**SLIP 1 - Q1**

import android.os.Bundle;

import android.util.Log;

import androidx.annotation.NonNull;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private static final String TAG = "MainActivity";

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Log.d(TAG, "onCreate");

}

@Override

protected void onStart() {

super.onStart();

Log.d(TAG, "onStart");

}

@Override

protected void onResume() {

super.onResume();

Log.d(TAG, "onResume");

}

@Override

protected void onPause() {

super.onPause();

Log.d(TAG, "onPause");

}

@Override

protected void onStop() {

super.onStop();

Log.d(TAG, "onStop");

}

@Override

protected void onDestroy() {

super.onDestroy();

Log.d(TAG, "onDestroy");

}

@Override

protected void onSaveInstanceState(@NonNull Bundle outState) {

super.onSaveInstanceState(outState);

Log.d(TAG, "onSaveInstanceState");

}

@Override

protected void onRestoreInstanceState(@NonNull Bundle savedInstanceState) {

super.onRestoreInstanceState(savedInstanceState);

Log.d(TAG, "onRestoreInstanceState");

}

}

**SLIP1-Q2**

<?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/btnDatePicker"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Select Date"

android:layout\_centerInParent="true"/>

</RelativeLayout>

//java file

import android.app.DatePickerDialog;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.DatePicker;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import java.util.Calendar;

public class MainActivity extends AppCompatActivity {

private Button btnDatePicker;

private Calendar calendar;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

btnDatePicker = findViewById(R.id.btnDatePicker);

calendar = Calendar.getInstance();

btnDatePicker.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

showDatePickerDialog();

}

});

}

private void showDatePickerDialog() {

int year = calendar.get(Calendar.YEAR);

int month = calendar.get(Calendar.MONTH);

int day = calendar.get(Calendar.DAY\_OF\_MONTH);

DatePickerDialog datePickerDialog = new DatePickerDialog(this,

new DatePickerDialog.OnDateSetListener() {

@Override

public void onDateSet(DatePicker view, int year, int month, int dayOfMonth) {

// Display the selected date

String selectedDate = dayOfMonth + "/" + (month + 1) + "/" + year;

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

}

}, year, month, day);

datePickerDialog.show();

}

}

**SLIP2-Q1**

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<EditText

android:id="@+id/inputNumberEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter a positive number"/>

<Button

android:id="@+id/calculateButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

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

android:layout\_centerHorizontal="true"

android:text="Calculate"/>

</RelativeLayout>

//XML File 2

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".ResultActivity">

<TextView

android:id="@+id/factorialTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textSize="20sp"

android:layout\_centerInParent="true"/>

</RelativeLayout>

//java file 1

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 inputNumberEditText;

Button calculateButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

inputNumberEditText = findViewById(R.id.inputNumberEditText);

calculateButton = findViewById(R.id.calculateButton);

calculateButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String inputNumberStr = inputNumberEditText.getText().toString();

int inputNumber = Integer.parseInt(inputNumberStr);

if (inputNumber > 0) {

long factorial = calculateFactorial(inputNumber);

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

intent.putExtra("factorial", factorial);

startActivity(intent);

} else {

// Handle invalid input

} }

}); }

private long calculateFactorial(int n) {

long factorial = 1;

for (int i = 1; i <= n; i++) {

factorial \*= i;

}

return factorial;

} }

//java file 2

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class ResultActivity extends AppCompatActivity {

TextView factorialTextView;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_result);

factorialTextView = findViewById(R.id.factorialTextView);

long factorial = getIntent().getLongExtra("factorial", -1);

if (factorial != -1) {

factorialTextView.setText("Factorial: " + factorial);

} else {

// Handle missing or invalid factorial value

} } }

**SLIP2- Q2**

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<Button

android:id="@+id/stopButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Stop Audio"

android:layout\_centerInParent="true"/>

</RelativeLayout>

//2nd XML File

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

package="com.example.backgroundaudio">

<application

android:allowBackup="true"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/AppTheme">

<service android:name=".AudioService" />

<activity android:name=".MainActivity">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</activity>

</application>

</manifest>

//java file 1 (MainActivity.java)

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 stopButton = findViewById(R.id.stopButton);

stopButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

stopService(new Intent(MainActivity.this, AudioService.class));

} }); }

@Override

protected void onResume() {

super.onResume();

// Start the service when the activity is resumed

startService(new Intent(this, AudioService.class));

} }

//java file 2(AudioService.java)

import android.app.Service;

import android.content.Intent;

import android.media.MediaPlayer;

import android.os.IBinder;

import androidx.annotation.Nullable;

public class AudioService extends Service {

private MediaPlayer mediaPlayer;

@Override

public int onStartCommand(Intent intent, int flags, int startId) {

// Start playing audio

mediaPlayer = MediaPlayer.create(this, R.raw.your\_audio\_file); // Replace with your audio file

mediaPlayer.setLooping(true); // Loop the audio

mediaPlayer.start();

return START\_STICKY;

}

@Override

public void onDestroy() {

super.onDestroy();

// Stop playing audio

if (mediaPlayer != null) {

mediaPlayer.stop();

mediaPlayer.release();

} }

@Nullable

@Override

public IBinder onBind(Intent intent) {

return null;

} }

**SLIP3-Q1**

(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">

<TextView

android:id="@+id/collegeNameTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="My College Name"

android:textSize="@dimen/text\_size\_medium"

android:textStyle="@style/NormalTextStyle"

android:layout\_centerInParent="true"/>

<Button

android:id="@+id/changeColorButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Change Color"

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

android:layout\_centerHorizontal="true"

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

</RelativeLayout>

(styles.xml)

<resources>

<style name="NormalTextStyle">

<item name="android:textColor">@color/default\_text\_color</item>

<item name="android:fontFamily">sans-serif</item>

</style>

<style name="LargeTextStyle" parent="NormalTextStyle">

<item name="android:textSize">@dimen/text\_size\_large</item>

<item name="android:textStyle">bold</item>

</style>

</resources>

(dimens.xml)

