**DEPARTMENT OF COMPUTER APPLICATION**

**TKM COLLEGE OF ENGINEERING KOLLAM – 691005**



**20MCA243- MOBILE APPLICATION DEVELOPMENT LAB**

PRACTICAL RECORD BOOK

Third Semester MCA

2022-2023

**Submitted by:**

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**DEPARTMENT OF COMPUTER APPLICATION**

**TKM COLLEGE OF ENGINEERING**

**KOLLAM – 691005**



**Certificate**

This is a bonafide record of the work done by **MOHAMMED SHIBILI O** **(TKM21MCA-2029)** in the Third Semester in **MOBILE APPLICATION DEVELOPMENT LAB** Course(20MCA243) towards the partial fulfillment of the degree of Master of Computer Applications during the academic year 2022-2023.

Staff Member in-charge Examiner

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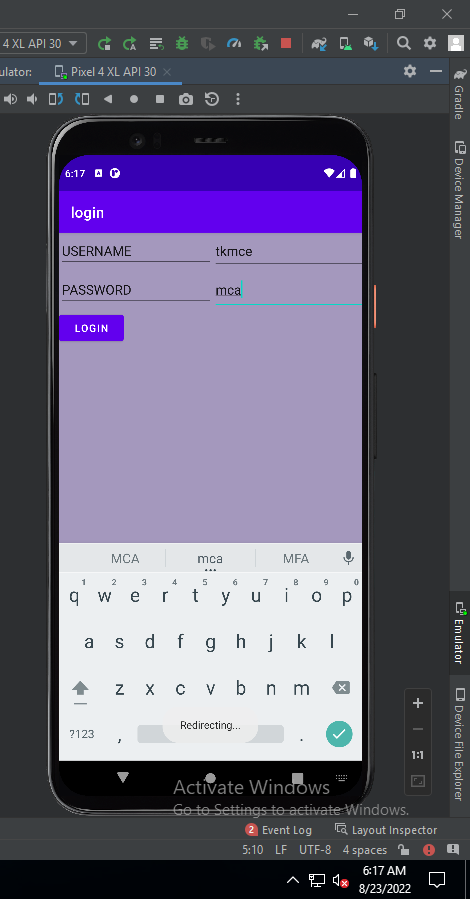
**PROGRAM 1**

**AIM:** To design a Login Form with username and password using LinearLayout and toast valid credentials

|  |  |
| --- | --- |
| **PROGRAM CODE:**  activity\_main.xml | <?xml version="1.0" encoding="utf8"?>  <androidx.appcompat.widget.LinearLayoutCompat 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="#CFB6DC"  android:backgroundTint="#A498BD"  android:visibility="visible"  tools:context=".MainActivity"  android:orientation="vertical">  <LinearLayout  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:orientation="horizontal">  <EditText  android:id="@+id/editTextTextPersonName"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:ems="10"  android:inputType="textPersonName"  android:text="USERNAME" />  <EditText  android:id="@+id/user"  android:layout\_width="240dp"  android:layout\_height="50dp"  android:ems="10"  android:inputType="textPersonName" />  </LinearLayout>  <LinearLayout  android:layout\_width="match\_parent"  android:layout\_height="wrap\_content"  android:orientation="horizontal">  <EditText  android:id="@+id/editTextTextPersonName2"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:ems="10"  android:inputType="textPersonName"  android:text="PASSWORD" />  <EditText  android:id="@+id/pass"  android:layout\_width="241dp"  android:layout\_height="55dp"  android:ems="10"  android:inputType="textPersonName" />  </LinearLayout>  <LinearLayout  android:layout\_width="wrap\_content"  android:layout\_height="75dp"  android:orientation="horizontal">  <Button  android:id="@+id/lg"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:text="LOGIN"  android:layout\_weight="1"/>  </LinearLayout>  </androidx.appcompat.widget.LinearLayoutCompat> |

|  |  |
| --- | --- |
| MainActivity.java | package com.example.workshow1;  import androidx.appcompat.app.AppCompatActivity;  import android.graphics.Color;  import android.os.Bundle;  import android.view.View;  import android.widget.Button;  import android.widget.EditText;  import android.widget.Toast;  public class MainActivity extends AppCompatActivity  {  private Button b1;  private EditText e1;  private EditText e2;  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_main);  b1=(Button)findViewById(R.id.lg);  e1=(EditText) findViewById(R.id.user);  e2=(EditText) findViewById(R.id.pass);  b1.setOnClickListener(new View.OnClickListener() {  public void onClick(View v) {  if(e1.getText().toString().equals("tkmce") &&  e2.getText().toString().equals("mca")) {  Toast.makeText(getApplicationContext(), "Redirecting ...",Toast.LENGTH\_SHORT).show();  }else{  Toast.makeText(getApplicationContext(), "Wrong Credentials",Toast.LENGTH\_SHORT).show();  }}});  }} |

**OUTPUT:**



**RESULT:** The program was successfully executed and obtained the output

**PROGRAM 2**

**AIM:** To create a program that demonstrates Activity Lifecycle

|  |  |
| --- | --- |
| **PROGRAM CODE:**  activity\_main.xml | <?xml version="1.0" encoding="utf-8"?>  <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)  xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">  <TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Hello World!"  app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" />  </androidx.constraintlayout.widget.ConstraintLayout> |
| MainActivity.java | import androidx.appcompat.app.AppCompatActivity;  import android.util.Log;  import android.widget.Toast;  public class MainActivity extends AppCompatActivity {  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_main);  Log.d("Message","Activity was created");  }protected void onStart() {  super.onStart();  Log.d("Message","Activity was Started");  }protected void onRestart() {  super.onRestart();  Log.d("Message","Activity was Restarted");  } protected void onResume(){  super.onResume();  Log.d("Message","Activity was Resumed");  } protected void onPause()  { super.onPause();  Log.d("Message","Activity was Paused");  } protected void onStop()  { super.onStop();  Toast.makeText(this,"on stopped activity",Toast.LENGTH\_SHORT).show();  Log.d("Message","Activity was Stopped");  }protected void onDestroy()  {super.onDestroy();  Toast.makeText(getApplicationContext(),"on destroyed activity",Toast.LENGTH\_SHORT).show();  Log.d("Message","Activity was Destroyed");}} |

