**AP SLIP SOLUTION**

**SLIP 1:**

QUE1=> lifecycle

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:id="@+id/main"  
 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\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

package com.example.lifecycle;  
  
import androidx.appcompat.app.AppCompatActivity;  
import android.os.Bundle;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 showToast("onCreate");  
 }  
  
 @Override  
 protected void onStart() {  
 super.onStart();  
 showToast("onStart");  
 }  
  
 @Override  
 protected void onResume() {  
 super.onResume();  
 showToast("onResume");  
 }  
  
 @Override  
 protected void onPause() {  
 super.onPause();  
 showToast("onPause");  
 }  
  
 @Override  
 protected void onStop() {  
 super.onStop();  
 showToast("onStop");  
 }  
  
 @Override  
 protected void onDestroy() {  
 super.onDestroy();  
 showToast("onDestroy");  
 }  
  
 @Override  
 protected void onRestart() {  
 super.onRestart();  
 showToast("onRestart");  
 }  
  
 private void showToast(String message) {  
 Toast.*makeText*(this, message, Toast.*LENGTH\_SHORT*).show();  
 }  
}

QUE2=>async task

<?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/start\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Start AsyncTask"  
 android:layout\_centerInParent="true"/>  
  
</RelativeLayout>

package com.example.slip1\_q2;  
  
import android.app.ProgressDialog;  
import android.content.Context;  
import android.os.AsyncTask;  
import android.os.Bundle;  
import androidx.appcompat.app.AppCompatActivity;  
import android.view.View;  
import android.widget.Button;  
  
public class MainActivity extends AppCompatActivity {  
  
 private Button startButton;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 startButton = findViewById(R.id.*start\_button*);  
 startButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 // Execute AsyncTask when the button is clicked  
 new MyAsyncTask(MainActivity.this).execute();  
 }  
 });  
 }  
  
 // AsyncTask to perform background operation  
 private static class MyAsyncTask extends AsyncTask<Void, Integer, Void> {  
  
 private ProgressDialog progressDialog;  
 private Context context;  
  
 MyAsyncTask(Context context) {  
 this.context = context;  
 }  
  
 @Override  
 protected void onPreExecute() {  
 super.onPreExecute();  
 // Show progress dialog before starting background operation  
 progressDialog = new ProgressDialog(context);  
 progressDialog.setMessage("Loading...");  
 progressDialog.setProgressStyle(ProgressDialog.*STYLE\_HORIZONTAL*);  
 progressDialog.setProgress(0);  
 progressDialog.setMax(100);  
 progressDialog.show();  
 }  
  
 @Override  
 protected Void doInBackground(Void... params) {  
 // Simulate a time-consuming task  
 for (int i = 0; i < 100; i++) {  
 // Update progress  
 publishProgress(i);  
 // Delay execution to simulate a time-consuming task  
 try {  
 Thread.*sleep*(100);  
 } catch (InterruptedException e) {  
 e.printStackTrace();  
 }  
 }  
 return null;  
 }  
  
 @Override  
 protected void onProgressUpdate(Integer... values) {  
 super.onProgressUpdate(values);  
 // Update progress dialog with current progress  
 progressDialog.setProgress(values[0]);  
 }  
  
 @Override  
 protected void onPostExecute(Void result) {  
 super.onPostExecute(result);  
 // Dismiss progress dialog after background operation is completed  
 progressDialog.dismiss();  
 }  
 }  
}

QUE2 =>datapicker

<?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/show\_date\_picker\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Show DatePickerDialog"  
 android:layout\_centerInParent="true"/>  
  
 <TextView  
 android:id="@+id/date\_text\_view"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/show\_date\_picker\_button"  
 android:layout\_marginTop="16dp"  
 android:layout\_centerHorizontal="true"  
 android:text="Selected Date:"  
 android:textSize="18sp"  
 android:textStyle="bold"/>  
  
</RelativeLayout>

package com.example.slip1\_q2b;  
  
import android.app.DatePickerDialog;  
import android.os.Bundle;  
import androidx.appcompat.app.AppCompatActivity;  
import android.view.View;  
import android.widget.Button;  
import android.widget.DatePicker;  
import android.widget.TextView;  
  
import java.util.Calendar;  
  
public class MainActivity extends AppCompatActivity {  
  
 private TextView dateTextView;  
 private Button showDatePickerButton;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 dateTextView = findViewById(R.id.*date\_text\_view*);  
 showDatePickerButton = findViewById(R.id.*show\_date\_picker\_button*);  
  
 // Set click listener for the button to show the DatePickerDialog  
 showDatePickerButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 showDatePickerDialog();  
 }  
 });  
 }  
  
 private void showDatePickerDialog() {  
 // Get current date  
 Calendar calendar = Calendar.*getInstance*();  
 int year = calendar.get(Calendar.*YEAR*);  
 int month = calendar.get(Calendar.*MONTH*);  
 int dayOfMonth = calendar.get(Calendar.*DAY\_OF\_MONTH*);  
  
 // Create DatePickerDialog and set listener  
 DatePickerDialog datePickerDialog = new DatePickerDialog(  
 this,  
 new DatePickerDialog.OnDateSetListener() {  
 @Override  
 public void onDateSet(DatePicker view, int year, int month, int dayOfMonth) {  
 // Display selected date in TextView  
 String selectedDate = dayOfMonth + "/" + (month + 1) + "/" + year;  
 dateTextView.setText("Selected Date: " + selectedDate);  
 }  
 },  
 year, month, dayOfMonth);  
  
 // Show the DatePickerDialog  
 datePickerDialog.show();  
 }  
}

SLIP 2:

QUE1=>factorial value

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">  
  
 <EditText  
 android:id="@+id/number\_edit\_text"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:hint="Enter a positive number"  
 android:layout\_centerInParent="true"/>  
  
 <Button  
 android:id="@+id/submit\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Submit"  
 android:layout\_below="@id/number\_edit\_text"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="16dp"/>  
  
</RelativeLayout>

Activity\_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"  
 tools:context=".MainActivity">  
  
 <TextView  
 android:id="@+id/result\_text\_view"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Factorial Value:"  
 android:textSize="18sp"  
 android:textStyle="bold"  
 android:layout\_centerInParent="true"/>  
  
</RelativeLayout>

MainActivity.java

package com.example.slip2\_q1;  
  
import android.content.Intent;  
import android.os.Bundle;  
import androidx.appcompat.app.AppCompatActivity;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
  
public class MainActivity extends AppCompatActivity {  
  
 private EditText numberEditText;  
 private Button submitButton;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 numberEditText = findViewById(R.id.*number\_edit\_text*);  
 submitButton = findViewById(R.id.*submit\_button*);  
  
 submitButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 // Read the number input by the user  
 String numberStr = numberEditText.getText().toString().trim();  
  
 if (!numberStr.isEmpty()) {  
 // Convert the string to integer  
 int number = Integer.*parseInt*(numberStr);  
  
 // Pass the number to ResultActivity  
 Intent intent = new Intent(MainActivity.this, ResultActivity.class);  
 intent.putExtra("number", number);  
 startActivity(intent);  
 }  
 }  
 });  
 }  
}

ResultActivity.java

package com.example.slip2\_q1;  
  
import android.os.Bundle;  
import androidx.appcompat.app.AppCompatActivity;  
import android.widget.TextView;  
  
public class ResultActivity extends AppCompatActivity {  
  
 private TextView resultTextView;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_result*);  
  
 resultTextView = findViewById(R.id.*result\_text\_view*);  
  
 // Get the number passed from MainActivity  
 int number = getIntent().getIntExtra("number", 0);  
  
 // Calculate factorial value  
 long factorial = calculateFactorial(number);  
  
 // Display the factorial value  
 resultTextView.setText("Factorial Value: " + factorial);  
 }  
  
 // Method to calculate factorial recursively  
 private long calculateFactorial(int n) {  
 if (n == 0 || n == 1) {  
 return 1;  
 } else {  
 return n \* calculateFactorial(n - 1);  
 }  
 }  
}

Add following snippet in manifest.xml

<activity  
 android:name=".ResultActivity"  
 android:exported="true">  
</activity>

QUE2=> audio

QUE2=> google map

SLIP 3:

QUE1=>change font size and style

<?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/college\_name\_text\_view"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="MIT ACSC, PUNE"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 android:textColor="@color/white"  
 android:layout\_centerInParent="true"/>  
  
 <Button  
 android:id="@+id/change\_color\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Change Color"  
 android:layout\_below="@id/college\_name\_text\_view"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginTop="16dp"/>  
  
 <Button  
 android:id="@+id/change\_size\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Change Size"  
 android:layout\_below="@id/college\_name\_text\_view"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="16dp"/>  
  
 <Button  
 android:id="@+id/change\_style\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Change Style"  
 android:layout\_below="@id/college\_name\_text\_view"  
 android:layout\_alignParentEnd="true"  
 android:layout\_marginTop="16dp"/>  
  
</RelativeLayout>

package com.example.slip3\_q1;  
  
import android.graphics.Color;  
import android.graphics.Typeface;  
import android.os.Bundle;  
import androidx.appcompat.app.AppCompatActivity;  
import android.view.View;  
import android.widget.Button;  
import android.widget.TextView;  
  
public class MainActivity extends AppCompatActivity {  
  
 private TextView collegeNameTextView;  
 private Button changeColorButton;  
 private Button changeSizeButton;  
 private Button changeStyleButton;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 collegeNameTextView = findViewById(R.id.*college\_name\_text\_view*);  
 changeColorButton = findViewById(R.id.*change\_color\_button*);  
 changeSizeButton = findViewById(R.id.*change\_size\_button*);  
 changeStyleButton = findViewById(R.id.*change\_style\_button*);  
  
 // Set OnClickListener for Change Color button  
 changeColorButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 // Change text color to red  
 collegeNameTextView.setTextColor(Color.*RED*);  
 }  
 });  
  
 // Set OnClickListener for Change Size button  
 changeSizeButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 // Change font size to 28sp  
 collegeNameTextView.setTextSize(28);  
 }  
 });  
  
 // Set OnClickListener for Change Style button  
 changeStyleButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 // Change font style to italic  
 collegeNameTextView.setTypeface(null, Typeface.*ITALIC*);  
 }  
 });  
 }  
}

QUE2=>factorial no.