<resources>

<dimen name="text\_size\_medium">18sp</dimen>

<dimen name="text\_size\_large">24sp</dimen>

</resources>

(colors.xml)

<resources>

<color name="default\_text\_color">#000000</color>

<color name="highlighted\_text\_color">#FF0000</color>

</resources>

//java file

import android.graphics.Color;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

TextView collegeNameTextView;

Button changeColorButton;

@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(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Change color to highlighted\_text\_color

collegeNameTextView.setTextColor(getResources().getColor(R.color.highlighted\_text\_color));

// Change font size and style to LargeTextStyle

collegeNameTextView.setTextAppearance(MainActivity.this, R.style.LargeTextStyle);

}

}); } }

**SLIP3- Q2**

//(activity\_main.xml:)

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:padding="16dp"

tools:context=".MainActivity">

<EditText

android:id="@+id/numberEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:inputType="number"

android:hint="Enter a number"/>

<Button

android:id="@+id/calculateButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Calculate Factorial"

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

android:layout\_centerHorizontal="true"

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

</RelativeLayout>

//java file (MainActivity.java)

import android.app.AlertDialog;

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 numberEditText;

Button calculateButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

numberEditText = findViewById(R.id.numberEditText);

calculateButton = findViewById(R.id.calculateButton);

calculateButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String numberStr = numberEditText.getText().toString();

if (!numberStr.isEmpty()) {

int number = Integer.parseInt(numberStr);

long factorial = calculateFactorial(number);

displayResult(factorial);

} } }); }

private long calculateFactorial(int n) {

long factorial = 1;

for (int i = 1; i <= n; i++) {

factorial \*= i;

}

return factorial;

}

private void displayResult(long factorial) {

AlertDialog.Builder builder = new AlertDialog.Builder(this);

builder.setMessage("Factorial: " + factorial)

.setTitle("Factorial Result")

.setPositiveButton("OK", null)

.show();

} }

**SLIP4 - Q1**

// (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/firstNumberEditText"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Enter first number"

android:inputType="numberDecimal"

app:layout\_constraintEnd\_toStartOf="@+id/operationButtonsGuideline"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<EditText

android:id="@+id/secondNumberEditText"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Enter second number"

android:inputType="numberDecimal"

app:layout\_constraintEnd\_toStartOf="@+id/operationButtonsGuideline"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/firstNumberEditText" />

<androidx.constraintlayout.widget.Guideline

android:id="@+id/operationButtonsGuideline"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:orientation="vertical"

app:layout\_constraintGuide\_percent="0.5" />

<Button

android:id="@+id/additionButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Add"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toEndOf="@+id/operationButtonsGuideline"

app:layout\_constraintTop\_toTopOf="parent" />

<Button

android:id="@+id/subtractionButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Subtract"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toEndOf="@+id/operationButtonsGuideline"

app:layout\_constraintTop\_toBottomOf="@id/additionButton" />

<Button

android:id="@+id/multiplicationButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Multiply"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toEndOf="@+id/operationButtonsGuideline"

app:layout\_constraintTop\_toBottomOf="@id/subtractionButton" />

<Button

android:id="@+id/divisionButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Divide"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toEndOf="@+id/operationButtonsGuideline"

app:layout\_constraintTop\_toBottomOf="@id/multiplicationButton" />

<TextView

android:id="@+id/resultTextView"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:text=""

android:textAlignment="center"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

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

</androidx.constraintlayout.widget.ConstraintLayout>

//java file (MainActivity.java)

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

EditText firstNumberEditText, secondNumberEditText;

Button additionButton, subtractionButton, multiplicationButton, divisionButton;

TextView resultTextView;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

firstNumberEditText = findViewById(R.id.firstNumberEditText);

secondNumberEditText = findViewById(R.id.secondNumberEditText);

additionButton = findViewById(R.id.additionButton);

subtractionButton = findViewById(R.id.subtractionButton);

multiplicationButton = findViewById(R.id.multiplicationButton);

divisionButton = findViewById(R.id.divisionButton);

resultTextView = findViewById(R.id.resultTextView);

additionButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

performOperation('+');

} });

subtractionButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

performOperation('-');

} });

multiplicationButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

performOperation('\*');

} });

divisionButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

performOperation('/');

} }); }

private void performOperation(char operation) {

double firstNumber = Double.parseDouble(firstNumberEditText.getText().toString());

double secondNumber = Double.parseDouble(secondNumberEditText.getText().toString());

double result = 0;

switch (operation) {

case '+':

result = firstNumber + secondNumber;

break;

case '-':

result = firstNumber - secondNumber;

break;

case '\*':

result = firstNumber \* secondNumber;

break;

case '/':

if (secondNumber != 0) {

result = firstNumber / secondNumber;

} else {

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

return;

}

break;

}

resultTextView.setText(String.valueOf(result));

} }

**SLIP4- Q2**

// (activity\_main.xml)

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:padding="16dp"

tools:context=".MainActivity">

<Button

android:id="@+id/sendNotificationButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Send Notification"

android:layout\_centerInParent="true"/>

</RelativeLayout>

// (activity\_display\_notification.xml)

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:padding="16dp"

tools:context=".DisplayNotificationActivity">

<TextView

android:id="@+id/notificationMessageTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text=""

android:textSize="20sp"

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

android:layout\_centerInParent="true"/>

</RelativeLayout>

//java file 1 (MainActivity.java)

import android.app.Notification;

import android.app.NotificationManager;

import android.app.PendingIntent;

import android.content.Context;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import androidx.appcompat.app.AppCompatActivity;

import androidx.core.app.NotificationCompat;

public class MainActivity extends AppCompatActivity {

private static final int NOTIFICATION\_ID = 1;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

