Slip1/slip14

Xml.file

*<?***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:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Hello World!"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />

Java file

**public class** MainActivity **extends** AppCompatActivity {  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
  
 Log.d(tag, **"in on create event "**);  
 Toast.makeText(getApplicationContext(), **"Hello TYBCA Student "**, Toast.LENGTH\_SHORT).show();  
 }  
 @override  
 **public void** onStart(){  
 **super**.onStart();  
 Log.d(tag,**"in on start event "**);  
 }  
 @override  
 **public void** onStop(){  
 **super**.onStop();  
 Log.d(tag,**"in on stop event"**);  
 }  
 @override  
 **public void** onResume(){  
 **super**.onResume();  
 Log.d(tag,**"in on resume event"**);  
 }  
 @override  
**public void** onPause(){  
 **super**.onPause();  
 Log.d(tag,**"in on pause event"**);  
 }  
 @override  
 **public void** onDestroy(){  
 **super**.onDestroy;  
 Log.d(tag,**" in on Destroy event"**);  
 }  
}

slip2

1xml.file

<?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">

<EditText

android:id="@+id/numberInput"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Enter a positive number"

android:inputType="number"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

android:layout\_marginTop="100dp"/>

<Button

android:id="@+id/calculateButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Calculate Factorial"

app:layout\_constraintTop\_toBottomOf="@id/numberInput"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

android:layout\_marginTop="24dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>

2.xml file

<?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=".ResultActivity">

<TextView

android:id="@+id/resultTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Result will appear here"

android:textSize="24sp"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

android:layout\_marginTop="100dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>

Java file

import android.content.Intent;

import android.os.Bundle;

import android.widget.Button;

import android.widget.EditText;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

EditText numberInput;

Button calculateButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

numberInput = findViewById(R.id.numberInput);

calculateButton = findViewById(R.id.calculateButton);

calculateButton.setOnClickListener(v -> {

int number = Integer.parseInt(numberInput.getText().toString());

Intent intent = new Intent(MainActivity.this, ResultActivity.class);

intent.putExtra("number", number);

startActivity(intent);

});

}

}

2.java file

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class ResultActivity extends AppCompatActivity {

TextView resultTextView;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_result);

resultTextView = findViewById(R.id.resultTextView);

int number = getIntent().getIntExtra("number", 0);

long factorial = factorial(number);

resultTextView.setText(number + "! = " + factorial);

}

private long factorial(int n) {

if (n >= 1)

return n \* factorial(n - 1);

else

return 1;

}

}

Slip3

<?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/collegeNameTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Your College Name"

android:textSize="24sp"

android:textStyle="bold"

android:layout\_marginTop="32dp"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"/>

<Button

android:id="@+id/changeColorButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Change Color"

app:layout\_constraintTop\_toBottomOf="@id/collegeNameTextView"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

android:layout\_marginTop="24dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>

Java.file

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.Button;

import android.widget.TextView;

import java.util.Random;

public class MainActivity extends AppCompatActivity {

TextView collegeNameTextView;

Button changeColorButton;

Random random = new Random();

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

collegeNameTextView = findViewById(R.id.collegeNameTextView);

changeColorButton = findViewById(R.id.changeColorButton);

changeColorButton.setOnClickListener(v -> {

// Generate random color

int color = android.graphics.Color.argb(255, random.nextInt(256), random.nextInt(256), random.nextInt(256));

collegeNameTextView.setTextColor(color);

});

}

}

Slip4

<?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">

<EditText

android:id="@+id/number1"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Enter number"

android:inputType="numberDecimal|numberSigned"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

android:layout\_marginTop="32dp"/>

<EditText

android:id="@+id/number2"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Enter number"

android:inputType="numberDecimal|numberSigned"

app:layout\_constraintTop\_toBottomOf="@id/number1"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

