

```

////////////////////////////////////
public void click(View view){
    String msg="You have clicked Button" view.getId();
    Toast.makeText(this, msg, Toast.LENGTH_SHORT).show();
}
////////////////////////////////////

```

1.ALL ONSTART STUFF

```
package com.example.program1;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.widget.Toast;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        Toast.makeText(getApplicationContext(),"onCreate",Toast.LENGTH_SHORT).show();
```

```
    }
```

```
    @Override
```

```
    protected void onStart() {
```

```
        super.onStart();
```

```
        Toast.makeText(getApplicationContext(),"onStart",Toast.LENGTH_SHORT).show();
```

```
    }
```

```
    @Override
```

```
    protected void onResume() {
```

```
        super.onResume();
```

```
        Toast.makeText(getApplicationContext(),"onResume",Toast.LENGTH_SHORT).show();
```

```
    }
```

```
    @Override
```

```
    protected void onPause() {
```

```
        super.onPause();
```

```
        Toast.makeText(getApplicationContext(),"onPause",Toast.LENGTH_SHORT).show();
```

```
    }
```

```

@Override
protected void onStop() {
    super.onStop();
    Toast.makeText(getApplicationContext(),"onStop",Toast.LENGTH_SHORT).show();
}

@Override
protected void onDestroy() {
    super.onDestroy();
    Toast.makeText(getApplicationContext(),"onDestroy",Toast.LENGTH_SHORT).show();
}

@Override
protected void onRestart() {
    super.onRestart();
    Toast.makeText(getApplicationContext(),"onRestart",Toast.LENGTH_SHORT).show();
}
}

```

2. LINEAR LAYOUT adding two number

XML FILE

```

<?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">

    <EditText
        android:id="@ id/e1"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:layout_marginTop="200dp"
        android:hint="first"

```

```

/>

<EditText
    android:id="@ id/e2"
    android:layout_width="100dp"
    android:layout_height="wrap_content"
    android:layout_gravity="center"
    android:layout_marginTop="20dp"
    android:hint="second"
/>

<Button
    android:id="@ id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="160dp"
    android:layout_marginTop="35dp"
    android:gravity="center"
    android:text="add"
    tools:layout_editor_absoluteX="163dp"
    tools:layout_editor_absoluteY="545dp" />
</LinearLayout>

```

JAVA FILE

```

package com.example.program2linearlayout;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    private EditText et1,et2;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        clicked();
    }
}

```

```

public void clicked()
{
    et1=(EditText) findViewById(R.id.e1);
    et2=(EditText) findViewById(R.id.e2);
    Button b1 = (Button) findViewById(R.id.button);
    b1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            String value1=et1.getText().toString();
            String value2=et2.getText().toString();
            int a=Integer.parseInt(value1);
            int b=Integer.parseInt(value2);
            int sum = a + b;

            Toast.makeText(getApplicationContext(),String.valueOf(sum), Toast.LENGTH_LONG).show();
        }
    });
}
}

```

3.RELATIVE LAYOUT

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"
    android:paddingLeft="10dp"
    android:paddingRight="10dp"
    tools:context=".MainActivity">
    <Button
        android:id="@+id/btn1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentLeft="true"
        android:text="Button1" />
    <Button
        android:id="@+id/btn2"
        android:layout_width="wrap_content"

```

```
        android:layout_height="wrap_content"
        android:layout_alignParentRight="true"
        android:layout_centerVertical="true"
        android:text="Button2" />
<Button
    android:id="@ id/btn3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentLeft="true"
    android:layout_centerVertical="true"
    android:text="Button3" />
<Button
    android:id="@ id/btn4"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_alignParentBottom="true"
    android:text="Button4" />
<Button
    android:id="@ id/btn5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignBottom="@ id/btn2"
    android:layout_centerHorizontal="true"
    android:text="Button5" />
<Button
    android:id="@ id/btn6"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_above="@ id/btn4"
    android:layout_centerHorizontal="true"
    android:text="Button6" />
<Button
    android:id="@ id/btn7"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_toEndOf="@ id/btn1"
    android:layout_toRightOf="@ id/btn1"
    android:layout_alignParentRight="true"
    android:text="Button7" />