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

sendNotificationButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

sendNotification("Notification Message");

} }); }

private void sendNotification(String message) {

// Create an explicit intent for the second activity

Intent intent = new Intent(this, DisplayNotificationActivity.class);

intent.putExtra("notificationMessage", message);

PendingIntent pendingIntent = PendingIntent.getActivity(this, 0, intent, PendingIntent.FLAG\_UPDATE\_CURRENT);

// Build the notification

NotificationCompat.Builder builder = new NotificationCompat.Builder(this, "channel\_id")

.setSmallIcon(R.drawable.ic\_notification)

.setContentTitle("Notification")

.setContentText(message)

.setContentIntent(pendingIntent)

.setAutoCancel(true);

// Show the notification

NotificationManager notificationManager = (NotificationManager) getSystemService(Context.NOTIFICATION\_SERVICE);

notificationManager.notify(NOTIFICATION\_ID, builder.build());

} }

// java file 2 (DisplayNotificationActivity.java)

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class DisplayNotificationActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

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

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

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

notificationMessageTextView.setText(notificationMessage);

} }

// (AndroidManifest.xml)

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

package="com.example.notificationapp">

<uses-permission android:name="android.permission.VIBRATE" />

<uses-permission android:name="android.permission.INTERNET" />

<application

android:allowBackup="true"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/AppTheme">

<activity android:name=".MainActivity">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</activity>

<activity android:name=".DisplayNotificationActivity" />

</application>

</manifest>

**SLIP5 - Q1**

// (activity\_main.xml)

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:padding="16dp"

tools:context=".MainActivity">

<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:layout\_below="@id/firstNumberEditText"

android:hint="Enter second number"

android:inputType="numberDecimal"/>

<Button

android:id="@+id/calculateButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Calculate"

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

android:layout\_centerHorizontal="true"

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

</RelativeLayout>

// (activity\_display\_result.xml)

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:padding="16dp"

tools:context=".DisplayResultActivity">

<TextView

android:id="@+id/powerResultTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Power Result:"

android:textSize="20sp"

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

<TextView

android:id="@+id/averageResultTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

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

android:text="Average Result:"

android:textSize="20sp"

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

</RelativeLayout>

// java file 1 (MainActivity.java)

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 firstNumberEditText, secondNumberEditText;

Button calculateButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

firstNumberEditText = findViewById(R.id.firstNumberEditText);

secondNumberEditText = findViewById(R.id.secondNumberEditText);

calculateButton = findViewById(R.id.calculateButton);

calculateButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

double firstNumber = Double.parseDouble(firstNumberEditText.getText().toString());

double secondNumber = Double.parseDouble(secondNumberEditText.getText().toString());

double powerResult = Math.pow(firstNumber, secondNumber);

double averageResult = (firstNumber + secondNumber) / 2;

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

intent.putExtra("powerResult", powerResult);

intent.putExtra("averageResult", averageResult);

startActivity(intent);

} }); } }

// java file 2 (DisplayResultActivity.java)

import android.content.Intent;

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class DisplayResultActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

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

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

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

Intent intent = getIntent();

double powerResult = intent.getDoubleExtra("powerResult", 0);

double averageResult = intent.getDoubleExtra("averageResult", 0);

powerResultTextView.setText("Power Result: " + powerResult);

averageResultTextView.setText("Average Result: " + averageResult);

} }

SLIP5 -Q2

// Create a layout XML file named custom\_dialog\_layout.xml in your res/layout directory:

<!-- custom\_dialog\_layout.xml -->

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

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="vertical"

android:padding="16dp">

<Button

android:id="@+id/friend1Button"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Friend 1"/>

<Button

android:id="@+id/friend2Button"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Friend 2"/>

<Button

android:id="@+id/friend3Button"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Friend 3"/>

</LinearLayout>

// java file

import android.app.AlertDialog;

import android.content.DialogInterface;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.widget.Button;

import android.widget.Toast;

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 showDialogButton = findViewById(R.id.showDialogButton);

showDialogButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

showCustomDialog();

} }); }

private void showCustomDialog() {

AlertDialog.Builder builder = new AlertDialog.Builder(this);

LayoutInflater inflater = getLayoutInflater();

View dialogView = inflater.inflate(R.layout.custom\_dialog\_layout, null);

builder.setView(dialogView);

Button friend1Button = dialogView.findViewById(R.id.friend1Button);

Button friend2Button = dialogView.findViewById(R.id.friend2Button);

Button friend3Button = dialogView.findViewById(R.id.friend3Button);

final AlertDialog alertDialog = builder.create();

alertDialog.show();

friend1Button.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

greetFriend("Friend 1");

alertDialog.dismiss();

} });

friend2Button.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

greetFriend("Friend 2");

alertDialog.dismiss();

} });

friend3Button.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

greetFriend("Friend 3");

alertDialog.dismiss();

} }); }

private void greetFriend(String friendName) {

Toast.makeText(this, "Hello " + friendName + "!", Toast.LENGTH\_SHORT).show();

} }

**SLIP6 - Q1**

//XML File 1

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:gravity="center">

<Button

android:id="@+id/buttonSendHello"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Send Hello"

android:padding="16dp"/>

</RelativeLayout>

//Java File 1

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 buttonSendHello = findViewById(R.id.buttonSendHello);

buttonSendHello.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Send "Hello!" message to SecondActivity

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

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

startActivity(intent);

} }); } }

//XML file 2

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:gravity="center">

<TextView

android:id="@+id/textViewMessage"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textSize="24sp"

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

</RelativeLayout>

//Java File 2

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class SecondActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_second);

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

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

textViewMessage.setText(message);

} }

//AndroidManifest.XML

<activity android:name=".MainActivity">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</activity>

<activity android:name=".SecondActivity"/>

**SLIP6-Q2**

//XML file

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

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

android:id="@+id/listView"

android:layout\_width="match\_parent"

