    TextView finalresult;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        n1 = findViewById(R.id.num1);
        n2 = findViewById(R.id.num2);
        finalresult = findViewById(R.id.result);
        b1 = findViewById(R.id.add);
        b2 = findViewById(R.id.sub);
        b3 = findViewById(R.id.mul);
        b4 = findViewById(R.id.div);
        b5 = findViewById(R.id.mod);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                int a = Integer.parseInt(n1.getText().toString());
                int b = Integer.parseInt(n2.getText().toString());
                int sum = a+b;
                finalresult.setText(Integer.toString(sum));
            }
        });
        b2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                int a = Integer.parseInt(n1.getText().toString());
                int b = Integer.parseInt(n2.getText().toString());
                int sub = a-b;
                finalresult.setText(Integer.toString(sub));
            }
        });
        b3.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
```

```java
        int a = Integer.parseInt(n1.getText().toString());
        int b = Integer.parseInt(n2.getText().toString());
        int mul = a*b;
        finalresult.setText(Integer.toString(mul));
      }
    });
    b4.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View view) {
        int a = Integer.parseInt(n1.getText().toString());
        int b = Integer.parseInt(n2.getText().toString());
        int div = a/b;
        finalresult.setText(Integer.toString(div));
      }
    });
    b5.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View view) {
        int a = Integer.parseInt(n1.getText().toString());
        int b = Integer.parseInt(n2.getText().toString());
        int mod = a%b;
        finalresult.setText(Integer.toString(mod));
      }
    });
  }
}
```

Output :