## OUTPUT:

## 

**RESULT:** The program was successfully executed and obtained the output

**PROGRAM 3**

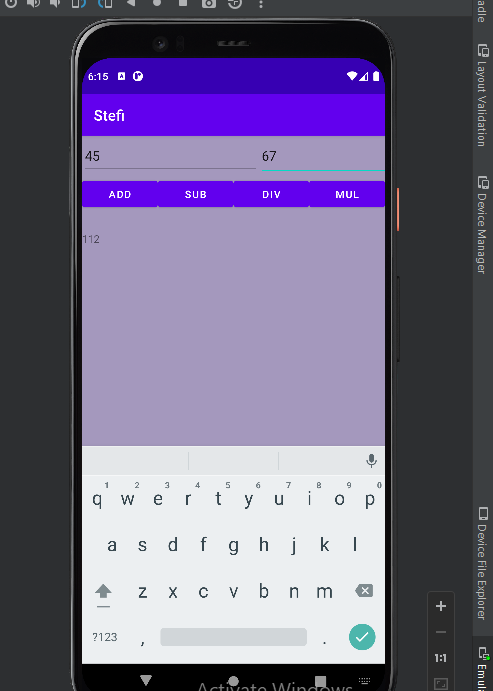
**AIM:** To implement basic arithmetic operations of a simple calculator

|  |  |
| --- | --- |
| **PROGRAM CODE:**  activity\_main.  xml | <?xml version="1.0" encoding="utf-8"?>  <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)  xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">  <EditText android:id="@+id/firstnum"  android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:ems="10"  android:hint="First Number" android:inputType="textPersonName" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.378" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.151" />  <EditText android:id="@+id/secondnum" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:ems="10" android:hint="Second Number" android:inputType="textPersonName"  app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.378" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toBottomOf="@+id/firstnum" app:layout\_constraintVertical\_bias="0.085" />  <Button  android:id="@+id/add" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginStart="44dp"  android:text="Add"  app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toStartOf="@+id/sub" app:layout\_constraintHorizontal\_bias="0.061" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toBottomOf="@+id/secondnum" app:layout\_constraintVertical\_bias="0.092" /> |

|  |  |
| --- | --- |
|  | <Button  android:id="@+id/sub" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginEnd="72dp" android:text="Subtract" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/secondnum" app:layout\_constraintVertical\_bias="0.092" />  <Button  android:id="@+id/mul" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Multiply" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toStartOf="@+id/div" app:layout\_constraintHorizontal\_bias="0.378" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toBottomOf="@+id/add" app:layout\_constraintVertical\_bias="0.135" />  <Button  android:id="@+id/div" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginTop="40dp" android:layout\_marginEnd="80dp" android:text="Divivde" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintTop\_toBottomOf="@+id/sub" app:layout\_constraintVertical\_bias="0.025" />  <TextView android:id="@+id/result"  android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Result" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.459"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/mul" app:layout\_constraintVertical\_bias="0.194" />  </androidx.constraintlayout.widget.ConstraintLayout> |

|  |  |
| --- | --- |
| MainActivity.java | package com.example.myapplication;  import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;  import android.view.View; import android.widget.Button; import android.widget.EditText; import android.widget.TextView;  public class MainActivity extends AppCompatActivity { private EditText num1,num2;  private Button add,sub,mul,div; private TextView result; @Override  protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);  num1 = (EditText) findViewById(R.id.firstnum); num2 = (EditText) findViewById(R.id.secondnum); add = (Button) findViewById(R.id.add);  sub = (Button) findViewById(R.id.sub); mul = (Button) findViewById(R.id.mul); div = (Button) findViewById(R.id.div);  result = (TextView) findViewById(R.id.result); add.setOnClickListener(new View.OnClickListener() {  @Override  public void onClick(View view) { int n1,n2,res;  n1 = Integer.parseInt(num1.getText().toString()); n2 = Integer.parseInt(num2.getText().toString()); res = n1 + n2; result.setText(String.valueOf(res));}});  sub.setOnClickListener(new View.OnClickListener() { @Override  public void onClick(View view) { int n1,n2,res;  n1 = Integer.parseInt(num1.getText().toString()); n2 = Integer.parseInt(num2.getText().toString()); res = n1 - n2; result.setText(String.valueOf(res));}});  mul.setOnClickListener(new View.OnClickListener() { @Override  public void onClick(View view) { int n1,n2,res;  n1 = Integer.parseInt(num1.getText().toString());  n2 = Integer.parseInt(num2.getText().toString());  res = n1 \* n2; result.setText(String.valueOf(res));}});  div.setOnClickListener(new View.OnClickListener() { @Override  public void onClick(View view) { int n1,n2,res;  n1 = Integer.parseInt(num1.getText().toString()); n2 = Integer.parseInt(num2.getText().toString()); res = n1 / n2;  result.setText(String.valueOf(res));}});}} |