</RelativeLayout>
```

4.CONSTRAINT LAYOUT autocomplete

XML

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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/tv1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Select Programming langauage"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.497"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.301" />
```

```
<AutoCompleteTextView
    android:id="@ id/at1"
    android:layout_width="100dp"
    android:layout_height="wrap_content"
    android:layout_marginBottom="288dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@ id/textView"
    app:layout_constraintVertical_bias="0.289" />
```

```
<Button
    android:id="@ id/b1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Submit"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
```

```

        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@ id/at1" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

JAVA

```
package com.example.program4constraintlayout;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.AdapterView;
```

```
import android.widget.AutoCompleteTextView;
```

```
import android.widget.Button;
```

```
import android.widget.Toast;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    String[] language ={"C","C ","Java",".NET","iPhone","Android","ASP.NET","PHP"};
```

```
    Button b;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        clicked();
```

```
    }
```

```
    public void clicked()
```

```
    {
```

```
        ArrayAdapter<String> adapter = new
```

```
ArrayAdapter<String>(this,android.R.layout.select_dialog_item,language);
```

```
        AutoCompleteTextView actv =findViewById(R.id.at1);
```

```
        actv.setThreshold(1);
```

```
        actv.setAdapter(adapter);
```

```
        b=findViewById(R.id.b1);
```

```
        b.setOnClickListener(new View.OnClickListener() {
```

```
            @Override
```

```
            public void onClick(View view) {
```

```
                String s = actv.getText().toString();
```

```
                Toast.makeText(MainActivity.this,s, Toast.LENGTH_SHORT).show();
```

```
            }
```

```
        });
```

```
}  
}
```

4. Date picker

```
<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout  
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/tv1"  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:text="Date picker"  
        android:textStyle="bold"  
        app:layout_constraintBottom_toBottomOf="parent"  
        app:layout_constraintEnd_toEndOf="parent"  
        app:layout_constraintStart_toStartOf="parent"  
        app:layout_constraintTop_toTopOf="parent"  
        app:layout_constraintVertical_bias="0.042" />  
  
    <DatePicker  
        android:id="@ id/dp1"  
        android:layout_width="238dp"  
        android:layout_height="212dp"  
        android:layout_marginTop="48dp"  
        android:calendarViewShown="false"  
        android:datePickerMode="spinner"  
        app:layout_constraintEnd_toEndOf="parent"  
        app:layout_constraintHorizontal_bias="0.496"  
        app:layout_constraintStart_toStartOf="parent"  
        app:layout_constraintTop_toBottomOf="@ id/tv1" />  
  
    <Button  
        android:id="@ id/b1"  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:text="submit"
```



```

        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@ id/dp1"
        app:layout_constraintVertical_bias="0.176" />

```

```

</androidx.constraintlayout.widget.ConstraintLayout>

```

```

package com.example.program5date_time_picker;

```

```

import androidx.appcompat.app.AppCompatActivity;

```

```

import android.os.Bundle;

```

```

import android.view.View;

```

```

import android.widget.Button;

```

```

import android.widget.DatePicker;

```

```

import android.widget.TextView;

```

```

public class MainActivity extends AppCompatActivity {

```

```

    DatePicker dp;

```

```

    TextView tv;

```

```

    Button b;

```

```

    @Override

```

```

    protected void onCreate(Bundle savedInstanceState) {

```

```

        super.onCreate(savedInstanceState);

```

```

        setContentView(R.layout.activity_main);

```

```

        clicked();

```

```

    }

```

```

    public void clicked()

```

```

    {

```

```

        dp = findViewById(R.id.dp1);

```

```

        tv = findViewById(R.id.tv1);

```

```

        b = findViewById(R.id.b1);

```

```

        b.setOnClickListener(new View.OnClickListener() {

```

```

            @Override

```

```

            public void onClick(View view) {

```

```

                tv.setText("Selected Date: " dp.getDayOfMonth() "/" (dp.getMonth() + 1) "/"

```

```

dp.getYear());

```

```

            }

```

```

        });

```

```

    }

```

```
}
```

5.TIME PICKER

```
<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:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context=".MainActivity">
```