<?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">  
  
 <EditText  
 android:id="@+id/number\_edit\_text"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Enter a number"  
 android:inputType="number"  
 android:layout\_margin="16dp"/>  
  
 <Button  
 android:id="@+id/calculate\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Calculate Factorial"  
 android:layout\_below="@id/number\_edit\_text"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="16dp"/>  
  
</RelativeLayout>

package com.example.slip3\_q2a;  
  
import android.app.AlertDialog;  
import android.content.DialogInterface;  
import android.os.Bundle;  
import androidx.appcompat.app.AppCompatActivity;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
  
public class MainActivity extends AppCompatActivity {  
  
 private EditText numberEditText;  
 private Button calculateButton;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 numberEditText = findViewById(R.id.*number\_edit\_text*);  
 calculateButton = findViewById(R.id.*calculate\_button*);  
  
 calculateButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 // Get the number entered by the user  
 int number = Integer.*parseInt*(numberEditText.getText().toString());  
  
 // Calculate the factorial  
 long factorial = calculateFactorial(number);  
  
 // Display the result in an alert dialog  
 displayResult(factorial);  
 }  
 });  
 }  
  
 // Method to calculate factorial  
 private long calculateFactorial(int n) {  
 long factorial = 1;  
 for (int i = 1; i <= n; i++) {  
 factorial \*= i;  
 }  
 return factorial;  
 }  
  
 // Method to display the result in an alert dialog  
 private void displayResult(long factorial) {  
 AlertDialog.Builder builder = new AlertDialog.Builder(this);  
 builder.setTitle("Factorial Result");  
 builder.setMessage("The factorial of the number is: " + factorial);  
 builder.setPositiveButton("OK", new DialogInterface.OnClickListener() {  
 @Override  
 public void onClick(DialogInterface dialog, int which) {  
 // Close the dialog  
 dialog.dismiss();  
 }  
 });  
 builder.show();  
 }  
}

QUE2=>student details

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">  
  
 <EditText  
 android:id="@+id/nameEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Name"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/surnameEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Surname"  
 android:layout\_below="@id/nameEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/classEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Class"  
 android:layout\_below="@id/surnameEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/genderEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Gender"  
 android:layout\_below="@id/classEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/hobbiesEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Hobbies"  
 android:layout\_below="@id/genderEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/marksEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Marks"  
 android:layout\_below="@id/hobbiesEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <Button  
 android:id="@+id/submitBtn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Submit"  
 android:layout\_below="@id/marksEditText"  
 android:layout\_centerHorizontal="true"/>  
</RelativeLayout>

Display\_activity.xml

<?xml version="1.0" encoding="utf-8"?>  
<ScrollView xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
 <TableLayout  
 android:id="@+id/detailsTable"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:padding="16dp">  
  
 </TableLayout>  
</ScrollView>

MainActivity.java

package com.example.slip16\_q1;  
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 nameEditText, surnameEditText, classEditText, genderEditText, hobbiesEditText, marksEditText;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 nameEditText = findViewById(R.id.*nameEditText*);  
 surnameEditText = findViewById(R.id.*surnameEditText*);  
 classEditText = findViewById(R.id.*classEditText*);  
 genderEditText = findViewById(R.id.*genderEditText*);  
 hobbiesEditText = findViewById(R.id.*hobbiesEditText*);  
 marksEditText = findViewById(R.id.*marksEditText*);  
  
 Button submitBtn = findViewById(R.id.*submitBtn*);  
 submitBtn.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String name = nameEditText.getText().toString();  
 String surname = surnameEditText.getText().toString();  
 String studentClass = classEditText.getText().toString();  
 String gender = genderEditText.getText().toString();  
 String hobbies = hobbiesEditText.getText().toString();  
 String marks = marksEditText.getText().toString();  
  
 Intent intent = new Intent(MainActivity.this, DisplayActivity.class);  
 intent.putExtra("NAME", name);  
 intent.putExtra("SURNAME", surname);  
 intent.putExtra("CLASS", studentClass);  
 intent.putExtra("GENDER", gender);  
 intent.putExtra("HOBBIES", hobbies);  
 intent.putExtra("MARKS", marks);  
 startActivity(intent);  
 }  
 });  
 }  
}

DisplayActivity.java

package com.example.slip16\_q1;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.TableLayout;  
import android.widget.TableRow;  
import android.widget.TextView;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class DisplayActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_display*);  
  
 TableLayout detailsTable = findViewById(R.id.*detailsTable*);  
  
 Intent intent = getIntent();  
 String name = intent.getStringExtra("NAME");  
 String surname = intent.getStringExtra("SURNAME");  
 String studentClass = intent.getStringExtra("CLASS");  
 String gender = intent.getStringExtra("GENDER");  
 String hobbies = intent.getStringExtra("HOBBIES");  
 String marks = intent.getStringExtra("MARKS");  
  
 // Create table row for each detail  
 addRowToTable(detailsTable, "Name", name);  
 addRowToTable(detailsTable, "Surname", surname);  
 addRowToTable(detailsTable, "Class", studentClass);  
 addRowToTable(detailsTable, "Gender", gender);  
 addRowToTable(detailsTable, "Hobbies", hobbies);  
 addRowToTable(detailsTable, "Marks", marks);  
 }  
  
 private void addRowToTable(TableLayout table, String label, String value) {  
 TableRow row = new TableRow(this);  
 TextView labelTextView = new TextView(this);  
 labelTextView.setText(label);  
 TextView valueTextView = new TextView(this);  
 valueTextView.setText(value);  
 row.addView(labelTextView);  
 row.addView(valueTextView);  
 table.addView(row);  
 }  
}

SLIP4:

QUE1=>arithmetic operation

<?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/first\_number\_edit\_text"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:hint="Enter first number"  
 android:inputType="number"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 android:layout\_margin="16dp"/>  
  
 <EditText  
 android:id="@+id/second\_number\_edit\_text"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:hint="Enter second number"  
 android:inputType="number"  
 app:layout\_constraintTop\_toBottomOf="@id/first\_number\_edit\_text"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 android:layout\_margin="16dp"/>  
  
 <TextView  
 android:id="@+id/result\_text\_view"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Result"  
 app:layout\_constraintTop\_toBottomOf="@id/second\_number\_edit\_text"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 android:layout\_margin="16dp"/>  
  
 <Button  
 android:id="@+id/add\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Add"  
 app:layout\_constraintTop\_toBottomOf="@id/result\_text\_view"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 android:layout\_margin="8dp"/>  
  
 <Button  
 android:id="@+id/subtract\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Subtract"  
 app:layout\_constraintTop\_toBottomOf="@id/add\_button"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 android:layout\_margin="8dp"/>  
  
 <Button  
 android:id="@+id/multiply\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Multiply"  
 app:layout\_constraintTop\_toBottomOf="@id/subtract\_button"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 android:layout\_margin="8dp"/>  
  
 <Button  
 android:id="@+id/divide\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Divide"  
 app:layout\_constraintTop\_toBottomOf="@id/multiply\_button"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 android:layout\_margin="8dp"/>  
  
</androidx.constraintlayout.widget.ConstraintLayout>

package com.example.slip4\_q1;  
  
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 {  
  
 private EditText firstNumberEditText, secondNumberEditText;  
 private TextView resultTextView;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 firstNumberEditText = findViewById(R.id.*first\_number\_edit\_text*);  
 secondNumberEditText = findViewById(R.id.*second\_number\_edit\_text*);  
 resultTextView = findViewById(R.id.*result\_text\_view*);  
  