## OUTPUT:



**RESULT:** The program was successfully executed and obtained the output

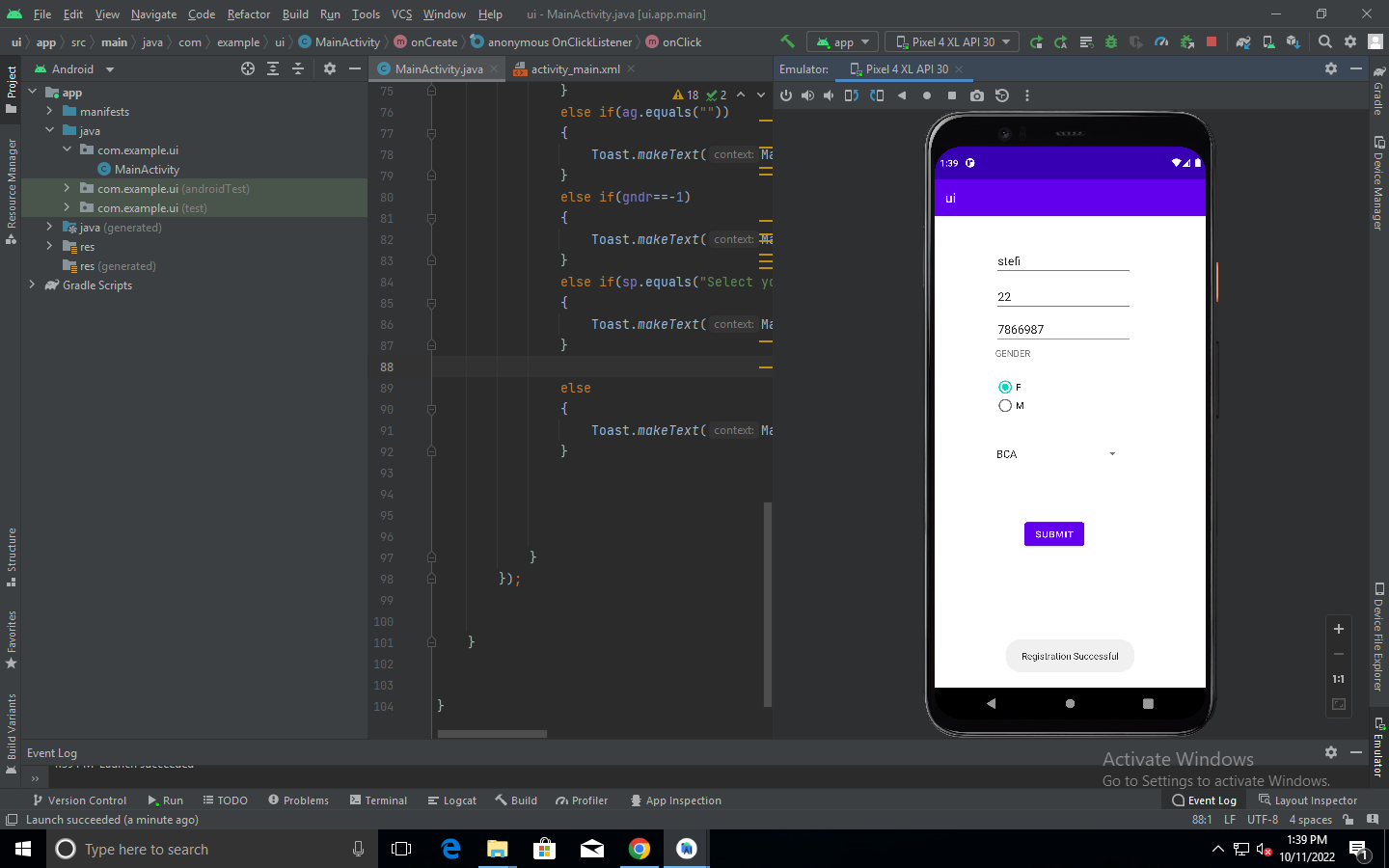
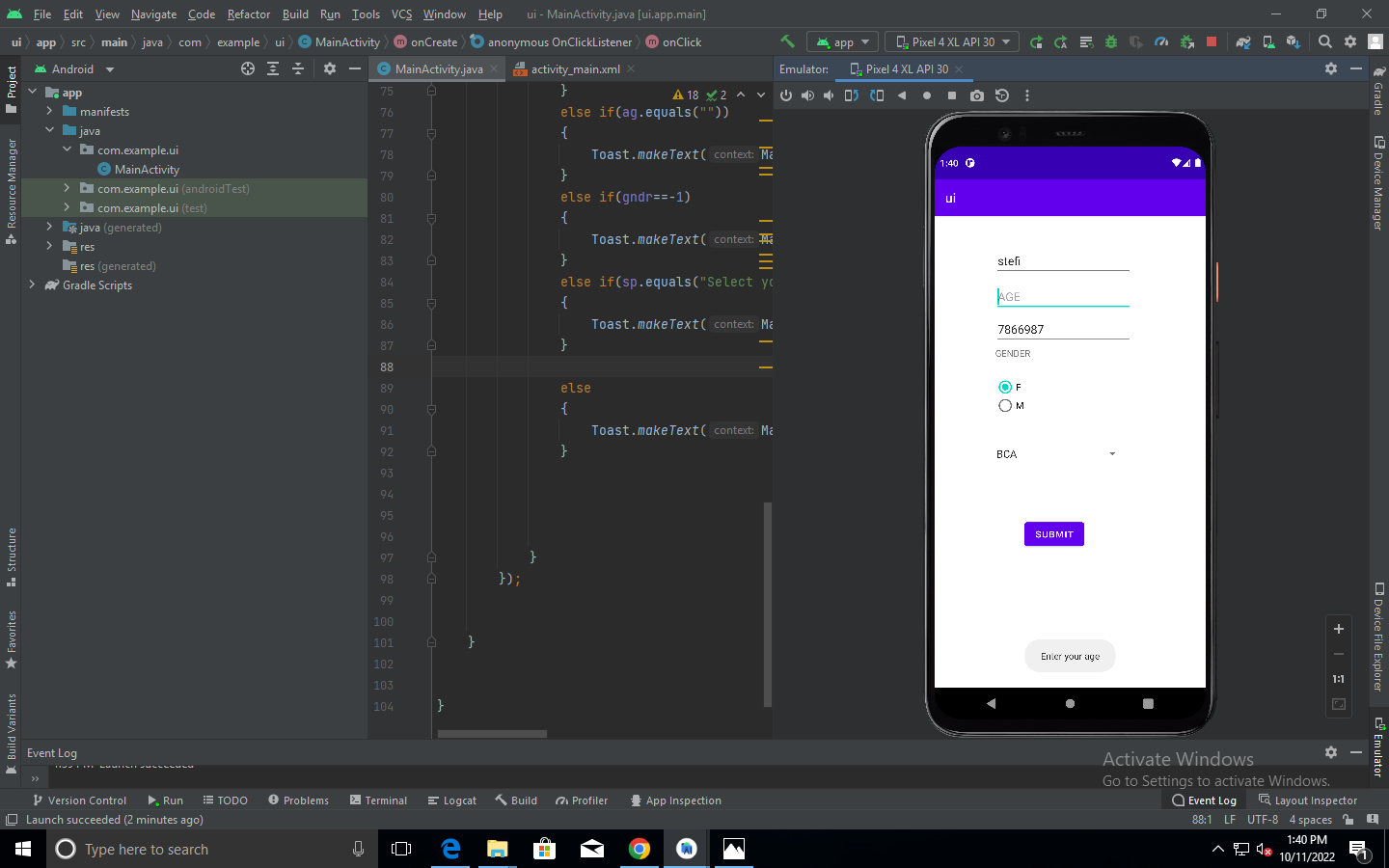
**PROGRAM 4**