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

<Button

android:id="@+id/addButton"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:text="Add"

app:layout\_constraintTop\_toBottomOf="@id/number2"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintEnd\_toStartOf="@id/subtractButton"

app:layout\_constraintWidth\_default="spread"/>

<Button

android:id="@+id/subtractButton"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:text="Subtract"

app:layout\_constraintTop\_toBottomOf="@id/number2"

app:layout\_constraintStart\_toEndOf="@id/addButton"

app:layout\_constraintEnd\_toStartOf="@id/multiplyButton"

app:layout\_constraintWidth\_default="spread"/>

<Button

android:id="@+id/multiplyButton"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:text="Multiply"

app:layout\_constraintTop\_toBottomOf="@id/number2"

app:layout\_constraintStart\_toEndOf="@id/subtractButton"

app:layout\_constraintEnd\_toStartOf="@id/divideButton"

app:layout\_constraintWidth\_default="spread"/>

<Button

android:id="@+id/divideButton"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:text="Divide"

app:layout\_constraintTop\_toBottomOf="@id/number2"

app:layout\_constraintStart\_toEndOf="@id/multiplyButton"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintWidth\_default="spread"/>

<TextView

android:id="@+id/result"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:textSize="24sp"

app:layout\_constraintTop\_toBottomOf="@id/addButton"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

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

</androidx.constraintlayout.widget.ConstraintLayout>

Java file

package com.example.simplecalculator;

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 {

EditText number1, number2;

TextView result;

Button addButton, subtractButton, multiplyButton, divideButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

number1 = findViewById(R.id.number1);

number2 = findViewById(R.id.number2);

result = findViewById(R.id.result);

addButton = findViewById(R.id.addButton);

subtractButton = findViewById(R.id.subtractButton);

multiplyButton = findViewById(R.id.multiplyButton);

divideButton = findViewById(R.id.divideButton);

addButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

double num1 = Double.parseDouble(number1.getText().toString());

double num2 = Double.parseDouble(number2.getText().toString());

double sum = num1 + num2;

result.setText("Result: " + sum);

}

});

subtractButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

double num1 = Double.parseDouble(number1.getText().toString());

double num2 = Double.parseDouble(number2.getText().toString());

double difference = num1 - num2;

result.setText("Result: " + difference);

}

});

multiplyButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

double num1 = Double.parseDouble(number1.getText().toString());

double num2 = Double.parseDouble(number2.getText().toString());

double product = num1 \* num2;

result.setText("Result: " + product);

}

});

divideButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

double num1 = Double.parseDouble(number1.getText().toString());

double num2 = Double.parseDouble(number2.getText().toString());

if (num2 != 0) {

double quotient = num1 / num2;

result.setText("Result: " + quotient);

} else {

result.setText("Cannot divide by zero");

}

}

});

}

}

Slip5

<!-- File: src/main/res/layout/activity\_main.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">

<EditText

android:id="@+id/number1EditText"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Enter number 1"

android:inputType="numberDecimal|numberSigned"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

app:layout\_constraintHorizontal\_bias="0.5"

android:layout\_marginTop="100dp"/>

<EditText

android:id="@+id/number2EditText"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Enter number 2"

android:inputType="numberDecimal|numberSigned"

app:layout\_constraintTop\_toBottomOf="@+id/number1EditText"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

app:layout\_constraintHorizontal\_bias="0.5"

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

<Button

android:id="@+id/calculateButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Calculate"

app:layout\_constraintTop\_toBottomOf="@+id/number2EditText"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

app:layout\_constraintHorizontal\_bias="0.5"

android:layout\_marginTop="24dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>

2.xml file

<!-- File: src/main/res/layout/activity\_result.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=".ResultActivity">

<TextView

android:id="@+id/resultsTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textSize="24sp"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

app:layout\_constraintVertical\_bias="0.3"

android:text="Results appear here"

android:layout\_marginTop="100dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>

Java file

// File: src/main/java/your/package/name/MainActivity.java

package com.example.powerandaveragecalculator;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

EditText number1EditText, number2EditText;

Button calculateButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

number1EditText = findViewById(R.id.number1EditText);

number2EditText = findViewById(R.id.number2EditText);

calculateButton = findViewById(R.id.calculateButton);

calculateButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

double num1 = Double.parseDouble(number1EditText.getText().toString());

double num2 = Double.parseDouble(number2EditText.getText().toString());

double power = Math.pow(num1, num2);

double average = (num1 + num2) / 2;

Intent intent = new Intent(MainActivity.this, ResultActivity.class);

intent.putExtra("power", power);

intent.putExtra("average", average);

startActivity(intent);

}

});

}

}

Second java file

// File: src/main/java/your/package/name/ResultActivity.java

package com.example.powerandaveragecalculator;

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class ResultActivity extends AppCompatActivity {