```
<TimePicker
    android:id="@ id/simpleTimePicker"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="50dp"
    android:background="#090"
    android:padding="20dp"
    android:timePickerMode="spinner" />
```

```
<TextView
    android:id="@ id/time"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    android:text="Time Is ::"
    android:textColor="#090"
    android:textSize="20sp"
    android:textStyle="bold" />
```

```
</RelativeLayout>
```

```
public class MainActivity extends AppCompatActivity {
```

```
    TextView time;
```

```

TimePicker simpleTimePicker;

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    time = findViewById(R.id.time);
    simpleTimePicker = findViewById(R.id.simpleTimePicker);
    // simpleTimePicker.setIs24HourView(false); // used to display AM/PM mode
    // perform set on time changed listener event
    simpleTimePicker.setOnTimeChangedListener(new TimePicker.OnTimeChangedListener()
    {
        @Override
        public void onTimeChanged(TimePicker view, int hourOfDay, int minute) {
            // display a toast with changed values of time picker
            Toast.makeText(getApplicationContext(), hourOfDay " " minute,
            Toast.LENGTH_SHORT).show();
            time.setText("Time is :: " hourOfDay " : " minute); // set the current time in text view
        }
    });
}
}

```

6.ALERT DIALOG

7.RADIOBUTTON

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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/textView"

```

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginStart="16dp"
android:layout_marginTop="40dp"
android:text="Select your fav food"
android:textSize="35sp"
android:textStyle="bold"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

```
<RadioButton
    android:id="@ id/dosa"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="64dp"
    android:layout_marginTop="100dp"
    android:text="Dosa"
    android:checked="false"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@ id/textView" />
```

```
<RadioButton
    android:checked="false"
    android:id="@ id/idly"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="64dp"
    android:layout_marginTop="44dp"
    android:text="Idly"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@ id/vada" />
```

```
<RadioButton
    android:id="@ id/vada"
    android:checked="false"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="64dp"
    android:layout_marginTop="48dp"
    android:text="Vada"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@ id/dosa" />
```

```
<Button
```

```

        android:id="@ id/b1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@ id/idly"
        app:layout_constraintVertical_bias="0.353" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

```
package com.example.program7radiobutton;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.RadioButton;
```

```
import android.widget.Toast;
```

```

public class MainActivity extends AppCompatActivity {
    RadioButton d , v, i;
    Button b;
    String selectedfood;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        d = findViewById(R.id.dosa);
        v = findViewById(R.id.vada);
        i = findViewById(R.id.idly);
        b = findViewById(R.id.b1);
        b.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                if(d.isChecked())
                    selectedfood = d.getText().toString();
                else if(v.isChecked())

```

```

        selectedfood =v.getText().toString();
    else
        selectedfood=i.getText().toString();
    Toast.makeText(MainActivity.this, selectedfood, Toast.LENGTH_SHORT).show();
}
});
}
}

```

9.CHECK BOX

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="40dp"
        android:layout_marginTop="68dp"
        android:text="Select your choices"
        android:textColor="@color/black"
        android:textSize="35sp"
        android:textStyle="bold"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <CheckBox
        android:id="@ id/co"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="40dp"
        android:layout_marginTop="120dp"
        android:text="coffee"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@ id/textView" />

```

```
<CheckBox
    android:id="@ id/sa"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="40dp"
    android:layout_marginTop="52dp"
    android:text="sandwich"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@ id/co" />
```

```
<CheckBox
    android:id="@ id/dosa"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="40dp"
    android:layout_marginTop="52dp"
    android:text="Dosa"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@ id/sa" />
```

```
<Button
    android:id="@ id/b1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Submit"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@ id/dosa"
    app:layout_constraintVertical_bias="0.394" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

JAVA