**AIM:** To implement validations on various UI controls

|  |  |
| --- | --- |
| **PROGRAM CODE:**  activity\_main.xml | <?xml version="1.0" encoding="utf-8"?>  <androidx.appcompat.widget.LinearLayoutCompat xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:app="http://schemas.android.com/apk/res-auto"  xmlns:tools="http://schemas.android.com/tools"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  tools:context=".MainActivity"  android:orientation="vertical"  android:background="@color/cardview\_shadow\_start\_color">  <TextView  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:text="REGISTRATION FORM"  android:layout\_gravity="center"  android:textSize="30dp"  android:textStyle="bold"  android:textColor="@color/teal\_700"  android:layout\_marginTop="30dp"/>  <EditText  android:id="@+id/un"  android:layout\_width="350dp"  android:layout\_height="wrap\_content"  android:ems="10"  android:inputType="textPersonName"  android:hint="Username"  android:layout\_margin="30dp"/>  <EditText  android:id="@+id/em"  android:layout\_width="350dp"  android:layout\_height="wrap\_content"  android:ems="10"  android:inputType="textEmailAddress"  android:hint="Email"  android:layout\_marginLeft="30dp"/>  <EditText  android:id="@+id/ph"  android:layout\_width="350dp"  android:layout\_height="wrap\_content"  android:ems="10"  android:inputType="phone"  android:hint="Phone"  android:layout\_marginTop="30dp"  android:layout\_marginLeft="30dp"/>  <EditText  android:id="@+id/ag"  android:layout\_width="350dp"  android:layout\_height="wrap\_content"  android:ems="10"  android:inputType="number"  android:hint="Age"  android:layout\_marginTop="30dp"  android:layout\_marginLeft="30dp"/>  <TextView  android:layout\_width="350dp"  android:layout\_height="wrap\_content"  android:hint="Gender"  android:layout\_marginTop="30dp"  android:layout\_marginLeft="30dp"  android:textSize="18dp"/>  <RadioGroup  android:id="@+id/ge"  android:layout\_width="350dp"  android:layout\_height="50dp"  android:layout\_marginLeft="30dp"  android:orientation="horizontal">  <RadioButton  android:id="@+id/radioButton"  android:layout\_width="150dp"  android:layout\_height="wrap\_content"  android:text="Male"  android:layout\_weight="1"/>  <RadioButton  android:id="@+id/radioButton2"  android:layout\_width="150dp"  android:layout\_height="wrap\_content"  android:text="Female"  android:layout\_weight="1"/> </RadioGroup><TextView  android:layout\_width="350dp"  android:layout\_height="wrap\_content"  android:hint="Degree"  android:layout\_marginTop="30dp"  android:layout\_marginLeft="30dp"  android:textSize="18dp"/><Spinner  android:id="@+id/deg"  android:layout\_width="350dp"  android:layout\_height="50dp" android:layout\_marginLeft="30dp"/><EditText  android:id="@+id/psw"  android:layout\_width="350dp"  android:layout\_height="wrap\_content"  android:ems="10"  android:inputType="textPassword"  android:hint="Password"  android:layout\_marginTop="30dp"  android:layout\_marginLeft="30dp"/><Button android:id="@+id/bt"  android:layout\_width="wrap\_content"  android:layout\_height="50dp"  android:text="REGISTER"  android:layout\_gravity="center" android:layout\_marginBottom="10dp"/>  </androidx.appcompat.widget.LinearLayoutCompat> |

|  |  |
| --- | --- |
| MainActivity.java | package com.example.ui\_controls;  import androidx.appcompat.app.AppCompatActivity;  import android.os.Bundle;  import android.view.View;  import android.widget.AdapterView;  import android.widget.ArrayAdapter;  import android.widget.Button;  import android.widget.EditText;  import android.widget.RadioButton;  import android.widget.RadioGroup;  import android.widget.Spinner;  import android.widget.Toast;  import java.security.PrivateKey;  import java.util.ArrayList;  import java.util.List;  public class MainActivity extends AppCompatActivity { private EditText uname,email,phone,age,pwd;  private RadioGroup gn;  private Spinner dg;  private Button b;  String user,mail,phn,ag,pswd,sp;  int gndr;  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_main);  uname=(EditText) findViewById(R.id.un);  email=(EditText) findViewById(R.id.em);  phone=(EditText) findViewById(R.id.ph);  age=(EditText) findViewById(R.id.ag);  pwd=(EditText) findViewById(R.id.psw);  gn=(RadioGroup) findViewById(R.id.ge);  dg=(Spinner) findViewById(R.id.deg);  b=(Button) findViewById(R.id.bt);  List<String> items=new ArrayList<>();  items.add(0,"Select your degree");  items.add("MCA");  items.add("BCA");  items.add("MSc");  items.add("Bsc");  ArrayAdapter<String> dataAdapter;  dataAdapter=new ArrayAdapter(this, android.R.layout.simple\_spinner\_item,items);  dataAdapter.setDropDownViewResource(android.R.layout.simple\_spinner\_dropdown\_item);  dg.setAdapter(dataAdapter);  b.setOnClickListener(new View.OnClickListener() {  public void onClick(View v) {  user=uname.getText().toString().trim();  mail=email.getText().toString().trim();  phn=phone.getText().toString().trim();  ag=age.getText().toString().trim();  pswd=pwd.getText().toString().trim();  sp=dg.getSelectedItem().toString().trim();  gndr=gn.getCheckedRadioButtonId();  if(user.equals(""))  { Toast.makeText(MainActivity.this, "Enter your username", Toast.LENGTH\_SHORT).show();  }  else if(mail.equals(""))  {Toast.makeText(MainActivity.this, "Enter your email", Toast.LENGTH\_SHORT).show();  }  else if(phn.equals(""))  {  Toast.makeText(MainActivity.this, "Enter your phone number", Toast.LENGTH\_SHORT).show();  }  else if(ag.equals(""))  {  Toast.makeText(MainActivity.this, "Enter your age", Toast.LENGTH\_SHORT).show();  }else if(gndr==-1)  {Toast.makeText(MainActivity.this, "Enter your gender", Toast.LENGTH\_SHORT).show();  } else if(sp.equals("Select your degree"))  { Toast.makeText(MainActivity.this, "Enter your degree", Toast.LENGTH\_SHORT).show();  } else if(pswd.equals(""))  {Toast.makeText(MainActivity.this, "Enter your password", Toast.LENGTH\_SHORT).show();  } else  {  Toast.makeText(MainActivity.this, "Registration Successful", Toast.LENGTH\_SHORT).show();  }  }  });}} |