 Button addButton = findViewById(R.id.*add\_button*);  
 Button subtractButton = findViewById(R.id.*subtract\_button*);  
 Button multiplyButton = findViewById(R.id.*multiply\_button*);  
 Button divideButton = findViewById(R.id.*divide\_button*);  
  
 addButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 calculate('+');  
 }  
 });  
  
 subtractButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 calculate('-');  
 }  
 });  
  
 multiplyButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 calculate('\*');  
 }  
 });  
  
 divideButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 calculate('/');  
 }  
 });  
 }  
  
 private void calculate(char operation) {  
 try {  
 double num1 = Double.*parseDouble*(firstNumberEditText.getText().toString());  
 double num2 = Double.*parseDouble*(secondNumberEditText.getText().toString());  
 double result = 0;  
  
 switch (operation) {  
 case '+':  
 result = num1 + num2;  
 break;  
 case '-':  
 result = num1 - num2;  
 break;  
 case '\*':  
 result = num1 \* num2;  
 break;  
 case '/':  
 if (num2 != 0) {  
 result = num1 / num2;  
 } else {  
 resultTextView.setText("Cannot divide by zero");  
 return;  
 }  
 break;  
 }  
  
 resultTextView.setText("Result: " + result);  
 } catch (NumberFormatException e) {  
 resultTextView.setText("Invalid input");  
 }  
 }  
}

QUE2=>notification

QUE2=>sql database

SLIP5:

QUE1=>find power and average

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">  
  
 <EditText  
 android:id="@+id/first\_number\_edit\_text"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Enter first number"  
 android:inputType="number"  
 android:layout\_margin="16dp"/>  
  
 <EditText  
 android:id="@+id/second\_number\_edit\_text"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Enter second number"  
 android:inputType="number"  
 android:layout\_below="@id/first\_number\_edit\_text"  
 android:layout\_marginTop="16dp"  
 android:layout\_marginStart="16dp"  
 android:layout\_marginEnd="16dp"/>  
  
 <Button  
 android:id="@+id/calculate\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Calculate"  
 android:layout\_below="@id/second\_number\_edit\_text"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="24dp"/>  
  
</RelativeLayout>

Activity\_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"  
 tools:context=".MainActivity">  
  
 <TextView  
 android:id="@+id/power\_text\_view"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Power: "  
 android:layout\_margin="16dp"/>  
  
 <TextView  
 android:id="@+id/average\_text\_view"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Average: "  
 android:layout\_below="@id/power\_text\_view"  
 android:layout\_marginTop="16dp"  
 android:layout\_marginStart="16dp"/>  
  
</RelativeLayout>

MainActivity.java

package com.example.slip5\_q1;  
  
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 {  
  
 private EditText firstNumberEditText, secondNumberEditText;  
 private Button calculateButton;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 firstNumberEditText = findViewById(R.id.*first\_number\_edit\_text*);  
 secondNumberEditText = findViewById(R.id.*second\_number\_edit\_text*);  
 calculateButton = findViewById(R.id.*calculate\_button*);  
  
 calculateButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 calculate();  
 }  
 });  
 }  
  
 private void calculate() {  
 double num1 = Double.*parseDouble*(firstNumberEditText.getText().toString());  
 double num2 = Double.*parseDouble*(secondNumberEditText.getText().toString());  
  
 double power = Math.*pow*(num1, num2);  
 double average = (num1 + num2) / 2;  
  
 Intent intent = new Intent(MainActivity.this, DisplayActivity.class);  
 intent.putExtra("power", power);  
 intent.putExtra("average", average);  
 startActivity(intent);  
 }  
}

DisplayActivity.java

package com.example.slip5\_q1;  
  
import android.os.Bundle;  
import android.widget.TextView;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class DisplayActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_result*);  
  
 TextView powerTextView = findViewById(R.id.*power\_text\_view*);  
 TextView averageTextView = findViewById(R.id.*average\_text\_view*);  
  
 double power = getIntent().getDoubleExtra("power", 0);  
 double average = getIntent().getDoubleExtra("average", 0);  
  
 powerTextView.setText("Power: " + power);  
 averageTextView.setText("Average: " + average);  
 }  
}

add following snippet in manifest.xml

<activity  
 android:name=".DisplayActivity"  
 android:exported="true">  
</activity>

QUE2=>alert dialog box

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">  
  
 <Button  
 android:id="@+id/showAlertDialogButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Show Custom AlertDialog"  
 android:layout\_centerInParent="true"/>  
</RelativeLayout>

Custom\_alert.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="wrap\_content"  
 android:orientation="vertical">  
  
 <TextView  
 android:id="@+id/friend1Button"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="John"  
 android:padding="20dp"  
 android:textSize="20sp"  
 android:gravity="center"  
 android:layout\_margin="20dp"  
 android:background="@android:color/darker\_gray"  
 android:textColor="@android:color/white"/>  
  
 <TextView  
 android:id="@+id/friend2Button"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Alice"  
 android:padding="20dp"  
 android:textSize="20sp"  
 android:layout\_margin="20dp"  
 android:gravity="center"  
 android:background="@android:color/darker\_gray"  
 android:textColor="@android:color/white"/>  
</LinearLayout>

MainActivity.java

package com.example.slip5\_q1a;  
  
import android.app.AlertDialog;  
import android.content.Context;  
import android.content.DialogInterface;  
import android.os.Bundle;  
import android.view.LayoutInflater;  
import android.view.View;  
import android.widget.Button;  
import android.widget.TextView;  
import android.widget.Toast;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
 private Context mContext;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 mContext = this;  
  
 Button showAlertDialogButton = findViewById(R.id.*showAlertDialogButton*);  
 showAlertDialogButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 showCustomAlertDialog();  
 }  
 });  
 }  
  
 private void showCustomAlertDialog() {  
 AlertDialog.Builder builder = new AlertDialog.Builder(mContext);  
 LayoutInflater inflater = getLayoutInflater();  
 View dialogView = inflater.inflate(R.layout.*custom\_alert*, null);  
 builder.setView(dialogView);  
  
 TextView friend1Button = dialogView.findViewById(R.id.*friend1Button*);  
 TextView friend2Button = dialogView.findViewById(R.id.*friend2Button*);  
  
 final AlertDialog alertDialog = builder.create();  
  
 friend1Button.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 greetFriend("John");  
 alertDialog.dismiss();  
 }  
 });  
  
 friend2Button.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 greetFriend("Alice");  
 alertDialog.dismiss();  
 }  
 });  
  
 alertDialog.show();  
 }  
  
 private void greetFriend(String friendName) {  
 Toast.*makeText*(mContext, "Hello " + friendName + "!", Toast.*LENGTH\_SHORT*).show();  
 }  
}

QUE2=>google map zoom in and out

SLIP 6:

QUE1=>send hello msg

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/sendMessageButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Send Message"  
 android:layout\_centerInParent="true"/>  
  
</RelativeLayout>

Display\_message.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=".DisplayActivity">  
  
 <TextView  
 android:id="@+id/displayMessageTextView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textSize="24sp"  
 android:layout\_centerInParent="true"/>  
  
</RelativeLayout>

MainActivity.java

package com.example.slip6\_q1;  
  
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) {  
 sendMessage();  
 }  
 });  
 }  
  
 private void sendMessage() {  
 Intent intent = new Intent(this, DisplayActivity.class);  
 intent.putExtra("message", "Hello!");  
 startActivity(intent);  
 }  
}

DisplayActivity.java

package com.example.slip6\_q1;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.TextView;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class DisplayActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*display\_message*);  
  
 Intent intent = getIntent();  
 String message = intent.getStringExtra("message");  
  
 TextView textView = findViewById(R.id.*displayMessageTextView*);  
 textView.setText(message);  
 }  
}

add following snippet in manifest.xml

<activity  
 android:name=".DisplayActivity"  
 android:exported="true">  
</activity>

QUE2=>listView

<?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">  
  
 <ListView  
 android:id="@+id/listView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content" />  
  
</LinearLayout>

package com.example.slip6\_q2a;  
  
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 {  
  
 ListView listView;  
  
 String[] data = {"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*, data);  
 listView.setAdapter(adapter);  
  
 listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {  
 @Override  
 public void onItemClick(AdapterView<?> parent, View view, int position, long id) {  
 String selectedItem = (String) parent.getItemAtPosition(position);  
 showToast(selectedItem);  
 }  
 });  
 }  
  
 private void showToast(String message) {  
 Toast.*makeText*(this, message, Toast.*LENGTH\_SHORT*).show();  
 }  
}

QUE2=>add and delete student details

SLIP 7:

QUE1=>radio button

<?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">  
  
 <RadioGroup  
 android:id="@+id/radioGroup"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical">  
  
 <RadioButton  
 android:id="@+id/radioButton1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Option 1" />  
  
 <RadioButton  
 android:id="@+id/radioButton2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Option 2" />  
  
 <RadioButton  
 android:id="@+id/radioButton3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Option 3" />  
  