```
package com.example.program8checkbox;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```

import android.widget.Button;
import android.widget.CheckBox;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    CheckBox c,s,d;
    Button b;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        c = findViewById(R.id.co);
        s = findViewById(R.id.sa);
        d = findViewById(R.id.dosa);
        b = findViewById(R.id.b1);
        b.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                int totalamount=0;
                StringBuilder result=new StringBuilder();
                result.append("Selected Items:");
                if(c.isChecked()){
                    result.append("\nCoffee 50Rs");
                    totalamount =50;
                }
                if(s.isChecked()){
                    result.append("\nSandwich 100Rs");
                    totalamount =100;
                }
                if(d.isChecked()){
                    result.append("\nDosa 90Rs");
                    totalamount =90;
                }
                result.append("\nTotal: " totalamount "Rs");
                //Displaying the message on the toast
                Toast.makeText(getApplicationContext(), result.toString(),
                    Toast.LENGTH_LONG).show();
            }
        });
    }
}

```


10.CUSTOM TOAST

ACTIVITY MAIN

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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">

    <Button
        android:id="@ id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button"
        tools:layout_editor_absoluteX="157dp"
        tools:layout_editor_absoluteY="417dp" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

CUSTOM.XML

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:orientation="horizontal"
    android:padding="16dp"
    android:id="@ id/toastroot">

    <ImageView
        android:id="@ id/img"
        app:srcCompat="@drawable/ic_android_black_24dp"
        android:layout_width="wrap_content"
        android:layout_height="55dp"
        android:layout_weight="1" />

    <TextView

        android:id="@ id/t1"
```

```

android:layout_width="wrap_content"

android:layout_height="55dp"

android:text="This is a custom toast"
android:gravity="center"

android:textColor="@android:color/holo_green_dark"

android:textSize="30sp" />

```

```
</LinearLayout>
```

JAVA

11.TOGGLEBUTTON

JAVA

```

public class MainActivity extends AppCompatActivity {

    ToggleButton simpleToggleButton1, simpleToggleButton2;
    Button submit;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        simpleToggleButton1 = (ToggleButton) findViewById(R.id.simpleToggleButton1);
        simpleToggleButton2 = (ToggleButton) findViewById(R.id.simpleToggleButton2);
        submit = (Button) findViewById(R.id.submitButton);
        submit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String status = "ToggleButton1 : " + simpleToggleButton1.getText() + "\n"
                "ToggleButton2 : " + simpleToggleButton2.getText();
                Toast.makeText(getApplicationContext(), status, Toast.LENGTH_SHORT).show();
            }
        });
    }
}

```

XML

Example of Linear layout nested with another linear layout. Any layout can be chosen for the Design:

```
<LinearLayout 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:orientation="vertical"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context=".MainActivity">
```

```
    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center_horizontal"
        android:orientation="horizontal">
```

```
        <ToggleButton
            android:id="@ id/simpleToggleButton1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_gravity="center_horizontal"
            android:checked="false"
            android:drawablePadding="20dp"
            android:drawableRight="@drawable/ic_launcher"
            android:textColor="#000" />
```

```
        <ToggleButton
            android:id="@ id/simpleToggleButton2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_gravity="center_horizontal"
            android:layout_marginLeft="50dp"
            android:checked="true"
            android:drawableLeft="@drawable/ic_launcher"
            android:drawablePadding="20dp"
            android:textColor="#000" />
    </LinearLayout>
```

```

<Button
    android:id="@ id/submitButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center"
    android:layout_marginTop="50dp"
    android:background="#0f0"
    android:padding="10dp"
    android:text="Submit"
    android:textColor="#fff"
    android:textSize="20sp"
    android:textStyle="bold" />
</LinearLayout>

```

12.SWITCH

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    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:id="@ id/b1"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

```

```

    <Switch
        android:id="@ id/s1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="84dp"
        android:layout_marginEnd="184dp"
        android:minHeight="48dp"
        android:text="Switch1"
        android:textOff="OFF"
        android:textOn="ON"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <Switch

```