## OUTPUT:



**RESULT:** The program was successfully executed and obtained the output

**PROGRAM 5**

**AIM:** To design a registration activity and store registration details in local memory of phone using Intents and SharedPreferences

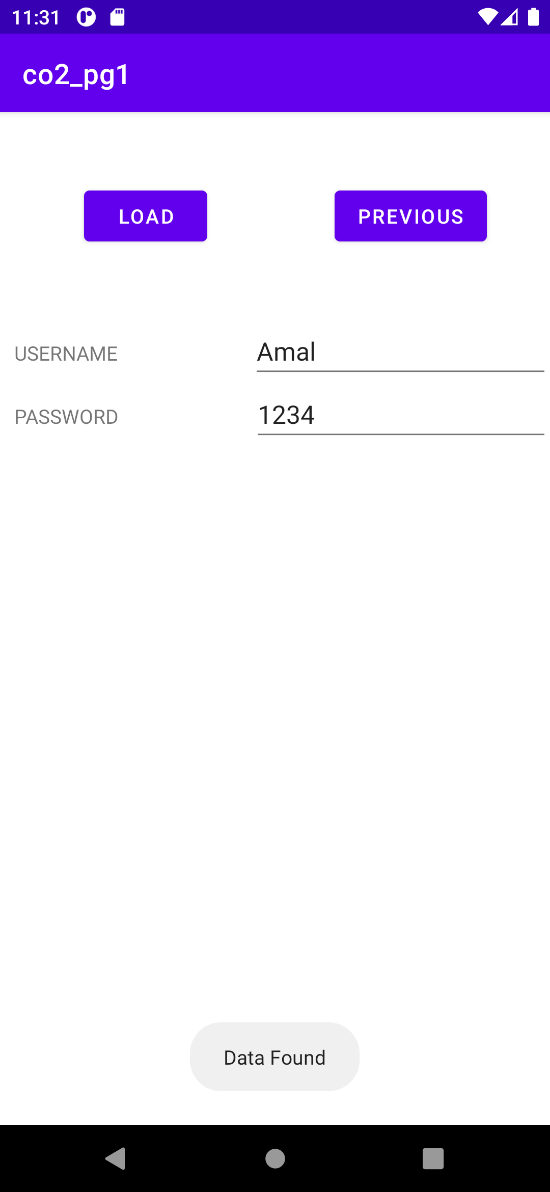
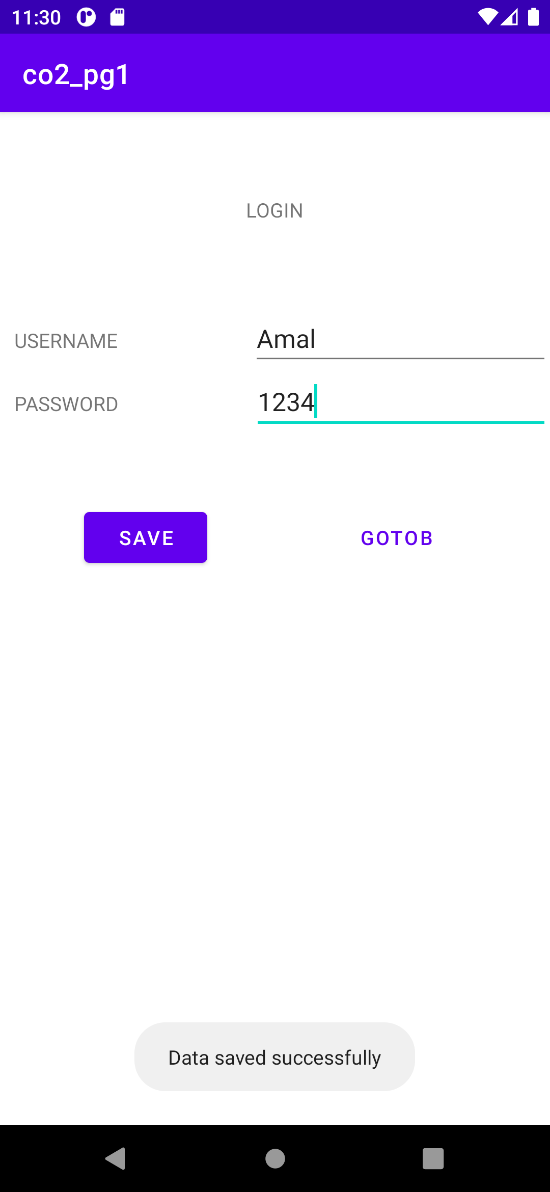
|  |  |
| --- | --- |
| **PROGRAM CODE:**  activity\_main.xml | <?xml version="1.0" encoding="utf-8"?>  <LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content"  xmlns:android="<http://schemas.android.com/apk/res/android>" android:orientation="vertical"  android:gravity="center">  <TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="LOGIN" android:id="@+id/login" android:layout\_margin="60sp"></TextView>  <LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:orientation="horizontal">  <TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/usernameT" android:text="USERNAME"  android:layout\_marginLeft="10sp"></TextView>  <EditText android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/username"  android:layout\_marginLeft="95dp"></EditText>  </LinearLayout>  <LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:orientation="horizontal">  <TextView  android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"  android:id="@+id/passwordT" android:text="PASSWORD" android:layout\_marginLeft="10sp"></TextView>  <EditText android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/password"  android:layout\_marginLeft="95dp"></EditText>  </LinearLayout><LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:orientation="horizontal" android:layout\_marginTop="50dp">  <Button android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/save" android:text="SAVE" android:layout\_marginLeft="60sp" android:onClick="save" />  <Button android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/GoToB" android:text="GoToB" android:layout\_marginLeft="250px" android:onClick="next" style="?android:attr/buttonBarButtonStyle" />  </LinearLayout>  </LinearLayout> |