 </RadioGroup>  
  
</LinearLayout>

package com.example.slip7\_q1;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.RadioButton;  
import android.widget.RadioGroup;  
import android.widget.Toast;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
 private RadioGroup radioGroup;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 radioGroup = findViewById(R.id.*radioGroup*);  
  
 radioGroup.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {  
 @Override  
 public void onCheckedChanged(RadioGroup group, int checkedId) {  
 RadioButton radioButton = findViewById(checkedId);  
 String text = radioButton.getText().toString();  
 showToast(text);  
 }  
 });  
 }  
  
 private void showToast(String message) {  
 Toast.*makeText*(this, "Selected option: " + message, Toast.*LENGTH\_SHORT*).show();  
 }  
}

QUE2=>phone call

QUE2=> on/off wifi

SLIP 8:

QUE1=>login using table 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="\*" >  
  
 <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>  
  
 <TableRow>  
 <Button  
 android:id="@+id/loginButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Login" />  
 </TableRow>  
  
 </TableLayout>  
  
</LinearLayout>

Activity\_next.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:gravity="center">  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Welcome to Next Activity!"  
 android:textSize="24sp"/>  
  
</RelativeLayout>

MainActivity.java

package com.example.slip8\_q1;  
  
import android.content.Intent;  
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 usernameEditText, passwordEditText;  
 private Button loginButton;  
 private TextView signUpTextView;  
  
 // Hardcoded username and password for demonstration purposes  
 private static final String *CORRECT\_USERNAME* = "user";  
 private static final String *CORRECT\_PASSWORD* = "1234";  
  
 @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) {  
 login();  
 }  
 });  
  
  
 }  
  
 private void login() {  
 String username = usernameEditText.getText().toString();  
 String password = passwordEditText.getText().toString();  
  
 if (username.equals(*CORRECT\_USERNAME*) && password.equals(*CORRECT\_PASSWORD*)) {  
 // Successful login  
 Toast.*makeText*(this, "Login successful!", Toast.*LENGTH\_SHORT*).show();  
 goToNextActivity();  
 } else {  
 // Failed login  
 Toast.*makeText*(this, "Invalid username or password", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
  
 private void goToNextActivity() {  
 Intent intent = new Intent(this, NextActivity.class);  
 startActivity(intent);  
 }  
}

NextActivity.java

package com.example.slip8\_q1;  
  
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 following snippet in manifest.xml

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

QUE2=> service to download

QUE2=>send email with attachment

SLIP 9:

QUE1=>reject if num is greater than 10

<?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">  
  
 <EditText  
 android:id="@+id/number1EditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Enter number 1"  
 android:inputType="number" />  
  
 <EditText  
 android:id="@+id/number2EditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/number1EditText"  
 android:layout\_marginTop="16dp"  
 android:hint="Enter number 2"  
 android:inputType="number" />  
  
 <Button  
 android:id="@+id/submitButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/number2EditText"  
 android:layout\_marginTop="16dp"  
 android:text="Submit" />  
  
 <TextView  
 android:id="@+id/resultTextView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/submitButton"  
 android:layout\_marginTop="16dp"  
 android:text="" />  
  
</RelativeLayout>

package com.example.slip9\_q1;  
  
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 {  
  
 private EditText number1EditText;  
 private EditText number2EditText;  
 private Button submitButton;  
 private TextView resultTextView;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 number1EditText = findViewById(R.id.*number1EditText*);  
 number2EditText = findViewById(R.id.*number2EditText*);  
 submitButton = findViewById(R.id.*submitButton*);  
 resultTextView = findViewById(R.id.*resultTextView*);  
  
 submitButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 validateAndDisplayNumbers();  
 }  
 });  
 }  
  
 private void validateAndDisplayNumbers() {  
 int number1 = Integer.*parseInt*(number1EditText.getText().toString());  
 int number2 = Integer.*parseInt*(number2EditText.getText().toString());  
  
 if (number1 > 10 && number2 > 10) {  
 // Both numbers are greater than 10, prompt user for new input  
 resultTextView.setText("Both numbers should not be greater than 10. Please enter new numbers.");  
 number1EditText.setText("");  
 number2EditText.setText("");  
 } else {  
 // Display the numbers  
 resultTextView.setText("Number 1: " + number1 + "\nNumber 2: " + number2);  
 }  
 }  
}

QUE2=> geocoding

QUE2=>insert and show company details

SLIP 10:

QUE1=>switch and toggle button

<?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:layout\_marginBottom="16dp"/>  
  
 <ToggleButton  
 android:id="@+id/toggleButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Toggle"  
 android:layout\_below="@id/switchButton"/>  
  
 <TextView  
 android:id="@+id/switchStateTextView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/toggleButton"  
 android:text="Switch State: "  
 android:textStyle="bold"  
 android:layout\_marginTop="16dp"/>  
  
 <TextView  
 android:id="@+id/toggleStateTextView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/switchStateTextView"  
 android:text="Toggle State: "  
 android:textStyle="bold"  
 android:layout\_marginTop="16dp"/>  
  
</RelativeLayout>

package com.example.slip10\_q1;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.CompoundButton;  
import android.widget.Switch;  
import android.widget.TextView;  
import android.widget.ToggleButton;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
 private TextView switchStateTextView;  
 private TextView toggleStateTextView;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 switchStateTextView = findViewById(R.id.*switchStateTextView*);  
 toggleStateTextView = findViewById(R.id.*toggleStateTextView*);  
  
 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) {  
 updateSwitchState(isChecked);  
 }  
 });  
  
 toggleButton.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {  
 @Override  
 public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {  
 updateToggleState(isChecked);  
 }  
 });  
 }  
  
 private void updateSwitchState(boolean isChecked) {  
 if (isChecked) {  
 switchStateTextView.setText("Switch State: ON");  
 } else {  
 switchStateTextView.setText("Switch State: OFF");  
 }  
 }  
  
 private void updateToggleState(boolean isChecked) {  
 if (isChecked) {  
 toggleStateTextView.setText("Toggle State: ON");  
 } else {  
 toggleStateTextView.setText("Toggle State: OFF");  
 }  
 }  
}

QUE2=>list view of fruits

<?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">  
  
 <ListView  
 android:id="@+id/listView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"/>  
  
</RelativeLayout>

package com.example.slip10\_q2b;  
  
import android.os.Bundle;  
import android.widget.ArrayAdapter;  
import android.widget.ListView;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import java.util.ArrayList;  
import java.util.Arrays;  
import java.util.List;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 // Array of fruits  
 String[] fruitsArray = {"Apple", "Banana", "Orange", "Grapes", "Mango", "Strawberry"};  
  
 // Convert array to list  
 List<String> fruitsList = new ArrayList<>(Arrays.*asList*(fruitsArray));  
  
 // Initialize ArrayAdapter  
 ArrayAdapter<String> adapter = new ArrayAdapter<>(this, android.R.layout.*simple\_list\_item\_1*, fruitsList);  
  
 // Get reference to ListView  
 ListView listView = findViewById(R.id.*listView*);  
  
 // Set adapter to ListView  
 listView.setAdapter(adapter);  
 }  
}

QUE2 =>fragments

SLIP 11:

QUE1=>change font size,color and family

<?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/font\_size\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Change Font Size"  
 android:layout\_marginTop="16dp"  
 android:layout\_marginStart="16dp"  
 android:onClick="changeFontSize"/>  
  
 <Button  
 android:id="@+id/font\_color\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Change Font Color"  
 android:layout\_below="@id/font\_size\_button"  
 android:layout\_marginTop="16dp"  
 android:layout\_marginStart="16dp"  
 android:onClick="changeFontColor"/>  
  
 <Button  
 android:id="@+id/font\_family\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Change Font Family"  
 android:layout\_below="@id/font\_color\_button"  
 android:layout\_marginTop="16dp"  
 android:layout\_marginStart="16dp"  
 android:onClick="changeFontFamily"/>  
  
 <TextView  
 android:id="@+id/display\_text"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="HELLO WORLD !"  
 android:textSize="18sp"  
 android:textColor="@color/white"  
 android:layout\_below="@id/font\_family\_button"  
 android:layout\_marginTop="16dp"  
 android:layout\_marginStart="16dp"/>  
  
</RelativeLayout>

package com.example.firstProgram;  
  
import androidx.appcompat.app.AppCompatActivity;  
import android.graphics.Color;  
import android.graphics.Typeface;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.EditText;  
import android.widget.TextView;  
import java.util.Random;  
  
public class MainActivity extends AppCompatActivity {  
  
// EditText editText;  
 TextView displayText;  
  
 // Array of font families  
 private static final String[] *FONT\_FAMILIES* = {"sans-serif", "serif", "monospace"};  
  
