**slip5**

**Q1Create android application to accept two number and find power and Average Display the result on the next activity on Button Click**

**Xml file 1**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 tools:context=".MainActivity">  
  
 <EditText  
 android:id="@+id/num1EditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Enter first number"  
 android:inputType="numberDecimal"  
 android:layout\_marginBottom="16dp"/>  
  
 <EditText  
 android:id="@+id/num2EditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Enter second number"  
 android:inputType="numberDecimal"  
 android:layout\_below="@id/num1EditText"  
 android:layout\_marginBottom="16dp"/>  
  
 <Button  
 android:id="@+id/calculateButton"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Calculate"  
 android:layout\_below="@id/num2EditText"/>  
  
  
  
  
  
</LinearLayout>

**Java file 1**

package com.example.slip5powerapplication;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
  
public class MainActivity extends AppCompatActivity {  
 private EditText num1EditText;  
 private EditText num2EditText;  
 private Button calculateButton;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 num1EditText = findViewById(R.id.*num1EditText*);  
 num2EditText = findViewById(R.id.*num2EditText*);  
 calculateButton = findViewById(R.id.*calculateButton*);  
  
 calculateButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 double num1 = Double.*parseDouble*(num1EditText.getText().toString());  
 double num2 = Double.*parseDouble*(num2EditText.getText().toString());  
  
 double power = Math.*pow*(num1, num2);  
 double average = (num1 + num2) / 2;  
  
 Intent intent = new Intent(MainActivity.this, ResutlantActivity.class);  
 intent.putExtra("power", power);  
 intent.putExtra("average", average);  
 startActivity(intent);  
 }  
 });  
  
 }  
}

**xml file 2**

*<?*xml version="1.0" encoding="utf-8"*?>*<RelativeLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".ResutlantActivity">  
  
 <TextView  
 android:id="@+id/powerTextView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Power: "  
 android:textSize="20sp"  
 android:layout\_marginBottom="16dp"/>  
  
 <TextView  
 android:id="@+id/averageTextView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Average: "  
 android:textSize="20sp"  
 android:layout\_below="@id/powerTextView"/>  
  
</RelativeLayout>

**Java file 2**

package com.example.slip5powerapplication;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.TextView;  
  
public class ResutlantActivity extends AppCompatActivity {  
  
 private TextView powerTextView;  
 private TextView averageTextView;  
  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_resutlant*);  
 powerTextView = findViewById(R.id.*powerTextView*);  
 averageTextView = findViewById(R.id.*averageTextView*);  
  
 Intent intent = getIntent();  
 double power = intent.getDoubleExtra("power", 0);  
 double average = intent.getDoubleExtra("average", 0);  
  
 powerTextView.setText("Power: " + String.*valueOf*(power));  
 averageTextView.setText("Average: " + String.*valueOf*(average));  
  
 }  
}

**Q2) . Create an Android application that creates a custom Alert Dialog containing Friends Name and onClick of Friend Name Button greet accordingly.**

**Xml file**

*<?*xml version**="1.0"** encoding**="utf-8"***?>*<**RelativeLayout**xmlns:android**="http://schemas.android.com/apk/res/android"**xmlns:app**="http://schemas.android.com/apk/res-auto"**xmlns:tools**="http://schemas.android.com/tools"**android:layout\_width**="match\_parent"**android:layout\_height**="match\_parent"**tools:context**=".MainActivity"**>  
  
<**Button**android:id**="@+id/getBtn"**android:layout\_width**="wrap\_content"**android:layout\_height**="wrap\_content"**android:layout\_marginLeft**="150dp"**android:layout\_marginTop**="200dp"**android:text**="Show Alert"** />  
  
</**RelativeLayout**>

**Mainactivity.java**

**package** com.example.slip5\_1;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.app.AlertDialog;  
**import** android.content.DialogInterface;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.Toast;  
  
**import** java.util.ArrayList;  
  
**public class** MainActivity**extends** AppCompatActivity{  
**final** CharSequence[] Friend = { **"Neha"**, **"Shivani"**, **"Mahek"**, **"Sonal"** };  
ArrayList<Integer>slist= **new** ArrayList();  
**boolean**icount[] = **new boolean**[Friend.length];  
String msg=**""**;  
@Override  
**protected void** onCreate(Bundle savedInstanceState) {  
**super**.onCreate(savedInstanceState);  
setContentView(R.layout.*activity\_main*);  
  
Button btn= (Button)findViewById(R.id.*getBtn*);  
btn.setOnClickListener(**new** View.OnClickListener() {  
@Override  
**public void** onClick(View v) {  
AlertDialog.Builder builder = **new** AlertDialog.Builder(MainActivity.**this**);  
builder.setTitle(**"Choose Friends"**)  
 .setMultiChoiceItems(Friend,icount, **new** DialogInterface.OnMultiChoiceClickListener() {  
@Override  
**public void** onClick(DialogInterfacearg0, **int** arg1, **boolean**arg2) {  
**if** (arg2) {  
*// If user select a item then add it in selected items*slist.add(arg1);  
 } **else if** (slist.contains(arg1)) {  
*// if the item is already selected then remove it*slist.remove(Integer.*valueOf*(arg1));  
 }  
 }  
 }) .setCancelable(**false**)  
 .setPositiveButton(**"Yes"**, **new** DialogInterface.OnClickListener() {  
@Override  
**public void** onClick(DialogInterfacedialog, **int** which) {  
msg= **""**;  
**for** (**int** i = **0**; i<slist.size(); i++) {  
msg= msg+ **"**\n**"** + (i + **1**) + **" : "** + Friend[slist.get(i)];  
 }  
Toast.*makeText*(getApplicationContext(), **"Total "** + slist.size() + **" Items Selected.**\n**"** + msg, Toast.*LENGTH\_SHORT*).show();  
 }  
 })  
 .setNegativeButton(**"No"**, **new** DialogInterface.OnClickListener() {  
@Override  
**public void** onClick(DialogInterfacedialog, **int** which) {  
Toast.*makeText*(MainActivity.**this**,**"No Option Selected"**,Toast.*LENGTH\_SHORT*).show();  
 }  
 });  
*//Creating dialog box*AlertDialog dialog = builder.create();  
dialog.show();  
 }  
 });  
**}**

**}**