|  |  |
| --- | --- |
| MainActivity.java | package com.example.co1p1;  import androidx.appcompat.app.AppCompatActivity; import android.content.Context;  import android.content.Intent;  import android.content.SharedPreferences; import android.os.Bundle;  import android.view.View; import android.widget.EditText; import android.widget.Toast;  public class MainActivity extends AppCompatActivity { EditText username;  EditText password; @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_main);  username = (EditText) findViewById(R.id.username); password = (EditText) findViewById(R.id.password);}  public void save(View view) {  SharedPreferences sp = getSharedPreferences("MyData", Context.MODE\_PRIVATE);  SharedPreferences.Editor ed = sp.edit(); ed.putString("name",username.getText().toString()); ed.putString("password",password.getText().toString()); ed.commit();  Toast.makeText(this, "Data saved successfully", Toast.LENGTH\_SHORT).show();}  public void next(View view){  Toast.makeText(this, "Next page", Toast.LENGTH\_SHORT).show(); Intent in = new Intent(this,ActivityB.class);  startActivity(in);}} |

|  |  |
| --- | --- |
| Activityb.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"  android:gravity="center">  <LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:orientation="horizontal" android:layout\_marginTop="50dp">  <Button  android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/load" android:text="LOAD" android:onClick="load" android:layout\_marginLeft="60sp"/>  <Button  android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/previous" android:text="PREVIOUS" android:onClick="prev" android:layout\_marginLeft="250px"/>  </LinearLayout>  <LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:orientation="horizontal"  android:layout\_marginTop="50dp">  <TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/usernameT" android:text="USERNAME"  android:layout\_marginLeft="10sp"></TextView>  <EditText android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/username"  android:layout\_marginLeft="95dp"></EditText>  </LinearLayout>  <LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:orientation="horizontal">  <TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/passwordT" android:text="PASSWORD"  android:layout\_marginLeft="10sp"></TextView>  <EditText android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/password"  android:layout\_marginLeft="95dp"></EditText>  </LinearLayout>  </LinearLayout> |

|  |  |
| --- | --- |
| Activityb.java | package com.example.co1p1;  import androidx.appcompat.app.AppCompatActivity; import android.content.Context;  import android.content.Intent;  import android.content.SharedPreferences; import android.os.Bundle;  import android.view.View; import android.widget.EditText; import android.widget.Toast;  public class ActivityB extends AppCompatActivity { public static final String Default = "No values entered"; EditText username,password;  @Override  protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_b);  username = (EditText) findViewById(R.id.username);  password = (EditText) findViewById(R.id.password);}  public void load(View view){  SharedPreferences sp = getSharedPreferences("MyData", Context.MODE\_PRIVATE);  String user = sp.getString("name","Default"); String pass = sp.getString("password","Default"); if(user.equals(Default) || pass.equals(Default)){  Toast.makeText(this, "No data found", Toast.LENGTH\_SHORT).show();}  else{  username.setText(user); password.setText(pass);  Toast.makeText(this, "Data Found", Toast.LENGTH\_SHORT).show();  }}  public void prev(View view){  Toast.makeText(this, "Previous", Toast.LENGTH\_SHORT).show(); Intent in = new Intent(this,MainActivity.class);  startActivity(in);}} |