TextView resultsTextView;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_result);

resultsTextView = findViewById(R.id.resultsTextView);

Bundle extras = getIntent().getExtras();

if (extras != null) {

double power = extras.getDouble("power");

double average = extras.getDouble("average");

String resultText = "Power: " + power + "\nAverage: " + average;

resultsTextView.setText(resultText);

}

}

}

Slip 6

<!-- File: src/main/res/layout/activity\_main.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">

<Button

android:id="@+id/sendMessageButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Send Message"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintBottom\_toBottomOf="parent"

android:layout\_marginTop="100dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>

Java file

// File: src/main/java/your/package/name/MainActivity.java

package com.example.messageapp;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Button sendMessageButton = findViewById(R.id.sendMessageButton);

sendMessageButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Create an Intent to start DisplayMessageActivity

Intent intent = new Intent(MainActivity.this, DisplayMessageActivity.class);

// Add the message to the Intent

intent.putExtra("message", "Hello!");

// Start the activity

startActivity(intent);

}

});

}

}

2 java file

// File: src/main/java/your/package/name/DisplayMessageActivity.java

package com.example.messageapp;

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class DisplayMessageActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_display\_message);

TextView messageTextView = findViewById(R.id.messageTextView);

// Retrieve the message from the Intent

String message = getIntent().getStringExtra("message");

// Display the message in the TextView

messageTextView.setText(message);

}

}

Slip7

<!-- File: src/main/res/layout/activity\_main.xml -->

<?xml version="1.0" encoding="utf-8"?>

<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:padding="16dp">

<RadioGroup

android:id="@+id/radioGroup"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content">

<RadioButton

android:id="@+id/radioButtonOption1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Option 1" />

<RadioButton

android:id="@+id/radioButtonOption2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Option 2" />

<RadioButton

android:id="@+id/radioButtonOption3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Option 3" />

</RadioGroup>

<Button

android:id="@+id/showSelectionButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@id/radioGroup"

android:text="Show Selection"

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

</RelativeLayout>

Java file

// File: src/main/java/your/package/name/MainActivity.java

package com.example.radiobuttonapp;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.RadioButton;

import android.widget.RadioGroup;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

RadioGroup radioGroup;

RadioButton radioButtonOption1, radioButtonOption2, radioButtonOption3;

Button showSelectionButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

radioGroup = findViewById(R.id.radioGroup);

radioButtonOption1 = findViewById(R.id.radioButtonOption1);

radioButtonOption2 = findViewById(R.id.radioButtonOption2);

radioButtonOption3 = findViewById(R.id.radioButtonOption3);

showSelectionButton = findViewById(R.id.showSelectionButton);

showSelectionButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

int selectedRadioButtonId = radioGroup.getCheckedRadioButtonId();

if (selectedRadioButtonId != -1) {

RadioButton selectedRadioButton = findViewById(selectedRadioButtonId);

String selectionText = selectedRadioButton.getText().toString();

Toast.makeText(MainActivity.this, "Selected Option: " + selectionText, Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(MainActivity.this, "Please select an option", Toast.LENGTH\_SHORT).show();

}

}

});

}

}

Slip8

<!-- File: src/main/res/layout/activity\_main.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"

android:orientation="vertical"

android:padding="16dp">

<TableLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:stretchColumns="0">

<TableRow>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Username:" />

<EditText

android:id="@+id/usernameEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter username" />

</TableRow>

<TableRow>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Password:" />

<EditText

android:id="@+id/passwordEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:inputType="textPassword"

android:hint="Enter password" />

</TableRow>

</TableLayout>

<Button

android:id="@+id/loginButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Login"

android:layout\_gravity="center"

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

</LinearLayout>

Java file

// File: src/main/java/your/package/name/MainActivity.java

package com.example.loginscreenapp;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

EditText usernameEditText, passwordEditText;

Button loginButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

usernameEditText = findViewById(R.id.usernameEditText);

passwordEditText = findViewById(R.id.passwordEditText);

loginButton = findViewById(R.id.loginButton);

loginButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String username = usernameEditText.getText().toString();

String password = passwordEditText.getText().toString();

// Check if username and password are correct (for demonstration purposes)

if (username.equals("admin") && password.equals("admin123")) {

// Login successful, navigate to the next activity

Intent intent = new Intent(MainActivity.this, WelcomeActivity.class);

startActivity(intent);