 // Array of colors  
 private static final int[] *COLORS* = {  
 Color.*RED*, Color.*GREEN*, Color.*BLUE*, Color.*YELLOW*, Color.*MAGENTA*, Color.*CYAN* };  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
// editText = findViewById(R.id.edit\_text);  
 displayText = findViewById(R.id.*display\_text*);  
 }  
  
 public void changeFontSize(View view) {  
// String text = editText.getText().toString();  
 float size = displayText.getTextSize() / getResources().getDisplayMetrics().scaledDensity;  
 size += 2; // Increase font size by 2sp  
 displayText.setTextSize(size);  
 }  
  
 public void changeFontColor(View view) {  
 // Get a random color from the COLORS array  
 Random random = new Random();  
 int colorIndex = random.nextInt(*COLORS*.length);  
 int color = *COLORS*[colorIndex];  
 displayText.setTextColor(color);  
 }  
  
 public void changeFontFamily(View view) {  
 // Get a random font family from the FONT\_FAMILIES array  
 Random random = new Random();  
 int fontFamilyIndex = random.nextInt(*FONT\_FAMILIES*.length);  
 String fontFamily = *FONT\_FAMILIES*[fontFamilyIndex];  
 Typeface typeface = Typeface.*create*(fontFamily, Typeface.*NORMAL*);  
 displayText.setTypeface(typeface);  
 }  
}

QUE2=> display student details on next activity

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/firstNameEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="First Name"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/middleNameEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Middle Name"  
 android:layout\_below="@id/firstNameEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/lastNameEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Last Name"  
 android:layout\_below="@id/middleNameEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/dobEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Date of Birth (DOB)"  
 android:layout\_below="@id/lastNameEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/addressEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Address"  
 android:layout\_below="@id/dobEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/emailEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Email ID"  
 android:layout\_below="@id/addressEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <Button  
 android:id="@+id/submitButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Submit"  
 android:layout\_below="@id/emailEditText"  
 android:layout\_centerHorizontal="true"/>  
  
</RelativeLayout>

Activity\_display.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=".DisplayActivity">  
  
 <TextView  
 android:id="@+id/detailsTextView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Student Details"  
 android:textSize="18sp"  
 android:textStyle="bold"  
 android:layout\_centerInParent="true"/>  
  
</RelativeLayout>

MainActivity.java

package com.example.slip11\_q2a;  
  
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 {  
  
 private EditText firstNameEditText, middleNameEditText, lastNameEditText;  
 private EditText dobEditText, addressEditText, emailEditText;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 firstNameEditText = findViewById(R.id.*firstNameEditText*);  
 middleNameEditText = findViewById(R.id.*middleNameEditText*);  
 lastNameEditText = findViewById(R.id.*lastNameEditText*);  
 dobEditText = findViewById(R.id.*dobEditText*);  
 addressEditText = findViewById(R.id.*addressEditText*);  
 emailEditText = findViewById(R.id.*emailEditText*);  
  
 Button submitButton = findViewById(R.id.*submitButton*);  
 submitButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 openSecondActivity();  
 }  
 });  
 }  
  
 private void openSecondActivity() {  
 String firstName = firstNameEditText.getText().toString();  
 String middleName = middleNameEditText.getText().toString();  
 String lastName = lastNameEditText.getText().toString();  
 String dob = dobEditText.getText().toString();  
 String address = addressEditText.getText().toString();  
 String email = emailEditText.getText().toString();  
  
 Intent intent = new Intent(this, DisplayActivity.class);  
 intent.putExtra("FIRST\_NAME", firstName);  
 intent.putExtra("MIDDLE\_NAME", middleName);  
 intent.putExtra("LAST\_NAME", lastName);  
 intent.putExtra("DOB", dob);  
 intent.putExtra("ADDRESS", address);  
 intent.putExtra("EMAIL", email);  
 startActivity(intent);  
 }  
}

DisplayActivity.java

package com.example.slip11\_q2a;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.TextView;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class DisplayActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_display*);  
  
 TextView detailsTextView = findViewById(R.id.*detailsTextView*);  
  
 Intent intent = getIntent();  
 String firstName = intent.getStringExtra("FIRST\_NAME");  
 String middleName = intent.getStringExtra("MIDDLE\_NAME");  
 String lastName = intent.getStringExtra("LAST\_NAME");  
 String dob = intent.getStringExtra("DOB");  
 String address = intent.getStringExtra("ADDRESS");  
 String email = intent.getStringExtra("EMAIL");  
  
 String details = "First Name: " + firstName + "\n" +  
 "Middle Name: " + middleName + "\n" +  
 "Last Name: " + lastName + "\n" +  
 "DOB: " + dob + "\n" +  
 "Address: " + address + "\n" +  
 "Email: " + email;  
  
 detailsTextView.setText(details);  
 }  
}

QUE2=> insert contact layout

SLIP 12:

QUE1=>send hi message

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/sendMessageButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Send Message"  
 android:layout\_centerInParent="true"/>  
  
</RelativeLayout>

Display\_message.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=".DisplayActivity">  
  
 <TextView  
 android:id="@+id/displayMessageTextView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textSize="24sp"  
 android:layout\_centerInParent="true"/>  
  
</RelativeLayout>

MainActivity.java

package com.example.slip6\_q1;  
  
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) {  
 sendMessage();  
 }  
 });  
 }  
  
 private void sendMessage() {  
 Intent intent = new Intent(this, DisplayActivity.class);  
 intent.putExtra("message", "Hello!");  
 startActivity(intent);  
 }  
}

DisplayActivity.java

package com.example.slip6\_q1;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.TextView;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class DisplayActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*display\_message*);  
  
 Intent intent = getIntent();  
 String message = intent.getStringExtra("message");  
  
 TextView textView = findViewById(R.id.*displayMessageTextView*);  
 textView.setText(message);  
 }  
}

add following snippet in manifest.xml

<activity  
 android:name=".DisplayActivity"  
 android:exported="true">  
</activity>

QUE2=>date and time picker

**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:paddingLeft="16dp"

android:paddingRight="16dp"

android:paddingTop="16dp"

android:paddingBottom="16dp"

tools:context=".MainActivity">

<EditText

android:layout\_width="200dp"

android:layout\_height="wrap\_content"

android:id="@+id/in\_date"

android:layout\_marginTop="82dp"

android:layout\_alignParentTop="true"

android:layout\_alignParentLeft="true"

android:layout\_alignParentStart="true" />

<Button

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="SELECT DATE"

android:id="@+id/btn\_date"

android:layout\_alignBottom="@+id/in\_date"

android:layout\_toRightOf="@+id/in\_date"

android:layout\_toEndOf="@+id/in\_date" />

<EditText

android:layout\_width="200dp"

android:layout\_height="wrap\_content"

android:id="@+id/in\_time"

android:layout\_below="@+id/in\_date"

android:layout\_alignParentLeft="true"

android:layout\_alignParentStart="true" />

<Button

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="SELECT TIME"

android:id="@+id/btn\_time"

android:layout\_below="@+id/btn\_date"

android:layout\_alignLeft="@+id/btn\_date"

android:layout\_alignStart="@+id/btn\_date" />

</RelativeLayout>

**MainActivity.java**

package com.example.ass4\_a3;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.app.DatePickerDialog;

import android.app.TimePickerDialog;

import android.os.Bundle;

import android.view.Menu;

import android.view.MenuItem;

import android.view.View;

import android.widget.Button;

import android.widget.DatePicker;

import android.widget.EditText;

import android.widget.TimePicker;

import java.util.Calendar;

public class MainActivity extends AppCompatActivity implements View.OnClickListener {

Button btnDatePicker, btnTimePicker;

EditText txtDate, txtTime;

private int mYear, mMonth, mDay, mHour, mMinute;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

btnDatePicker=(Button)findViewById(R.id.btn\_date);

btnTimePicker=(Button)findViewById(R.id.btn\_time);

txtDate=(EditText)findViewById(R.id.in\_date);

txtTime=(EditText)findViewById(R.id.in\_time);

btnDatePicker.setOnClickListener(this);

btnTimePicker.setOnClickListener(this);

}

@Override

public void onClick(View v) {

if (v == btnDatePicker) {

// Get Current Date

final Calendar c = Calendar.getInstance();

mYear = c.get(Calendar.YEAR);

mMonth = c.get(Calendar.MONTH);

mDay = c.get(Calendar.DAY\_OF\_MONTH);

DatePickerDialog datePickerDialog = new DatePickerDialog(this, new DatePickerDialog.OnDateSetListener() {

@Override

public void onDateSet(DatePicker view, int year,

int monthOfYear, int dayOfMonth) {

txtDate.setText(dayOfMonth + "-" + (monthOfYear + 1) + "-" + year);

}

}, mYear, mMonth, mDay);

datePickerDialog.show();

}

if (v == btnTimePicker) {

// Get Current Time

final Calendar c = Calendar.getInstance();

mHour = c.get(Calendar.HOUR\_OF\_DAY);

mMinute = c.get(Calendar.MINUTE);

// Launch Time Picker Dialog

TimePickerDialog timePickerDialog = new TimePickerDialog(this,

new TimePickerDialog.OnTimeSetListener() {

@Override

public void onTimeSet(TimePicker view, int hourOfDay,

int minute) {

txtTime.setText(hourOfDay + ":" + minute);

}

}, mHour, mMinute, false);

timePickerDialog.show();

}

}

}

Open w

QUE2=>contact layout to hold multiple info

<?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="wrap\_content"  
 android:orientation="vertical"  
 android:layout\_gravity="center\_vertical"  
 android:padding="16dp">  
  