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

//Java File

import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView;

import android.widget.ArrayAdapter;

import android.widget.ListView;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private ListView listView;

private String[] items = {"Item 1", "Item 2", "Item 3", "Item 4", "Item 5"};

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

listView = findViewById(R.id.listView);

ArrayAdapter<String> adapter = new ArrayAdapter<>(this, android.R.layout.simple\_list\_item\_1, items);

listView.setAdapter(adapter);

listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {

@Override

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

String selectedItem = items[position];

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

} }); } }

//AndroidManifest.XML

<activity android:name=".MainActivity">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</activity>

**SLIP7 -Q1**

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

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<TextView

android:id="@+id/text\_view\_selected\_option"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Selected Option:"

android:layout\_marginTop="16dp"

android:layout\_centerHorizontal="true"/>

<RadioGroup

android:id="@+id/radio\_group"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@id/text\_view\_selected\_option"

android:orientation="vertical">

<RadioButton

android:id="@+id/radio\_button\_option1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Option 1" />

<RadioButton

android:id="@+id/radio\_button\_option2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Option 2" />

<RadioButton

android:id="@+id/radio\_button\_option3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Option 3" />

</RadioGroup>

</RelativeLayout>

//java file

// MainActivity.java

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.RadioButton;

import android.widget.RadioGroup;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

private RadioGroup radioGroup;

private RadioButton radioButtonOption1, radioButtonOption2, radioButtonOption3;

private TextView textViewSelectedOption;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

radioGroup = findViewById(R.id.radio\_group);

radioButtonOption1 = findViewById(R.id.radio\_button\_option1);

radioButtonOption2 = findViewById(R.id.radio\_button\_option2);

radioButtonOption3 = findViewById(R.id.radio\_button\_option3);

textViewSelectedOption = findViewById(R.id.text\_view\_selected\_option);

// Set listener to radio group

radioGroup.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {

@Override

public void onCheckedChanged(RadioGroup group, int checkedId) {

// Check which radio button was clicked

switch (checkedId) {

case R.id.radio\_button\_option1:

textViewSelectedOption.setText("Selected Option: Option 1");

break;

case R.id.radio\_button\_option2:

textViewSelectedOption.setText("Selected Option: Option 2");

break;

case R.id.radio\_button\_option3:

textViewSelectedOption.setText("Selected Option: Option 3");

break;

}

} }); } }

**SLIP7 - Q2**

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

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<Button

android:id="@+id/call\_button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Make Phone Call"

android:layout\_centerInParent="true"/>

</RelativeLayout>

// java file

// MainActivity.java

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.net.Uri;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

public class MainActivity extends AppCompatActivity {

private Button callButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

callButton = findViewById(R.id.call\_button);

callButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Phone number to call

String phoneNumber = "1234567890";

// Create intent with action type as ACTION\_DIAL

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

// Set the data for the intent as the phone number

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

// Verify if there's an app that can handle this intent

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

// Start the activity with the intent

startActivity(intent);

} }

}); } }

**SLIP8 -Q1**

// XML FILE 1

<!-- activity\_login.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:gravity="center"

android:orientation="vertical">

<TableLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:padding="16dp">

<TableRow>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Username:" />

<EditText

android:id="@+id/editTextUsername"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_weight="1"/>

</TableRow>

<TableRow>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Password:" />

<EditText

android:id="@+id/editTextPassword"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:inputType="textPassword"/>

</TableRow>

<TableRow>

<Button

android:id="@+id/buttonLogin"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Login" />

</TableRow>

</TableLayout>

</LinearLayout>

// XML FILE 2

<!-- activity\_next.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:gravity="center"

android:orientation="vertical">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Welcome to Next Activity!"

android:textSize="24sp"

android:textStyle="bold"

android:padding="16dp"/>

</LinearLayout>

//Java file 1

// LoginActivity.java

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 LoginActivity extends AppCompatActivity {

private EditText editTextUsername, editTextPassword;

private Button buttonLogin;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_login);

editTextUsername = findViewById(R.id.editTextUsername);

editTextPassword = findViewById(R.id.editTextPassword);

buttonLogin = findViewById(R.id.buttonLogin);

buttonLogin.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String username = editTextUsername.getText().toString().trim();

String password = editTextPassword.getText().toString().trim();

// Perform simple login validation (for demonstration purposes)

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

// Display toast message for successful login

Toast.makeText(LoginActivity.this, "Login Successful!", Toast.LENGTH\_SHORT).show();

// Navigate to next activity

Intent intent = new Intent(LoginActivity.this, NextActivity.class);

startActivity(intent);

} else {

// Display toast message for failed login

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

} }

}); } }

// Java file 2

// NextActivity.java

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

public class NextActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_next);

} }

//add these activities to your AndroidManifest.xml file:

<activity android:name=".LoginActivity" />

<activity android:name=".NextActivity" />

**SLIP8 - Q2**

//XML File 1

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:gravity="center">

<Button

android:id="@+id/buttonSendEmail"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Send Email"

android:padding="16dp"/>

</RelativeLayout>

//Java File 1

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 {

private static final int REQUEST\_CODE\_EMAIL = 101;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

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

buttonSendEmail.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

sendEmailWithAttachment();

} }); }

private void sendEmailWithAttachment() {

// File URI of the attachment (replace with your file path)

Uri attachmentUri = Uri.parse("file:///sdcard/myfile.pdf");

Intent emailIntent = new Intent(Intent.ACTION\_SEND);

emailIntent.setType("message/rfc822");

emailIntent.putExtra(Intent.EXTRA\_EMAIL, new String[]{"recipient@example.com"});

emailIntent.putExtra(Intent.EXTRA\_SUBJECT, "Subject");

emailIntent.putExtra(Intent.EXTRA\_TEXT, "Body of the email");

emailIntent.putExtra(Intent.EXTRA\_STREAM, attachmentUri);

startActivityForResult(Intent.createChooser(emailIntent, "Send email using..."), REQUEST\_CODE\_EMAIL);