## OUTPUT:



**RESULT:** The program was successfully executed and obtained the output

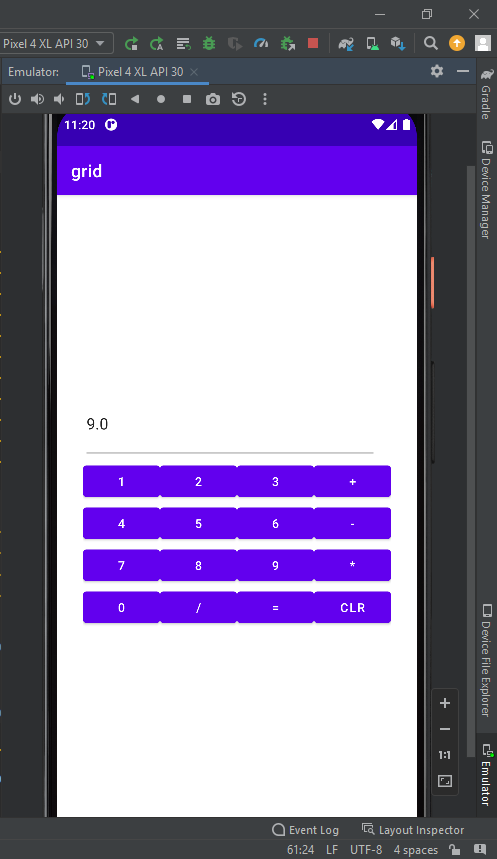
**PROGRAM 6**

**AIM:** To design a simple Calculator using GridLayout and Cascaded LinearLayout

|  |  |
| --- | --- |
| **PROGRAM CODE:**  MainActivity.java | package com.example.grid;  import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;  import android.view.View; import android.widget.EditText;  public class MainActivity extends AppCompatActivity  {  String oldNumber = ""; String op = "+";  boolean isNewOp = true; EditText ed1; @Override  protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);  ed1 = findViewById(R.id.ed1h);  }  public void NumberEvent(View view) { if (isNewOp)  ed1.setText(""); isNewOp = false;  String number = ed1.getText().toString(); switch (view.getId()) {  case R.id.bu1: number += "1"; break;  case R.id.bu2: number += "2"; break;  case R.id.bu3: number += "3"; break;  case R.id.bu4: number += "4"; break;  case R.id.bu5: number += "5"; break;  case R.id.bu6: number += "6"; break;  case R.id.bu7: number += "7"; break;  case R.id.bu8: number += "8"; break;  case R.id.bu9: number += "9"; break;  case R.id.bu0: number += "0"; break;  case R.id.bu1clr: number = ""; break;  }  ed1.setText(number);  }  public void OperatorEvent(View view) { isNewOp = true;  oldNumber = ed1.getText().toString(); switch (view.getId()) {  case R.id.budivide: op = "/";  break;  case R.id.bumul: op = "\*"; break;  case R.id.buminus: op = "-";  break;  case R.id.buplus: op = "+";  break;  }  }public void EqualEvent(View view) {  String newNumber = ed1.getText().toString(); double result = 0.0;  switch (op) { case "+":  result = Double.parseDouble(oldNumber) + Double.parseDouble(newNumber);  break; case "-":  result = Double.parseDouble(oldNumber) - Double.parseDouble(newNumber);  break; case "/":  result = Double.parseDouble(oldNumber) / Double.parseDouble(newNumber);  break; case "\*":  result = Double.parseDouble(oldNumber) \* Double.parseDouble(newNumber);  break;  }  ed1.setText(result + "");}} |

|  |  |
| --- | --- |
| activity.xml | <?xml version="1.0" encoding="utf-8"?>  <GridLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_gravity="center"  android:columnCount="4" android:orientation="vertical" tools:context=".MainActivity">  <GridLayout android:layout\_width="336dp" android:layout\_height="wrap\_content" android:columnCount="4" android:orientation="horizontal">  <EditText android:id="@+id/ed1h"  android:layout\_width="match\_parent" android:layout\_height="83dp" android:layout\_columnSpan="4" android:layout\_gravity="fill\_horizontal">  </EditText>  </GridLayout>  <GridLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:orientation="horizontal">  <Button  android:id="@+id/bu1" android:onClick="NumberEvent" android:text="1"  /><Button  android:id="@+id/bu2" android:onClick="NumberEvent" android:text="2"  /><Button  android:id="@+id/bu3" android:onClick="NumberEvent" android:text="3"  /><Button  android:id="@+id/buplus"  android:onClick="OperatorEvent" android:text="+"  /></GridLayout>  <GridLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:orientation="horizontal">  <Button  android:id="@+id/bu4" android:onClick="NumberEvent" android:text="4"  /><Button  android:id="@+id/bu5" android:onClick="NumberEvent" android:text="5"  /><Button  android:id="@+id/bu6" android:onClick="NumberEvent" android:text="6"  /><Button  android:id="@+id/buminus" android:onClick="OperatorEvent" android:text="-"  /></GridLayout>  <GridLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:orientation="horizontal">  <Button  android:id="@+id/bu7" android:onClick="NumberEvent" android:text="7"  /><Button  android:id="@+id/bu8" android:onClick="NumberEvent" android:text="8"  /><Button  android:id="@+id/bu9" android:onClick="NumberEvent" android:text="9"  /><Button  android:id="@+id/bumul"  android:onClick="OperatorEvent" android:text="\*"  /></GridLayout>  <GridLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:orientation="horizontal">  <Button  android:id="@+id/bu0" android:onClick="NumberEvent" android:text="0"  /><Button  android:id="@+id/budivide" android:onClick="OperatorEvent" android:text="/"  /><Button  android:id="@+id/bu1equals" android:onClick="EqualEvent" android:text="="  /><Button  android:id="@+id/bu1clr" android:onClick="NumberEvent" android:text="Clr"  /></GridLayout>  </GridLayout> |

## OUTPUT:



**RESULT:** The program was successfully executed and obtained the output

# PROGRAM 7

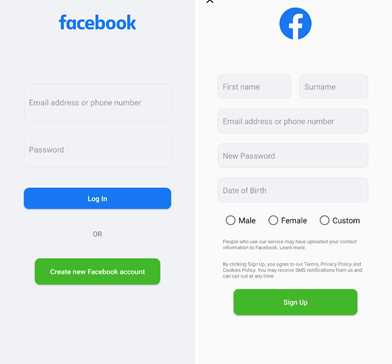
**AIM:** To create a Facebook page using RelativeLayout; set properties using .xml file

|  |  |
| --- | --- |
| **PROGRAM CODE:**  Login.xml | android:paddingStart="10dp" android:paddingEnd="10dp" android:textSize="16dp" />  <Button  android:id="@+id/button" android:layout\_width="match\_parent" android:layout\_height="43dp" android:layout\_marginTop="40dp" android:layout\_marginLeft="48dp" android:layout\_marginRight="48dp" android:layout\_below="@+id/password" android:background="@drawable/login\_page\_log" android:text="Log In" android:onClick="nextPage" android:textAllCaps="false" android:textColor="@color/white" />  <TextView android:id="@+id/textView" android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content" android:layout\_below="@+id/button" android:layout\_marginTop="40dp" android:layout\_centerHorizontal="true" android:text="OR" />  <Button  android:id="@+id/button2" android:layout\_width="match\_parent" android:layout\_height="53dp" android:layout\_marginTop="40dp" android:layout\_marginLeft="70dp" android:layout\_marginRight="70dp" android:layout\_below="@+id/textView" android:background="@drawable/login\_page\_button" android:text="Create new Facebook account" android:onClick="nextPage" android:textAllCaps="false" android:textColor="@color/white" android:textSize="14sp" />  </RelativeLayout> |