 <ImageView  
 android:id="@+id/contactPhoto"  
 android:src="@drawable/profile"  
 android:layout\_width="48dp"  
 android:layout\_height="48dp"  
 android:layout\_marginEnd="16dp"/>  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical">  
  
 <EditText  
 android:id="@+id/contactName"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Name"  
 android:textColor="@color/white"  
 android:textSize="18sp"  
 android:textStyle="bold"/>  
  
 <EditText  
 android:id="@+id/contactNumber"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Contact Number"  
 android:textColor="@color/white"  
 android:textSize="16sp"/>  
  
 <EditText  
 android:id="@+id/contactEmail"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Email ID"  
 android:textColor="@color/white"  
 android:textSize="16sp"/>  
  
 </LinearLayout>  
  
</LinearLayout>

package com.example.slip12\_q2a;  
  
import android.os.Bundle;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.graphics.Insets;  
import androidx.core.view.ViewCompat;  
import androidx.core.view.WindowInsetsCompat;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.*enable*(this);  
 setContentView(R.layout.*activity\_main*);  
  
  
 }  
}

SLIP 13:

QUE1=> scroll view buttons

<?xml version="1.0" encoding="utf-8"?>  
<ScrollView xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content">  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical"  
 android:gravity="center\_horizontal">  
  
 <Button  
 android:layout\_width="100dp"  
 android:layout\_height="wrap\_content"  
 android:text="Button 1"  
 android:layout\_margin="100dp"  
 />  
  
 <Button  
 android:layout\_width="100dp"  
 android:layout\_height="wrap\_content"  
 android:text="Button 2"  
 android:layout\_margin="100dp"  
 />  
  
 <Button  
 android:layout\_width="100dp"  
 android:layout\_height="wrap\_content"  
 android:text="Button 3"  
 android:layout\_margin="100dp"  
 />  
  
 <Button  
 android:layout\_width="100dp"  
 android:layout\_height="wrap\_content"  
 android:text="Button 4"  
 android:layout\_margin="100dp"  
 />  
  
 <Button  
 android:layout\_width="100dp"  
 android:layout\_height="wrap\_content"  
 android:text="Button 5"  
 android:layout\_margin="100dp"  
 />  
  
 <Button  
 android:layout\_width="100dp"  
 android:layout\_height="wrap\_content"  
 android:text="Button 6"  
 android:layout\_margin="100dp"  
 />  
  
 <Button  
 android:layout\_width="100dp"  
 android:layout\_height="wrap\_content"  
 android:text="Button 7"  
 android:layout\_margin="100dp"  
 />  
  
 <Button  
 android:layout\_width="100dp"  
 android:layout\_height="wrap\_content"  
 android:text="Button 8"  
 android:layout\_margin="100dp"  
 />  
  
 <Button  
 android:layout\_width="100dp"  
 android:layout\_height="wrap\_content"  
 android:text="Button 9"  
 android:layout\_margin="100dp"  
 />  
  
 <Button  
 android:layout\_width="100dp"  
 android:layout\_height="wrap\_content"  
 android:text="Button 10"  
 android:layout\_margin="100dp"  
  
 />  
  
 </LinearLayout>  
  
</ScrollView>

package com.example.slip13\_q1;  
  
import android.os.Bundle;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.graphics.Insets;  
import androidx.core.view.ViewCompat;  
import androidx.core.view.WindowInsetsCompat;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.*enable*(this);  
 setContentView(R.layout.*activity\_main*);  
  
 }  
}

QUE2=> google map

QUE2=> create table

SLIP14:

QUE1=>lifecycle using log

package com.example.slip14\_q1;  
  
import android.os.Bundle;  
import android.util.Log;  
  
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: Activity created");  
 }  
  
 @Override  
 protected void onStart() {  
 super.onStart();  
 Log.*d*(*TAG*, "onStart: Activity started");  
 }  
  
 @Override  
 protected void onResume() {  
 super.onResume();  
 Log.*d*(*TAG*, "onResume: Activity resumed");  
 }  
  
 @Override  
 protected void onPause() {  
 super.onPause();  
 Log.*d*(*TAG*, "onPause: Activity paused");  
 }  
  
 @Override  
 protected void onStop() {  
 super.onStop();  
 Log.*d*(*TAG*, "onStop: Activity stopped");  
 }  
  
 @Override  
 protected void onDestroy() {  
 super.onDestroy();  
 Log.*d*(*TAG*, "onDestroy: Activity destroyed");  
 }  
  
 @Override  
 protected void onRestart() {  
 super.onRestart();  
 Log.*d*(*TAG*, "onRestart: Activity restarted");  
 }  
}

QUE2=>spinner text size with style

QUE2=>send email

SLIP15:

QUE1=> add a border

**BORDER.XML**

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

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

<stroke android:width="18dp" android:color="#8E0634"/>

<corners android:radius="40dp"/>

<solid android:color="#5C7CA3"/>

</shape>

**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"

android:background="@drawable/border"

tools:context=".MainActivity">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Hello World!"

android:textSize="45dp"

android:textStyle="bold"

android:textColor="@color/black"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

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

</androidx.constraintlayout.widget.ConstraintLayout>

QUE2=>employee details

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/firstNameEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="First Name"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/middleNameEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Middle Name"  
 android:layout\_below="@id/firstNameEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/lastNameEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Last Name"  
 android:layout\_below="@id/middleNameEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/dobEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Date of Birth (DOB)"  
 android:layout\_below="@id/lastNameEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/addressEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Address"  
 android:layout\_below="@id/dobEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/emailEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Email ID"  
 android:layout\_below="@id/addressEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <Button  
 android:id="@+id/submitButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Submit"  
 android:layout\_below="@id/emailEditText"  
 android:layout\_centerHorizontal="true"/>  
  
</RelativeLayout>

Activity\_display.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=".DisplayActivity">  
  
 <TextView  
 android:id="@+id/detailsTextView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Student Details"  
 android:textSize="18sp"  
 android:textStyle="bold"  
 android:layout\_centerInParent="true"/>  
  
</RelativeLayout>

MainActivity.java

package com.example.slip11\_q2a;  
  
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 {  
  
 private EditText firstNameEditText, middleNameEditText, lastNameEditText;  
 private EditText dobEditText, addressEditText, emailEditText;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 firstNameEditText = findViewById(R.id.*firstNameEditText*);  
 middleNameEditText = findViewById(R.id.*middleNameEditText*);  
 lastNameEditText = findViewById(R.id.*lastNameEditText*);  
 dobEditText = findViewById(R.id.*dobEditText*);  
 addressEditText = findViewById(R.id.*addressEditText*);  
 emailEditText = findViewById(R.id.*emailEditText*);  
  
 Button submitButton = findViewById(R.id.*submitButton*);  
 submitButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 openSecondActivity();  
 }  
 });  
 }  
  
 private void openSecondActivity() {  
 String firstName = firstNameEditText.getText().toString();  
 String middleName = middleNameEditText.getText().toString();  
 String lastName = lastNameEditText.getText().toString();  
 String dob = dobEditText.getText().toString();  
 String address = addressEditText.getText().toString();  
 String email = emailEditText.getText().toString();  
  
 Intent intent = new Intent(this, DisplayActivity.class);  
 intent.putExtra("FIRST\_NAME", firstName);  
 intent.putExtra("MIDDLE\_NAME", middleName);  
 intent.putExtra("LAST\_NAME", lastName);  
 intent.putExtra("DOB", dob);  
 intent.putExtra("ADDRESS", address);  
 intent.putExtra("EMAIL", email);  
 startActivity(intent);  
 }  
}

DisplayActivity.java

package com.example.slip11\_q2a;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.TextView;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class DisplayActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_display*);  
  
 TextView detailsTextView = findViewById(R.id.*detailsTextView*);  
  
 Intent intent = getIntent();  
 String firstName = intent.getStringExtra("FIRST\_NAME");  
 String middleName = intent.getStringExtra("MIDDLE\_NAME");  
 String lastName = intent.getStringExtra("LAST\_NAME");  
 String dob = intent.getStringExtra("DOB");  
 String address = intent.getStringExtra("ADDRESS");  
 String email = intent.getStringExtra("EMAIL");  
  
 String details = "First Name: " + firstName + "\n" +  
 "Middle Name: " + middleName + "\n" +  
 "Last Name: " + lastName + "\n" +  
 "DOB: " + dob + "\n" +  
 "Address: " + address + "\n" +  
 "Email: " + email;  
  
 detailsTextView.setText(details);  
 }  
}

QUE2=>login without database

SLIP 16:

QUE1=> student details and display

<?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">  
  
 <EditText  
 android:id="@+id/nameEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Name"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/surnameEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Surname"  
 android:layout\_below="@id/nameEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/classEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Class"  
 android:layout\_below="@id/surnameEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/genderEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Gender"  
 android:layout\_below="@id/classEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/hobbiesEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Hobbies"  
 android:layout\_below="@id/genderEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/marksEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Marks"  
 android:layout\_below="@id/hobbiesEditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <Button  
 android:id="@+id/submitBtn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Submit"  
 android:layout\_below="@id/marksEditText"  
 android:layout\_centerHorizontal="true"/>  
</RelativeLayout>