} else {

// Login failed, show error message

Toast.makeText(MainActivity.this, "Invalid username or password", Toast.LENGTH\_SHORT).show();

}

}

});

}

}

2 java file

// File: src/main/java/your/package/name/WelcomeActivity.java

package com.example.loginscreenapp;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

public class WelcomeActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_welcome);

}

}

Slip 9

<!-- File: src/main/res/layout/activity\_main.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"

android:orientation="vertical"

android:padding="16dp">

<EditText

android:id="@+id/firstNumberEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter first number"

android:inputType="numberDecimal" />

<EditText

android:id="@+id/secondNumberEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter second number"

android:inputType="numberDecimal" />

<Button

android:id="@+id/submitButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Submit" />

</LinearLayout>

Javafile

// File: src/main/java/your/package/name/MainActivity.java

package com.example.numberinputapp;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

EditText firstNumberEditText, secondNumberEditText;

Button submitButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

firstNumberEditText = findViewById(R.id.firstNumberEditText);

secondNumberEditText = findViewById(R.id.secondNumberEditText);

submitButton = findViewById(R.id.submitButton);

submitButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Get the numbers entered by the user

int firstNumber = Integer.parseInt(firstNumberEditText.getText().toString());

int secondNumber = Integer.parseInt(secondNumberEditText.getText().toString());

// Check if both numbers are greater than 10

if (firstNumber > 10 && secondNumber > 10) {

// If both numbers are greater than 10, show a toast message and clear the EditText fields

Toast.makeText(MainActivity.this, "Both numbers cannot be greater than 10. Please enter new numbers.", Toast.LENGTH\_SHORT).show();

firstNumberEditText.setText("");

secondNumberEditText.setText("");

} else {

// If at least one number is not greater than 10, display the numbers

String message = "First Number: " + firstNumber + "\nSecond Number: " + secondNumber;

Toast.makeText(MainActivity.this, message, Toast.LENGTH\_SHORT).show();

}

}

});

}

}

Slip 10

<?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=".MainActivity">

<Switch

android:id="@+id/switchButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Switch"

android:checked="false"

android:layout\_centerHorizontal="true"

android:layout\_marginBottom="20dp"/>

<ToggleButton

android:id="@+id/toggleButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Toggle"

android:checked="false"

android:layout\_below="@id/switchButton"

android:layout\_centerHorizontal="true"

android:layout\_marginTop="20dp"/>

</RelativeLayout>

Java file

package com.example.switchtogglebuttondemo;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.CompoundButton;

import android.widget.Switch;

import android.widget.Toast;

import android.widget.ToggleButton;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Switch switchButton = findViewById(R.id.switchButton);

ToggleButton toggleButton = findViewById(R.id.toggleButton);

switchButton.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {

@Override

public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {

String state = isChecked ? "ON" : "OFF";

Toast.makeText(getApplicationContext(), "Switch is " + state, Toast.LENGTH\_SHORT).show();

}

});

toggleButton.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {

@Override

public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {

String state = isChecked ? "ON" : "OFF";

Toast.makeText(getApplicationContext(), "Toggle is " + state, Toast.LENGTH\_SHORT).show();

}

});

}

}

Slip 11

<?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=".MainActivity">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Sample Text"

android:textSize="20sp"

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

android:layout\_centerInParent="true"/>

<SeekBar

android:id="@+id/seekBarFontSize"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:max="50"

android:progress="20"

android:layout\_below="@id/textView"

android:layout\_marginTop="20dp"/>

<SeekBar

android:id="@+id/seekBarFontColor"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:max="255"

android:progress="0"

android:layout\_below="@id/seekBarFontSize"

android:layout\_marginTop="20dp"/>

<Spinner

android:id="@+id/fontFamilySpinner"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@id/seekBarFontColor"

android:layout\_centerHorizontal="true"

android:layout\_marginTop="20dp"/>

</RelativeLayout>

Java file

package com.example.fontstylechanger;

import androidx.appcompat.app.AppCompatActivity;

import android.graphics.Color;

import android.graphics.Typeface;

import android.os.Bundle;

import android.widget.AdapterView;

import android.widget.ArrayAdapter;

import android.widget.SeekBar;

import android.widget.Spinner;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

private TextView textView;

private SeekBar seekBarFontSize, seekBarFontColor;

private Spinner fontFamilySpinner;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

textView = findViewById(R.id.textView);

seekBarFontSize = findViewById(R.id.seekBarFontSize);

seekBarFontColor = findViewById(R.id.seekBarFontColor);

fontFamilySpinner = findViewById(R.id.fontFamilySpinner);