} }

//AndroidManifest.XML

<uses-permission android:name="android.permission.INTERNET" />

<uses-permission android:name="android.permission.READ\_EXTERNAL\_STORAGE" />

**SLIP9 - Q1**

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

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:padding="16dp"

tools:context=".MainActivity">

<EditText

android:id="@+id/editTextNumber1"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter Number 1"

android:inputType="number"/>

<EditText

android:id="@+id/editTextNumber2"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter Number 2"

android:inputType="number"/>

<Button

android:id="@+id/buttonSubmit"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Submit"/>

<TextView

android:id="@+id/textViewResult"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

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

</LinearLayout>

//java file

// MainActivity.java

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText editTextNumber1, editTextNumber2;

private Button buttonSubmit;

private TextView textViewResult;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

editTextNumber1 = findViewById(R.id.editTextNumber1);

editTextNumber2 = findViewById(R.id.editTextNumber2);

buttonSubmit = findViewById(R.id.buttonSubmit);

textViewResult = findViewById(R.id.textViewResult);

buttonSubmit.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

submitNumbers();

}

}); }

private void submitNumbers() {

String number1String = editTextNumber1.getText().toString().trim();

String number2String = editTextNumber2.getText().toString().trim();

if (number1String.isEmpty() || number2String.isEmpty()) {

Toast.makeText(this, "Please enter both numbers", Toast.LENGTH\_SHORT).show();

return;

}

int number1 = Integer.parseInt(number1String);

int number2 = Integer.parseInt(number2String);

if (number1 > 10 && number2 > 10) {

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

return;

}

textViewResult.setText("Number 1: " + number1 + "\nNumber 2: " + number2);

} }

**SLIP9 - Q2**

**SLIP10\_Q1**

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<Switch

android:id="@+id/switchButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Switch Button"

android:layout\_centerHorizontal="true"

android:layout\_marginTop="50dp"/>

<ToggleButton

android:id="@+id/toggleButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Toggle Button"

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

android:layout\_centerHorizontal="true"

android:layout\_marginTop="50dp"/>

</RelativeLayout>

//Java file

package com.example.slip10\_1;

import android.os.Bundle;

import android.widget.CompoundButton;

import android.widget.Switch;

import android.widget.ToggleButton;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

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) {

if (isChecked) {

// Switch is ON

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

} else {

// Switch is OFF

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

} } });

toggleButton.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {

@Override

public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {

if (isChecked) {

// ToggleButton is ON

Toast.makeText(getApplicationContext(), "Toggle Button is ON", Toast.LENGTH\_SHORT).show();

} else {

// ToggleButton is OFF

Toast.makeText(getApplicationContext(), "Toggle Button is OFF", Toast.LENGTH\_SHORT).show();

}

} }); } }

**SLIP10\_Q2**

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<ListView

android:id="@+id/listView"

android:layout\_width="match\_parent"

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

</RelativeLayout>

//Java file

package com.example.slip10\_2;

import android.os.Bundle;

import android.widget.ArrayAdapter;

import android.widget.ListView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private ListView listView;

private String[] fruits = {"Apple", "Banana", "Orange", "Grape", "Mango"};

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

listView = findViewById(R.id.listView);

ArrayAdapter<String> adapter = new ArrayAdapter<>(this, android.R.layout.simple\_list\_item\_1, fruits);

listView.setAdapter(adapter);

} }

**SLIP11\_Q1**

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Sample Text"

android:textSize="18sp"

android:layout\_centerInParent="true"/>

<SeekBar

android:id="@+id/seekBarFontSize"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:max="50"

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

</RelativeLayout>

//Java file

package com.example.slip11\_1;

import android.graphics.Color;

import android.graphics.Typeface;

import android.os.Bundle;

import android.widget.SeekBar;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private TextView textView;

private SeekBar seekBarFontSize;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

textView = findViewById(R.id.textView);

seekBarFontSize = findViewById(R.id.seekBarFontSize);

textView.setTextSize(seekBarFontSize.getProgress());

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) {}

}); } }

**SLIP11\_Q2**

**SLIP12\_Q1**

//XML File 1

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:gravity="center">

<Button

android:id="@+id/buttonSendHi"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Send Hi"

android:padding="16dp"/>

</RelativeLayout>

//Java File 1

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 buttonSendHi = findViewById(R.id.buttonSendHi);

buttonSendHi.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Send Hi message to SecondActivity

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

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

startActivity(intent);

} }); } }

//XML File 2

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:gravity="center">

<TextView

android:id="@+id/textViewMessage"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textSize="24sp"

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

</RelativeLayout>

//Java File 2

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class SecondActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_second);

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

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

textViewMessage.setText(message);

} }

//AndroidManifest.Xml

<activity android:name=".MainActivity">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</activity>

<activity android:name=".SecondActivity"/>

**SLIP12\_Q2**

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<Button

android:id="@+id/buttonPickDate"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Pick Date"

android:layout\_centerHorizontal="true"

android:layout\_marginTop="50dp"/>

<TextView

android:id="@+id/textViewDate"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Selected Date: "

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

android:layout\_centerHorizontal="true"

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

<Button

android:id="@+id/buttonPickTime"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Pick Time"

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

android:layout\_centerHorizontal="true"

android:layout\_marginTop="50dp"/>

<TextView

android:id="@+id/textViewTime"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Selected Time: "

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

android:layout\_centerHorizontal="true"