```
android:id="@ id/s2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="64dp"
android:layout_marginEnd="184dp"
android:checked="true"
android:minHeight="48dp"
android:text="Switch2"
android:textOff="OFF"
android:textOn="ON"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toBottomOf="@ id/s1" />
```

```
<Button
    android:id="@ id/B1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="76dp"
    android:layout_marginEnd="186dp"
    android:text="Submit"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@ id/s2" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

JAVA

```
package com.sindhu.aswitch;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.Switch;
```

```
import android.widget.Toast;
```

```
public class MainActivity extends AppCompatActivity {
    Switch simpleSwitch1, simpleSwitch2;
    Button submit;
```

```

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    simpleSwitch1 = findViewById(R.id.s1);
    simpleSwitch2 = findViewById(R.id.s2);
    submit = findViewById(R.id.B1);

    submit.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            String statusSwitch1, statusSwitch2;
            if (simpleSwitch1.isChecked())
                statusSwitch1 = simpleSwitch1.getTextOn().toString();
            else
                statusSwitch1 = simpleSwitch1.getTextOff().toString();
            if (simpleSwitch2.isChecked())
                statusSwitch2 = simpleSwitch2.getTextOn().toString();
            else
                statusSwitch2 = simpleSwitch2.getTextOff().toString();
            Toast.makeText(getApplicationContext(), "Switch1 : " + statusSwitch1 + "\n" + "Switch2 : "
            + statusSwitch2, Toast.LENGTH_LONG).show(); // display the current state for switch's
        }
    });
}

```

13. SPINNER

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    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">

    <Spinner
        android:id="@+id/spinner"
        android:layout_width="149dp"

```

```

        android:layout_height="40dp"
        android:layout_marginBottom="8dp"

        android:layout_marginEnd="8dp"

        android:layout_marginStart="8dp"

        android:layout_marginTop="8dp"
        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintHorizontal_bias="0.502"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toTopOf="parent"

        app:layout_constraintVertical_bias="0.498"
    />
</androidx.constraintlayout.widget.ConstraintLayout>

```

JAVA

```

package com.example.spinner;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.Spinner;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    String[] country={"USA","UK","France","Russia","Canada"};

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Spinner spinner=findViewById(R.id.spinner);
        ArrayAdapter aa=new ArrayAdapter(this,
        android.R.layout.simple_spinner_dropdown_item,country);
    }
}

```

```

aa.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
spinner.setAdapter(aa);
spinner.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {
    @Override
    public void onItemSelected(AdapterView<?> parent, View view, int position, long id) {
        Toast.makeText(getApplicationContext(), country[position],
Toast.LENGTH_SHORT).show();
    }

    @Override
    public void onNothingSelected(AdapterView<?> parent) {

    }
});
}
}

```

14.INTENTS

```

<Button
    android:id="@ id/implicit"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="148dp"
    android:layout_marginLeft="148dp"
    android:layout_marginTop="152dp"
    android:text="Implicit"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

```

```

<Button
    android:id="@ id/explicit"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="72dp"
    android:layout_marginEnd="172dp"
    android:layout_marginRight="172dp"
    android:text="Explicit"
    app:layout_constraintEnd_toEndOf="parent"

```



```

        app:layout_constraintTop_toBottomOf="@ id/button" />
<TextView
    android:id="@ id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="224dp"
    android:textAppearance="?android:attr/textAppearanceLarge"
    android:text="Second Activity"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.538"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

```

java

```

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Button explicit_btn = findViewById(R.id.explicit);
        Button implicit_btn = findViewById(R.id.implicit);

        //implement Onclick event for Explicit Intent

        explicit_btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {

                Intent intent = new Intent(this, MainActivity2.class);
                startActivity(intent);

            }
        });

        //implement onClick event for Implicit Intent

        implicit_btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {

```

```
        Intent intent = new Intent(Intent.ACTION_VIEW);
        intent.setData(Uri.parse("https://www.google.com"));
        startActivity(intent);
    }
});

}
```

```
public class MainActivity2 extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        Toast.makeText(getApplicationContext(), "We are moved to second Activity",
        Toast.LENGTH_LONG).show();
    }
}
```