// Initialize the spinner with font family options

ArrayAdapter<CharSequence> adapter = ArrayAdapter.createFromResource(this,

R.array.font\_families, android.R.layout.simple\_spinner\_item);

adapter.setDropDownViewResource(android.R.layout.simple\_spinner\_dropdown\_item);

fontFamilySpinner.setAdapter(adapter);

// Set initial font family

textView.setTypeface(Typeface.DEFAULT);

// SeekBar for font size

seekBarFontSize.setOnSeekBarChangeListener(new SeekBar.OnSeekBarChangeListener() {

@Override

public void onProgressChanged(SeekBar seekBar, int progress, boolean fromUser) {

textView.setTextSize(progress);

}

@Override

public void onStartTrackingTouch(SeekBar seekBar) {}

@Override

public void onStopTrackingTouch(SeekBar seekBar) {}

});

// SeekBar for font color

seekBarFontColor.setOnSeekBarChangeListener(new SeekBar.OnSeekBarChangeListener() {

@Override

public void onProgressChanged(SeekBar seekBar, int progress, boolean fromUser) {

textView.setTextColor(Color.rgb(progress, progress, progress));

}

@Override

public void onStartTrackingTouch(SeekBar seekBar) {}

@Override

public void onStopTrackingTouch(SeekBar seekBar) {}

});

// Spinner for font family

fontFamilySpinner.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {

@Override

public void onItemSelected(AdapterView<?> parent, android.view.View view, int position, long id) {

String fontFamily = parent.getItemAtPosition(position).toString();

Typeface typeface = Typeface.create(fontFamily, Typeface.NORMAL);

textView.setTypeface(typeface);

}

@Override

public void onNothingSelected(AdapterView<?> parent) {}

});

}

}

Slip 12

Xml.file

<?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=".MainActivity">

<Button

android:id="@+id/sendButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Send Hi Message"

android:layout\_centerInParent="true"/>

</RelativeLayout>

2 xml.fiile

<?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=".SecondActivity">

<TextView

android:id="@+id/messageTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textSize="24sp"

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

android:layout\_centerInParent="true"/>

</RelativeLayout>

Java file

Java file

package com.example.intentdemo;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Button sendButton = findViewById(R.id.sendButton);

sendButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Create an Intent to start SecondActivity

Intent intent = new Intent(MainActivity.this, SecondActivity.class);

// Add extra data ("Hi" message) to the Intent

intent.putExtra("message", "Hi");

// Start the SecondActivity

startActivity(intent);

}

});

}

}

2nd java file

package com.example.intentdemo;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.TextView;

public class SecondActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_second);

TextView messageTextView = findViewById(R.id.messageTextView);

// Retrieve the "Hi" message from the Intent

String message = getIntent().getStringExtra("message");

// Display the message in the TextView

messageTextView.setText(message);

}

}

Slip 13

<?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=".MainActivity">

<ScrollView

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="vertical">

<TextView

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Item 1"

android:textSize="20sp"

android:padding="8dp"/>

<TextView

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Item 2"

android:textSize="20sp"

android:padding="8dp"/>

<TextView

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Item 3"

android:textSize="20sp"

android:padding="8dp"/>

<!-- Add more TextViews or other views as needed -->

</LinearLayout>

</ScrollView>

</RelativeLayout>

Slip 15

To add a border to an Android layout, you can create a drawable resource file that defines the border shape and then set it as the background of your layout. Here's how you can do it:

1. Create a new drawable resource file named border.xml in the res/drawable directory of your Android project.
2. Add the following code to define the border shape:

xml

<shape xmlns:android="http://schemas.android.com/apk/res/android"

android:shape="rectangle">

<solid android:color="@android:color/transparent" />

<stroke

android:width="2dp"

android:color="@android:color/black" />

<padding

android:left="2dp"

android:top="2dp"

android:right="2dp"

android:bottom="2dp" />

</shape>

This border.xml file defines a rectangle shape with a transparent fill color and a black stroke of 2dp width. It also adds 2dp padding to all sides.