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

</RelativeLayout>

//Java File

package com.example.slip12\_2;

import android.app.DatePickerDialog;

import android.app.TimePickerDialog;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.DatePicker;

import android.widget.TextView;

import android.widget.TimePicker;

import androidx.appcompat.app.AppCompatActivity;

import java.util.Calendar;

public class MainActivity extends AppCompatActivity {

private TextView textViewDate, textViewTime;

private Button buttonPickDate, buttonPickTime;

private Calendar calendar;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

textViewDate = findViewById(R.id.textViewDate);

textViewTime = findViewById(R.id.textViewTime);

buttonPickDate = findViewById(R.id.buttonPickDate);

buttonPickTime = findViewById(R.id.buttonPickTime);

calendar = Calendar.getInstance();

buttonPickDate.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

showDatePickerDialog();

} });

buttonPickTime.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

showTimePickerDialog();

} }); }

private void showDatePickerDialog() {

DatePickerDialog datePickerDialog = new DatePickerDialog(

this,

new DatePickerDialog.OnDateSetListener() {

@Override

public void onDateSet(DatePicker view, int year, int month, int dayOfMonth) {

calendar.set(Calendar.YEAR, year);

calendar.set(Calendar.MONTH, month);

calendar.set(Calendar.DAY\_OF\_MONTH, dayOfMonth);

updateDateTextView();

} },

calendar.get(Calendar.YEAR),

calendar.get(Calendar.MONTH),

calendar.get(Calendar.DAY\_OF\_MONTH)

);

datePickerDialog.show();

}

private void showTimePickerDialog() {

TimePickerDialog timePickerDialog = new TimePickerDialog(

this,

new TimePickerDialog.OnTimeSetListener() {

@Override

public void onTimeSet(TimePicker view, int hourOfDay, int minute) {

calendar.set(Calendar.HOUR\_OF\_DAY, hourOfDay);

calendar.set(Calendar.MINUTE, minute);

updateTimeTextView();

} },

calendar.get(Calendar.HOUR\_OF\_DAY),

calendar.get(Calendar.MINUTE),

true

);

timePickerDialog.show();

}

private void updateDateTextView() {

String selectedDate = "Selected Date: " + calendar.get(Calendar.YEAR) + "/" +

(calendar.get(Calendar.MONTH) + 1) + "/" + calendar.get(Calendar.DAY\_OF\_MONTH);

textViewDate.setText(selectedDate);

}

private void updateTimeTextView() {

String selectedTime = "Selected Time: " + calendar.get(Calendar.HOUR\_OF\_DAY) + ":" +

String.format("%02d", calendar.get(Calendar.MINUTE));

textViewTime.setText(selectedTime);

} }

**SLIP13\_Q1**

//XML File

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

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

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="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Item 1" />

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Item 2" />

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Item 3" />

</LinearLayout>

</ScrollView>

**SLIP13\_Q2**

**SLIP14\_Q1**

package com.example.slip14\_1;

import android.os.Bundle;

import android.util.Log;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private static final String TAG = "Lifecycle";

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Log.d(TAG, "onCreate");

}

@Override

protected void onStart() {

super.onStart();

Log.d(TAG, "onStart");

}

@Override

protected void onResume() {

super.onResume();

Log.d(TAG, "onResume");

}

@Override

protected void onPause() {

super.onPause();

Log.d(TAG, "onPause");

}

@Override

protected void onStop() {

super.onStop();

Log.d(TAG, "onStop");

}

@Override

protected void onRestart() {

super.onRestart();

Log.d(TAG, "onRestart");

}

@Override

protected void onDestroy() {

super.onDestroy();

Log.d(TAG, "onDestroy");

} }

**SLIP14\_Q2**

//XML File

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

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

android:layout\_width="match\_parent"

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

<Button

android:id="@+id/buttonSendEmail"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_centerInParent="true"

android:text="Send Email" />

</RelativeLayout>

//Java File

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 buttonSendEmail = findViewById(R.id.buttonSendEmail);

buttonSendEmail.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

sendEmail();

} }); }

private void sendEmail() {

Intent emailIntent = new Intent(Intent.ACTION\_SEND);

emailIntent.setType("text/plain");

emailIntent.putExtra(Intent.EXTRA\_EMAIL, new String[]{"recipient@example.com"});

emailIntent.putExtra(Intent.EXTRA\_SUBJECT, "Subject");

emailIntent.putExtra(Intent.EXTRA\_TEXT, "Body of the email");

try {

startActivity(Intent.createChooser(emailIntent, "Send email using..."));

} catch (android.content.ActivityNotFoundException ex) {

// Handle case where no email app is available

// For example, display a toast message

Toast.makeText(this, "There are no email clients installed.", Toast.LENGTH\_SHORT).show();

} } }

//AndroidManifest.XML

<uses-permission android:name="android.permission.INTERNET" />

<uses-permission android:name="android.permission.WRITE\_EXTERNAL\_STORAGE" />

<uses-permission android:name="android.permission.READ\_EXTERNAL\_STORAGE" />

**SLIP15\_Q1**

**SLIP15\_Q2**

**SLIP16\_Q1**

//XML File 1

<!-- activity\_student\_details.xml -->

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical">

<EditText

android:id="@+id/editTextName"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Name" />

<Button

android:id="@+id/buttonSubmit"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Submit" />

</LinearLayout>

//Java File 1

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 StudentDetailsActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_student\_details);

EditText editTextName = findViewById(R.id.editTextName);

// Similar EditText fields for other details: Surname, Class, Gender, Hobbies, Marks

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

buttonSubmit.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

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

// Get other details in a similar way

Intent intent = new Intent(StudentDetailsActivity.this, DisplayDetailsActivity.class);

intent.putExtra("name", name);

// Put other details as extras in the intent

startActivity(intent);

} }); } }

//XML File 2

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical">

<TableLayout

android:id="@+id/tableLayout"

android:layout\_width="match\_parent"

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

</TableLayout>

</LinearLayout>

//Java File 2

import android.os.Bundle;

import android.widget.TableLayout;

import android.widget.TableRow;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class DisplayDetailsActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