<?xml version="1.0" encoding="utf-8"?>  
<ScrollView xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
 <TableLayout  
 android:id="@+id/detailsTable"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:padding="16dp">  
  
 </TableLayout>  
</ScrollView>

package com.example.slip16\_q1;  
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 nameEditText, surnameEditText, classEditText, genderEditText, hobbiesEditText, marksEditText;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 nameEditText = findViewById(R.id.*nameEditText*);  
 surnameEditText = findViewById(R.id.*surnameEditText*);  
 classEditText = findViewById(R.id.*classEditText*);  
 genderEditText = findViewById(R.id.*genderEditText*);  
 hobbiesEditText = findViewById(R.id.*hobbiesEditText*);  
 marksEditText = findViewById(R.id.*marksEditText*);  
  
 Button submitBtn = findViewById(R.id.*submitBtn*);  
 submitBtn.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String name = nameEditText.getText().toString();  
 String surname = surnameEditText.getText().toString();  
 String studentClass = classEditText.getText().toString();  
 String gender = genderEditText.getText().toString();  
 String hobbies = hobbiesEditText.getText().toString();  
 String marks = marksEditText.getText().toString();  
  
 Intent intent = new Intent(MainActivity.this, DisplayActivity.class);  
 intent.putExtra("NAME", name);  
 intent.putExtra("SURNAME", surname);  
 intent.putExtra("CLASS", studentClass);  
 intent.putExtra("GENDER", gender);  
 intent.putExtra("HOBBIES", hobbies);  
 intent.putExtra("MARKS", marks);  
 startActivity(intent);  
 }  
 });  
 }  
}

package com.example.slip16\_q1;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.TableLayout;  
import android.widget.TableRow;  
import android.widget.TextView;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class DisplayActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_display*);  
  
 TableLayout detailsTable = findViewById(R.id.*detailsTable*);  
  
 Intent intent = getIntent();  
 String name = intent.getStringExtra("NAME");  
 String surname = intent.getStringExtra("SURNAME");  
 String studentClass = intent.getStringExtra("CLASS");  
 String gender = intent.getStringExtra("GENDER");  
 String hobbies = intent.getStringExtra("HOBBIES");  
 String marks = intent.getStringExtra("MARKS");  
  
 // Create table row for each detail  
 addRowToTable(detailsTable, "Name", name);  
 addRowToTable(detailsTable, "Surname", surname);  
 addRowToTable(detailsTable, "Class", studentClass);  
 addRowToTable(detailsTable, "Gender", gender);  
 addRowToTable(detailsTable, "Hobbies", hobbies);  
 addRowToTable(detailsTable, "Marks", marks);  
 }  
  
 private void addRowToTable(TableLayout table, String label, String value) {  
 TableRow row = new TableRow(this);  
 TextView labelTextView = new TextView(this);  
 labelTextView.setText(label);  
 TextView valueTextView = new TextView(this);  
 valueTextView.setText(value);  
 row.addView(labelTextView);  
 row.addView(valueTextView);  
 table.addView(row);  
 }  
}

QUE2=>time picker

<?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">  
  
 <TimePicker  
 android:id="@+id/timePicker"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginBottom="16dp"/>  
  
 <Button  
 android:id="@+id/selectTimeBtn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Select Time"  
 android:layout\_below="@id/timePicker"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="16dp"/>  
  
 <TextView  
 android:id="@+id/selectedTimeTextView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Selected Time: "  
 android:textSize="18sp"  
 android:textStyle="bold"  
 android:layout\_below="@id/selectTimeBtn"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="16dp"/>  
  
</RelativeLayout>

package com.example.slip16\_q2a;  
  
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;  
  
public class MainActivity extends AppCompatActivity {  
  
 TimePicker timePicker;  
 TextView selectedTimeTextView;  
 Button selectTimeBtn;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 timePicker = findViewById(R.id.*timePicker*);  
 selectedTimeTextView = findViewById(R.id.*selectedTimeTextView*);  
 selectTimeBtn = findViewById(R.id.*selectTimeBtn*);  
  
 selectTimeBtn.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 int hour = timePicker.getCurrentHour();  
 int minute = timePicker.getCurrentMinute();  
  
 String selectedTime = "Selected Time: " + hour + ":" + minute;  
 selectedTimeTextView.setText(selectedTime);  
 }  
 });  
 }  
}

QUE2=>calculator

<?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">  
  
 <TextView  
 android:id="@+id/resultTextView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="16dp"  
 android:text="0"  
 android:textSize="24sp"  
 android:textAlignment="center"/>  
  
 <GridLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:columnCount="4"  
 android:rowCount="5"  
 android:layout\_below="@id/resultTextView"  
 android:layout\_marginTop="16dp">  
  
 <!-- Buttons for numbers -->  
 <Button  
 android:id="@+id/button1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="1"  
 android:onClick="onNumberClick"/>  
  
 <Button  
 android:id="@+id/button2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="2"  
 android:onClick="onNumberClick"/>  
  
 <Button  
 android:id="@+id/button3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="3"  
 android:onClick="onNumberClick"/>  
  
 <Button  
 android:id="@+id/buttonPlus"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="+"  
 android:onClick="onOperatorClick"/>  
  
 <!-- Add buttons for numbers 4-9 and operators - \* / similarly -->  
  
 <Button  
 android:id="@+id/button4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="4"  
 android:onClick="onNumberClick"/>  
  
 <Button  
 android:id="@+id/button5"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="5"  
 android:onClick="onNumberClick"/>  
  
 <Button  
 android:id="@+id/button6"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="6"  
 android:onClick="onNumberClick"/>  
  
 <Button  
 android:id="@+id/buttonMinus"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="-"  
 android:onClick="onOperatorClick"/>  
  
 <Button  
 android:id="@+id/button7"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="7"  
 android:onClick="onNumberClick"/>  
  
 <Button  
 android:id="@+id/button8"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="8"  
 android:onClick="onNumberClick"/>  
  
 <Button  
 android:id="@+id/button9"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="9"  
 android:onClick="onNumberClick"/>  
  
 <Button  
 android:id="@+id/buttonMultiply"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="\*"  
 android:onClick="onOperatorClick"/>  
  
 <Button  
 android:id="@+id/button0"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="0"  
 android:layout\_columnSpan="2"  
 android:onClick="onNumberClick"/>  
  
 <Button  
 android:id="@+id/buttonDot"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="."  
 android:onClick="onNumberClick"/>  
  
 <Button  
 android:id="@+id/buttonDivide"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="/"  
 android:onClick="onOperatorClick"/>  
  
 <Button  
 android:id="@+id/buttonEquals"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="="  
 android:onClick="onEqualsClick"  
 android:layout\_columnSpan="2"/>  
 </GridLayout>  
  
</RelativeLayout>

package com.example.slip16\_q2b;  
  
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 resultTextView;  
 String operand1 = "";  
 String operator = "";  
 boolean isNewCalculation = true;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 resultTextView = findViewById(R.id.*resultTextView*);  
 }  
  
 public void onNumberClick(View view) {  
 if (isNewCalculation) {  
 resultTextView.setText("");  
 isNewCalculation = false;  
 }  
  
 String number = ((Button) view).getText().toString();  
 resultTextView.append(number);  
 }  
  
 public void onOperatorClick(View view) {  
 operand1 = resultTextView.getText().toString();  
 operator = ((Button) view).getText().toString();  
 isNewCalculation = true;  
 }  
  
 public void onEqualsClick(View view) {  
 String operand2 = resultTextView.getText().toString();  
 double result = calculateResult(Double.*parseDouble*(operand1), Double.*parseDouble*(operand2), operator);  
 resultTextView.setText(String.*valueOf*(result));  
 isNewCalculation = true;  
 }  
  
 private double calculateResult(double operand1, double operand2, String operator) {  
 switch (operator) {  
 case "+":  
 return operand1 + operand2;  
 case "-":  
 return operand1 - operand2;  
 case "\*":  
 return operand1 \* operand2;  
 case "/":  
 if (operand2 == 0) {  
 return Double.*NaN*; // Indicate division by zero  
 }  
 return operand1 / operand2;  
 default:  
 return Double.*NaN*;  
 }  
 }  
}

SLIP17:

QUE1=>phone call

QUE2=>spinner

<?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">  
  
 <Spinner  
 android:id="@+id/spinner"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="16dp"/>  
  
 <TextView  
 android:id="@+id/selectedItemTextView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Selected Item: "  
 android:textSize="18sp"  
 android:textStyle="bold"  
 android:layout\_below="@id/spinner"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="16dp"/>  
  