1. Now, in your layout XML file (e.g., activity\_main.xml), set the background of your layout to this border drawable:

xml

<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:background="@drawable/border"

android:padding="16dp"

tools:context=".MainActivity">

<!-- Add your UI elements here -->

</RelativeLayout>

Slip16

Xml.file

<!-- activity\_main.xml -->

<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=".MainActivity">

<EditText

android:id="@+id/editTextName"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Name"

android:layout\_marginBottom="8dp"/>

<EditText

android:id="@+id/editTextSurname"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_below="@id/editTextName"

android:hint="Surname"

android:layout\_marginBottom="8dp"/>

<EditText

android:id="@+id/editTextClass"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_below="@id/editTextSurname"

android:hint="Class"

android:layout\_marginBottom="8dp"/>

<RadioGroup

android:id="@+id/radioGroupGender"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_below="@id/editTextClass"

android:orientation="horizontal"

android:layout\_marginBottom="8dp">

<RadioButton

android:id="@+id/radioButtonMale"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Male"/>

<RadioButton

android:id="@+id/radioButtonFemale"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Female"/>

</RadioGroup>

<EditText

android:id="@+id/editTextHobbies"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_below="@id/radioGroupGender"

android:hint="Hobbies"

android:layout\_marginBottom="8dp"/>

<EditText

android:id="@+id/editTextMarks"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_below="@id/editTextHobbies"

android:hint="Marks"

android:inputType="numberDecimal"

android:layout\_marginBottom="8dp"/>

<Button

android:id="@+id/buttonSubmit"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_below="@id/editTextMarks"

android:text="Submit"/>

</RelativeLayout>

2nd xml.file

<!-- activity\_display.xml -->

<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:padding="16dp"

tools:context=".DisplayActivity">

<TableLayout

Java file

package com.example.studentdetails;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.RadioButton;

import android.widget.RadioGroup;

public class MainActivity extends AppCompatActivity {

private EditText editTextName, editTextSurname, editTextClass, editTextHobbies, editTextMarks;

private RadioGroup radioGroupGender;

private RadioButton radioButtonMale, radioButtonFemale;

private Button buttonSubmit;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

editTextName = findViewById(R.id.editTextName);

editTextSurname = findViewById(R.id.editTextSurname);

editTextClass = findViewById(R.id.editTextClass);

editTextHobbies = findViewById(R.id.editTextHobbies);

editTextMarks = findViewById(R.id.editTextMarks);

radioGroupGender = findViewById(R.id.radioGroupGender);

radioButtonMale = findViewById(R.id.radioButtonMale);

radioButtonFemale = findViewById(R.id.radioButtonFemale);

buttonSubmit = findViewById(R.id.buttonSubmit);

buttonSubmit.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Get the entered student details

String name = editTextName.getText().toString();

String surname = editTextSurname.getText().toString();

String studentClass = editTextClass.getText().toString();

String hobbies = editTextHobbies.getText().toString();

double marks = Double.parseDouble(editTextMarks.getText().toString());

String gender = radioButtonMale.isChecked() ? "Male" : "Female";

// Create an Intent to start the DisplayActivity

Intent intent = new Intent(MainActivity.this, DisplayActivity.class);

// Pass the student details to the DisplayActivity

intent.putExtra("name", name);

intent.putExtra("surname", surname);

intent.putExtra("class", studentClass);

intent.putExtra("gender", gender);

intent.putExtra("hobbies", hobbies);

intent.putExtra("marks", marks);

// Start the DisplayActivity

startActivity(intent);

}

});

}

}

2nd java file

package com.example.studentdetails;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.TableLayout;

import android.widget.TableRow;

import android.widget.TextView;

public class DisplayActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_display);

// Retrieve the student details passed from MainActivity

Bundle extras = getIntent().getExtras();

if (extras != null) {

String name = extras.getString("name");

String surname = extras.getString("surname");

String studentClass = extras.getString("class");

String gender = extras.getString("gender");

String hobbies = extras.getString("hobbies");

double marks = extras.getDouble("marks");

// Display the student details in a table format

TableLayout tableLayout = findViewById(R.id.tableLayout);

addRow(tableLayout, "Name", name);

addRow(tableLayout, "Surname", surname);

addRow(tableLayout, "Class", studentClass);

addRow(tableLayout, "Gender", gender);

addRow(tableLayout, "Hobbies", hobbies);

addRow(tableLayout, "Marks", String.valueOf(marks));