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

Bundle extras = getIntent().getExtras();

if (extras != null) {

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

// Get other details from extras

displayDetails(name /\*, Other details\*/);

} }

private void displayDetails(String name /\*, Other details\*/) {

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

// Create a new row

TableRow row = new TableRow(this);

// Create TextViews for each detail

TextView textViewName = new TextView(this);

textViewName.setText(name);

// Add TextViews to the row

row.addView(textViewName);

tableLayout.addView(row);

} }

//AndroidManifest.XML

<activity android:name=".StudentDetailsActivity">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</activity>

<activity android:name=".DisplayDetailsActivity"/>

**SLIP16\_Q2**

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

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

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<Button

android:id="@+id/buttonPickTime"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Pick Time"

android:layout\_centerHorizontal="true"

android:layout\_marginTop="50dp"/>

<TextView

android:id="@+id/textViewTime"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Selected Time: "

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

android:layout\_centerHorizontal="true"

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

</RelativeLayout>

//Java File

package com.example.slip16\_2;

import android.app.TimePickerDialog;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.TextView;

import android.widget.TimePicker;

import androidx.appcompat.app.AppCompatActivity;

import java.util.Calendar;

public class MainActivity extends AppCompatActivity {

private TextView textViewTime;

private Button buttonPickTime;

private Calendar calendar;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

textViewTime = findViewById(R.id.textViewTime);

buttonPickTime = findViewById(R.id.buttonPickTime);

calendar = Calendar.getInstance();

buttonPickTime.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

showTimePickerDialog();

} }); }

private void showTimePickerDialog() {

int hour = calendar.get(Calendar.HOUR\_OF\_DAY);

int minute = calendar.get(Calendar.MINUTE);

TimePickerDialog timePickerDialog = new TimePickerDialog(

this,

new TimePickerDialog.OnTimeSetListener() {

@Override

public void onTimeSet(TimePicker view, int hourOfDay, int minute) {

calendar.set(Calendar.HOUR\_OF\_DAY, hourOfDay);

calendar.set(Calendar.MINUTE, minute);

updateTimeTextView();

} },

hour,

minute,

true

);

timePickerDialog.show();

}

private void updateTimeTextView() {

String selectedTime = "Selected Time: " + calendar.get(Calendar.HOUR\_OF\_DAY) + ":" +

String.format("%02d", calendar.get(Calendar.MINUTE));

textViewTime.setText(selectedTime);

} }

**SLIP17\_Q1**

**SLIP17\_Q2**

**SLIP18\_Q1**

//XML File 1

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

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

android:layout\_width="match\_parent"

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

<Button

android:id="@+id/buttonShowNotification"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_centerInParent="true"

android:text="Show Notification" />

</RelativeLayout>

//Java File

import android.app.Notification;

import android.app.NotificationChannel;

import android.app.NotificationManager;

import android.content.Context;

import android.graphics.Color;

import android.os.Build;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import androidx.appcompat.app.AppCompatActivity;

import androidx.core.app.NotificationCompat;

public class MainActivity extends AppCompatActivity {

private static final String CHANNEL\_ID = "MyNotificationChannel";

private static final int NOTIFICATION\_ID = 1;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

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

buttonShowNotification.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

showNotification();

} });

createNotificationChannel();

}

private void createNotificationChannel() {

if (Build.VERSION.SDK\_INT >= Build.VERSION\_CODES.O) {

CharSequence name = "My Notification Channel";

String description = "This is my notification channel";

int importance = NotificationManager.IMPORTANCE\_DEFAULT;

NotificationChannel channel = new NotificationChannel(CHANNEL\_ID, name, importance);

channel.setDescription(description);

channel.enableLights(true);

channel.setLightColor(Color.GREEN);

channel.enableVibration(true);

NotificationManager notificationManager = getSystemService(NotificationManager.class);

notificationManager.createNotificationChannel(channel);

} }

private void showNotification() {

NotificationCompat.Builder builder = new NotificationCompat.Builder(this, CHANNEL\_ID)

.setSmallIcon(R.drawable.ic\_notification)

.setContentTitle("Simple Notification")

.setContentText("This is a simple notification")

.setPriority(NotificationCompat.PRIORITY\_DEFAULT);

NotificationManager notificationManager = (NotificationManager) getSystemService(Context.NOTIFICATION\_SERVICE);

notificationManager.notify(NOTIFICATION\_ID, builder.build());

} }

**SLIP18\_Q2**

//XML File

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

android:layout\_width="match\_parent"

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

<Button

android:id="@+id/buttonShowDialog"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_centerInParent="true"

android:text="Show Alert Dialog" />

</RelativeLayout>

//Java file

import android.app.AlertDialog;

import android.content.DialogInterface;

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 buttonShowDialog = findViewById(R.id.buttonShowDialog);

buttonShowDialog.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

showAlert();

} }); }

private void showAlert() {

AlertDialog.Builder builder = new AlertDialog.Builder(this);

builder.setTitle("Alert");

builder.setMessage("This is a simple alert message.");

builder.setPositiveButton("OK", new DialogInterface.OnClickListener() {

@Override

public void onClick(DialogInterface dialog, int which) {

// Do something when OK button is clicked

dialog.dismiss(); // Dismiss the dialog

} });

AlertDialog alertDialog = builder.create();

alertDialog.show();

} }

**SLIP19\_Q1**

//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">

<ToggleButton

android:id="@+id/toggleBtn"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="150dp"

android:layout\_marginTop="300dp"

android:layout\_marginEnd="150dp"

android:layout\_marginBottom="300dp"

android:textOff="off"

android:textOn="on"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

//Java File

package com.example.slip19\_1;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.CompoundButton;

import android.widget.ToggleButton;

public class MainActivity extends AppCompatActivity {

private ToggleButton toggleBtn;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

toggleBtn=findViewById(R.id.toggleBtn);

toggleBtn.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {

@Override

public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {

if(isChecked){

getWindow().getDecorView().setBackgroundColor(getResources().getColor(android.R.color.holo\_blue\_light));