</RelativeLayout>

package com.example.slip17\_q2a;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.AdapterView;  
import android.widget.ArrayAdapter;  
import android.widget.Spinner;  
import android.widget.TextView;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import java.util.ArrayList;  
import java.util.List;  
  
public class MainActivity extends AppCompatActivity {  
  
 private Spinner spinner;  
 private TextView selectedItemTextView;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 spinner = findViewById(R.id.*spinner*);  
 selectedItemTextView = findViewById(R.id.*selectedItemTextView*);  
  
 // Create a list of items for the spinner  
 List<String> items = new ArrayList<>();  
 items.add("Item 1");  
 items.add("Item 2");  
 items.add("Item 3");  
 items.add("Item 4");  
 items.add("Item 5");  
  
 // Create an ArrayAdapter using the string array and a default spinner layout  
 ArrayAdapter<String> adapter = new ArrayAdapter<>(this, android.R.layout.*simple\_spinner\_item*, items);  
  
 // Specify the layout to use when the list of choices appears  
 adapter.setDropDownViewResource(android.R.layout.*simple\_spinner\_dropdown\_item*);  
  
 // Apply the adapter to the spinner  
 spinner.setAdapter(adapter);  
  
 // Set an item selected listener for the spinner  
 spinner.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {  
 @Override  
 public void onItemSelected(AdapterView<?> parent, View view, int position, long id) {  
 // Display the selected item in the TextView  
 String selectedItem = parent.getItemAtPosition(position).toString();  
 selectedItemTextView.setText("Selected Item: " + selectedItem);  
 }  
  
 @Override  
 public void onNothingSelected(AdapterView<?> parent) {  
 // Do nothing  
 }  
 });  
 }  
}

QUE2=>context menu to calculate factorial

SLIP 18:

QUE1=>alert dialog box

<?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">  
  
 <Button  
 android:id="@+id/showAlertDialogButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Show Alert Dialog"  
 android:layout\_centerInParent="true"/>  
  
</RelativeLayout>

package com.example.slip18\_q1;  
  
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 showAlertDialogButton = findViewById(R.id.*showAlertDialogButton*);  
 showAlertDialogButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 showAlertDialog();  
 }  
 });  
 }  
  
 private void showAlertDialog() {  
 AlertDialog.Builder builder = new AlertDialog.Builder(this);  
 builder.setTitle("Alert Dialog");  
 builder.setMessage("This is a sample alert dialog.");  
 builder.setPositiveButton("OK", null);  
 AlertDialog dialog = builder.create();  
 dialog.show();  
 }  
}

QUE2=>notification

QUE2=>calculate power and avg using context menu

SLIP19:

QUE1=>on/off toggle button

<RelativeLayout

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

xmlns:app="http://schemas.android.com/apk/res-auto"

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:padding="16dp"

android:background="@color/white"

tools:context=".MainActivity">

<ToggleButton

android:id="@+id/toggleButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_centerHorizontal="true"

android:layout\_centerVertical="true"

android:onClick="onToggleClick"

/>

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="100dp"

android:layout\_centerVertical="true"

android:layout\_centerHorizontal="true"

android:layout\_above="@+id/toggleButton"

android:textStyle="bold"

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

</RelativeLayout>

package com.example.ass4\_a4;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.TextView;

import android.widget.ToggleButton;

public class MainActivity

extends AppCompatActivity {

ToggleButton togglebutton;

TextView textview;

@Override

protected void onCreate(

Bundle savedInstanceState)

{

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

togglebutton

= (ToggleButton)findViewById(

R.id.toggleButton);

textview

= (TextView)findViewById(

R.id.textView);

}

public void onToggleClick(View view)

{

if (togglebutton.isChecked()) {

textview.setText("Toggle is ON");

}

else {

textview.setText("Toggle is OFF");

}

}

}

QUE2=>sms manager

<?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"  
 android:padding="12dp"  
 android:textSize="16sp"  
 android:layout\_marginBottom="16dp" />  
  
 <!-- android:background="@drawable/edit\_text\_background"-->  
  
 <EditText  
 android:id="@+id/messageEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/phoneNumberEditText"  
 android:hint="Message"  
 android:inputType="textMultiLine"  
 android:minLines="3"  
 android:maxLines="5"  
 android:padding="12dp"  
 android:textSize="16sp"  
 android:layout\_marginBottom="16dp" />  
  
 <!-- android:background="@drawable/edit\_text\_background"-->  
  
 <Button  
 android:id="@+id/sendButton"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/messageEditText"  
 android:text="Send"  
 android:textSize="18sp"  
 android:textColor="#ffffff"  
 android:padding="16dp" />  
  
 <!-- android:background="@drawable/button\_background"-->  
  
</RelativeLayout>

package com.example.smsmanager;  
  
import android.Manifest;  
import android.content.pm.PackageManager;  
import android.os.Bundle;  
import android.telephony.SmsManager;  
import android.view.View;  
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\_SEND\_SMS* = 1;  
  
 EditText phoneNumberEditText, messageEditText;  
 Button sendButton;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 phoneNumberEditText = findViewById(R.id.*phoneNumberEditText*);  
 messageEditText = findViewById(R.id.*messageEditText*);  
 sendButton = findViewById(R.id.*sendButton*);  
  
 sendButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String phoneNumber = phoneNumberEditText.getText().toString();  
 String message = messageEditText.getText().toString();  
 if (!phoneNumber.isEmpty() && !message.isEmpty()) {  
 if (checkPermission(Manifest.permission.*SEND\_SMS*)) {  
 sendSMS(phoneNumber, message);  
 } else {  
 ActivityCompat.*requestPermissions*(MainActivity.this,  
 new String[]{Manifest.permission.*SEND\_SMS*},  
 *PERMISSION\_REQUEST\_SEND\_SMS*);  
 }  
 } else {  
 Toast.*makeText*(MainActivity.this, "Please enter phone number and message", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 });  
 }  
  
 private boolean checkPermission(String permission) {  
 return ContextCompat.*checkSelfPermission*(this, permission) == PackageManager.*PERMISSION\_GRANTED*;  
 }  
  
 private void sendSMS(String phoneNumber, String message) {  
 try {  
 SmsManager smsManager = SmsManager.*getDefault*();  
 smsManager.sendTextMessage(phoneNumber, null, message, null, null);  
 Toast.*makeText*(getApplicationContext(), "SMS sent", Toast.*LENGTH\_SHORT*).show();  
 } catch (Exception e) {  
 Toast.*makeText*(getApplicationContext(), "SMS failed to send", Toast.*LENGTH\_SHORT*).show();  
 e.printStackTrace();  
 }  
 }  
  
 @Override  
 public void onRequestPermissionsResult(int requestCode, String[] permissions, int[] grantResults) {  
 super.onRequestPermissionsResult(requestCode, permissions, grantResults);  
 if (requestCode == *PERMISSION\_REQUEST\_SEND\_SMS*) {  
 if (grantResults.length > 0 && grantResults[0] == PackageManager.*PERMISSION\_GRANTED*) {  
 String phoneNumber = phoneNumberEditText.getText().toString();  
 String message = messageEditText.getText().toString();  
 sendSMS(phoneNumber, message);  
 } else {  
 Toast.*makeText*(this, "Permission denied. Cannot send SMS.", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 }  
}

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

QUE 2=> TABLE LAYOUT

SLIP 20:

QUE1=>change image on screen

<?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">  
  
 <ImageView  
 android:id="@+id/imageView"  
 android:layout\_width="250dp"  
 android:layout\_height="250dp"  
 android:scaleType="centerCrop"  
 android:src="@drawable/buspass" />  
  
 <Button  
 android:id="@+id/changeImageButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Change Image"  
 android:layout\_centerInParent="true"  
 android:layout\_marginTop="16dp" />  
  
</RelativeLayout>

package com.example.slip20\_q1;  
  
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 currentImageIndex = 1;  
 private static final int[] *IMAGE\_RESOURCES* = {R.drawable.*calculator*, R.drawable.*portfolio*, R.drawable.*profile*};  
  
 @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 when the button is clicked  
 currentImageIndex = (currentImageIndex + 1) % *IMAGE\_RESOURCES*.length;  
 imageView.setImageResource(*IMAGE\_RESOURCES*[currentImageIndex]);  
 }  
 });  
 }  
}

QUE2=>list view to display list of country

<?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">  
  
 <ListView  
 android:id="@+id/countryListView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent" />  
  
</RelativeLayout>

package com.example.slip20\_q2b;  
  
import android.os.Bundle;  
import android.widget.ArrayAdapter;  
import android.widget.ListView;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
 private ListView countryListView;  
 private String[] countries = {"USA", "Canada", "United Kingdom", "Australia", "Germany", "France", "Japan", "India", "Brazil", "South Africa"};  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 countryListView = findViewById(R.id.*countryListView*);  
  
 // Create ArrayAdapter to populate the ListView with country names  
 ArrayAdapter<String> adapter = new ArrayAdapter<>(this, android.R.layout.*simple\_list\_item\_1*, countries);  
  
 // Set the ArrayAdapter to the ListView  
 countryListView.setAdapter(adapter);  
 }  
}

QUE2=> MENUS TYPE