}

}

private void addRow(TableLayout tableLayout, String label, String value) {

TableRow row = new TableRow(this);

TextView textViewLabel = new TextView(this);

textViewLabel.setText(label);

TextView textViewValue = new TextView(this);

textViewValue.setText(value);

row.addView(textViewLabel);

row.addView(textViewValue);

tableLayout.addView(row);

}

}

Slip17

java

import android.content.Intent;

import android.net.Uri;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Button callButton = findViewById(R.id.callButton);

callButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Phone number to call

String phoneNumber = "1234567890";

// Create an Intent with the ACTION\_DIAL action

Intent intent = new Intent(Intent.ACTION\_DIAL);

// Set the data (phone number) for the Intent

intent.setData(Uri.parse("tel:" + phoneNumber));

// Check if there's an app available to handle this Intent

if (intent.resolveActivity(getPackageManager()) != null) {

// Start the Intent

startActivity(intent);

} else {

// Handle case where no app can handle the Intent (e.g., device doesn't have dialer app)

// Display a message or prompt the user to install a dialer app

// For simplicity, let's display a toast message

Toast.makeText(MainActivity.this, "No app available to make a phone call", Toast.LENGTH\_SHORT).show();

}

}

});

}

}

Make sure to add the necessary permission in the AndroidManifest.xml file to make a phone call:

xml

<uses-permission android:name="android.permission.CALL\_PHONE" />

Slip18

<?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=".MainActivity">

<Button

android:id="@+id/showAlertButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Show Alert Dialog"

android:layout\_centerInParent="true"/>

</RelativeLayout>

Java file

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import androidx.appcompat.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Button showAlertButton = findViewById(R.id.showAlertButton);

showAlertButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Create an AlertDialog.Builder instance

AlertDialog.Builder alertDialogBuilder = new AlertDialog.Builder(MainActivity.this);

alertDialogBuilder.setTitle("Alert Dialog");

alertDialogBuilder.setMessage("This is a simple alert dialog.");

alertDialogBuilder.setPositiveButton("OK", null);

// Create and show the AlertDialog

AlertDialog alertDialog = alertDialogBuilder.create();

alertDialog.show();

}

});

}

}

Slip 19

<?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=".MainActivity">

<ImageView

android:id="@+id/bulbImageView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:src="@drawable/bulb\_off"

android:layout\_centerInParent="true"/>

<ToggleButton

android:id="@+id/toggleButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textOn="ON"

android:textOff="OFF"

android:checked="false"

android:layout\_below="@id/bulbImageView"

android:layout\_centerHorizontal="true"

android:layout\_marginTop="20dp"/>

</RelativeLayout>

Java file

import android.os.Bundle;

import android.view.View;

import android.widget.CompoundButton;

import android.widget.ImageView;

import android.widget.ToggleButton;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private ImageView bulbImageView;

private ToggleButton toggleButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

bulbImageView = findViewById(R.id.bulbImageView);

toggleButton = findViewById(R.id.toggleButton);

toggleButton.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {

@Override

public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {

if (isChecked) {

// If toggle button is checked (ON), turn on the bulb

bulbImageView.setImageResource(R.drawable.bulb\_on);

} else {

// If toggle button is not checked (OFF), turn off the bulb

bulbImageView.setImageResource(R.drawable.bulb\_off);

}

}

});

}

}

Slip20

<?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=".MainActivity">

<ImageView

android:id="@+id/imageView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:src="@drawable/image1"

android:layout\_centerInParent="true"/>

<Button

android:id="@+id/changeImageButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Change Image"

android:layout\_below="@id/imageView"

android:layout\_centerHorizontal="true"

android:layout\_marginTop="20dp"/>

</RelativeLayout>

Java file

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.ImageView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private ImageView imageView;

private int currentImage = 1;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

imageView = findViewById(R.id.imageView);

Button changeImageButton = findViewById(R.id.changeImageButton);

changeImageButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Change the image based on the current image index

if (currentImage == 1) {

imageView.setImageResource(R.drawable.image2);

currentImage = 2;

} else {

imageView.setImageResource(R.drawable.image1);

currentImage = 1;

}

}

});

}

}