}else {

getWindow().getDecorView().setBackgroundColor(getResources().getColor(android.R.color.white));

}

} }); } }

**SLIP19\_Q2**

//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">

<EditText

android:id="@+id/phoneNumberEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Phone Number"

android:inputType="phone" />

<EditText

android:id="@+id/messageEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

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

android:layout\_marginTop="16dp"

android:hint="Message" />

<Button

android:id="@+id/sendButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

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

android:layout\_centerHorizontal="true"

android:text="Send" />

<TextView

android:id="@+id/deliveryReportTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

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

android:layout\_marginTop="16dp"

android:text="Delivery Report"

android:textSize="18sp" />

</RelativeLayout>

//AndroidManifest.XML

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

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

xmlns:tools="http://schemas.android.com/tools"

package="com.example.slip19\_2">

<uses-permission android:name="android.permission.SEND\_SMS" />

<uses-permission android:name="android.permission.RECEIVE\_SMS" />

<uses-permission android:name="android.permission.READ\_SMS" />

<application

android:allowBackup="true"

android:dataExtractionRules="@xml/data\_extraction\_rules"

android:fullBackupContent="@xml/backup\_rules"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/Theme.Slip19\_2"

tools:targetApi="31">

<activity

android:name=".MainActivity"

android:exported="true">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</activity>

</application>

</manifest>

//Java File

import android.Manifest;

import android.app.PendingIntent;

import android.content.BroadcastReceiver;

import android.content.Context;

import android.content.Intent;

import android.content.IntentFilter;

import android.content.pm.PackageManager;

import android.os.Bundle;

import android.telephony.SmsManager;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import androidx.core.app.ActivityCompat;

import androidx.core.content.ContextCompat;

public class MainActivity extends AppCompatActivity {

private static final int PERMISSION\_REQUEST\_CODE = 1;

private EditText phoneNumberEditText;

private EditText messageEditText;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

phoneNumberEditText = findViewById(R.id.editTextPhoneNumber);

messageEditText = findViewById(R.id.editTextMessage);

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

sendButton.setOnClickListener(v -> {

if (checkPermission()) {

sendMessage();

} else {

requestPermission();

} }); }

private boolean checkPermission() {

return ContextCompat.checkSelfPermission(this, Manifest.permission.SEND\_SMS) == PackageManager.PERMISSION\_GRANTED;

}

private void requestPermission() {

ActivityCompat.requestPermissions(this, new String[]{Manifest.permission.SEND\_SMS}, PERMISSION\_REQUEST\_CODE);

}

private void sendMessage() {

String phoneNumber = phoneNumberEditText.getText().toString();

String message = messageEditText.getText().toString();

if (!phoneNumber.isEmpty() && !message.isEmpty()) {

SmsManager smsManager = SmsManager.getDefault();

Intent sentIntent = new Intent("SMS\_SENT");

PendingIntent sentPendingIntent = PendingIntent.getBroadcast(this, 0, sentIntent, 0);

registerReceiver(new BroadcastReceiver() {

@Override

public void onReceive(Context context, Intent intent) {

int resultCode = getResultCode();

if (resultCode == RESULT\_OK) {

Toast.makeText(context, "SMS sent", Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(context, "SMS sending failed", Toast.LENGTH\_SHORT).show();

}

}

}, new IntentFilter("SMS\_SENT"));

smsManager.sendTextMessage(phoneNumber, null, message, sentPendingIntent, null);

} else {

Toast.makeText(this, "Please enter phone number and message", Toast.LENGTH\_SHORT).show();

}

}

@Override

public void onRequestPermissionsResult(int requestCode, String[] permissions, int[] grantResults) {

super.onRequestPermissionsResult(requestCode, permissions, grantResults);

if (requestCode == PERMISSION\_REQUEST\_CODE) {

if (grantResults.length > 0 && grantResults[0] == PackageManager.PERMISSION\_GRANTED) {

sendMessage();

} else {

Toast.makeText(this, "Permission denied", Toast.LENGTH\_SHORT).show();

} } } }

**SLIP20\_Q1**

//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"

tools:context=".MainActivity">

<ImageView

android:id="@+id/imageView"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:src="@drawable/default\_image" <!-- Replace 'default\_image' with the default image you want to display -->

android:scaleType="centerCrop"/>

<Button

android:id="@+id/changeImageButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Change Image"

android:layout\_centerInParent="true"/>

</RelativeLayout>

//Java File

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.ImageView;

public class MainActivity extends AppCompatActivity {

ImageView imageView;

Button changeImageButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

imageView = findViewById(R.id.imageView);

changeImageButton = findViewById(R.id.changeImageButton);

changeImageButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Change the image resource when the button is clicked

imageView.setImageResource(R.drawable.new\_image); // Replace 'new\_image' with the name of your image file in the drawable folder

}

}); } }

**SLIP20\_Q2**

//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"

tools:context=".MainActivity">

<ListView

android:id="@+id/listView"

android:layout\_width="match\_parent"

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

</RelativeLayout>

//Java File

import android.os.Bundle;

import android.widget.ArrayAdapter;

import android.widget.ListView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

ListView listView;

ArrayAdapter<String> adapter;

String[] countries = {"Afghanistan", "Albania", "Algeria", "Andorra", "Angola", "Antigua and Barbuda", "Argentina", "Armenia", "Australia", "Austria", "Azerbaijan", "Bahamas", "Bahrain", "Yemen", "Zambia", "Zimbabwe"};

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

listView = findViewById(R.id.listView);

// Create ArrayAdapter

adapter = new ArrayAdapter<>(this, android.R.layout.simple\_list\_item\_1, countries);

// Set the adapter to the ListView

listView.setAdapter(adapter);

} }