|  |  |
| --- | --- |
| Main.java | package com.example.facebook;  import androidx.appcompat.app.AppCompatActivity; import android.content.Intent;  import android.os.Bundle; import android.view.View; import android.widget.Toast;  public class loginpage extends AppCompatActivity {  @Override  protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_loginpage);}  public void nextPage(View view){ if(view.getId()==R.id.button){  Toast.makeText(this, "Logged In", Toast.LENGTH\_SHORT).show();  startActivity(new Intent(loginpage.this,profile.class));} else{  sartActivity(new Intent(loginpage.this,reg.class));}}} |
| Profile.xml | <?xml version="1.0" encoding="utf-8"?>  <RelativeLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)  xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".profile">  <com.google.android.material.imageview.ShapeableImageView android:id="@+id/imageView2" android:layout\_width="match\_parent" android:layout\_height="260dp" app:srcCompat="@drawable/cover" android:layout\_marginTop="0dp" android:layout\_marginLeft="10dp" android:layout\_marginRight="10dp"/>  <com.google.android.material.imageview.ShapeableImageView android:id="@+id/imageView3" android:layout\_width="170dp" android:layout\_height="170dp" android:layout\_below="@+id/imageView2" app:srcCompat="@drawable/profile1" app:shapeAppearanceOverlay="@style/circular" android:layout\_centerHorizontal="true" android:layout\_marginTop="-100dp" android:padding="10dp"  app:strokeWidth="10dp" app:strokeColor="@color/white"/>  <TextView android:id="@+id/textView" android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content" android:layout\_below="@+id/imageView3" android:layout\_marginTop="5dp" android:layout\_centerHorizontal="true"  android:text="Amal Devandran"  android:textSize="20dp" android:textColor="@color/black" android:layout\_marginBottom="5dp"/>  <Button  android:id="@+id/button4" android:layout\_width="150dp" android:layout\_height="wrap\_content" android:layout\_below="@id/textView" android:layout\_marginLeft="10dp" android:paddingStart="5dp" android:background="@drawable/login\_page\_log" android:text="Add to story" android:drawableStart="@drawable/ic\_baseline\_add\_24" android:drawablePadding="1dp" android:textColor="@color/white"/>  <Button  android:id="@+id/button6" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_below="@id/textView" android:layout\_toRightOf="@+id/button4" android:layout\_marginLeft="15dp" android:drawablePadding="10dp" android:drawableStart="@drawable/ic\_baseline\_edit\_24" android:text="Edit profile" />  <Button  android:id="@+id/button7" android:layout\_width="50dp" android:layout\_height="wrap\_content" android:layout\_below="@id/textView" android:layout\_toRightOf="@+id/button6" android:layout\_marginLeft="15dp"  android:drawableStart="@drawable/ic\_baseline\_more\_horiz\_24"  />  <Button  android:id="@+id/button3" android:layout\_width="22dp" android:layout\_height="22dp" android:drawableLeft="@drawable/ic\_baseline\_close\_24" android:background="@drawable/close\_button\_reg" android:layout\_marginLeft="10dp" android:layout\_alignParentBottom="true" android:layout\_centerHorizontal="true" android:onClick="back" android:layout\_marginBottom="10dp"/>  </RelativeLayout>    Profile.java  package com.example.facebook;  import androidx.appcompat.app.AppCompatActivity; import android.content.Intent;  import android.os.Bundle; import android.view.View; import android.widget.Toast;  public class profile extends AppCompatActivity { @Override  protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_profile);}  public void back(View view){ Toast.makeText(this, "Logged out",  Toast.LENGTH\_SHORT).show();  startActivity(new Intent(profile.this,loginpage.class));}} |

|  |  |
| --- | --- |
| Reg.xml | <?xml version="1.0" encoding="utf-8"?>  <RelativeLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)  xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".reg">  <Button  android:id="@+id/button3" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:drawableLeft="@drawable/ic\_baseline\_close\_24" android:background="@drawable/close\_button\_reg" android:layout\_marginLeft="10dp" android:onClick="back"/>  <ImageView android:id="@+id/imageView" android:layout\_width="80dp" android:layout\_height="65dp"  app:srcCompat="@drawable/fb\_icon\_325x325" android:layout\_centerHorizontal="true" android:layout\_marginTop="40dp"/>  <EditText android:id="@+id/fname" android:layout\_width="150dp" android:layout\_height="50dp"  android:layout\_below="@+id/imageView" android:background="@drawable/custom\_input\_border" android:hint="First name" android:inputType="textPersonName" android:layout\_marginTop="70dp"  android:layout\_marginLeft="38dp"  android:layout\_marginRight="8dp" android:paddingStart="10dp" android:paddingEnd="10dp" android:textSize="16dp" />  <EditText android:id="@+id/surname" android:layout\_width="140dp" android:layout\_height="50dp"  android:layout\_toRightOf="@+id/fname" android:layout\_below="@+id/imageView" android:background="@drawable/custom\_input\_border" android:hint="Surname" android:inputType="textPersonName" android:layout\_marginTop="70dp" android:layout\_marginLeft="8dp" android:layout\_marginRight="38dp" android:paddingStart="10dp" android:paddingEnd="10dp"  android:textSize="16dp" />  <EditText android:id="@+id/email"  android:layout\_width="match\_parent" android:layout\_height="50dp"  android:layout\_below="@+id/fname" android:background="@drawable/custom\_input\_border" android:hint="Email address or phone number" android:inputType="textPersonName" android:layout\_marginTop="20dp" android:layout\_marginLeft="38dp" android:layout\_marginRight="48dp"  android:paddingStart="10dp" android:paddingEnd="10dp"  android:textSize="16dp" />  <EditText android:id="@+id/password"  android:layout\_width="match\_parent" android:layout\_height="50dp" android:layout\_below="@+id/email" android:background="@drawable/custom\_input\_border" android:hint="New Password" android:inputType="textPersonName" android:layout\_marginTop="20dp" android:layout\_marginLeft="38dp" android:layout\_marginRight="48dp" android:paddingStart="10dp" android:paddingEnd="10dp"  android:textSize="16dp" />  EditText android:id="@+id/date" android:hint="Date of Birth"  android:layout\_width="match\_parent" android:layout\_height="50dp" android:inputType="date" android:layout\_below="@+id/password" android:layout\_marginTop="20dp" android:layout\_marginLeft="38dp" android:layout\_marginRight="48dp" android:paddingStart="10dp" android:paddingEnd="10dp" android:background="@drawable/custom\_input\_border" android:textSize="16dp"/>  <RadioGroup android:id="@+id/group"  android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_below="@+id/date" android:layout\_marginTop="20dp" android:orientation="horizontal" android:layout\_marginLeft="38dp" android:layout\_marginRight="38dp" android:paddingStart="10dp" android:paddingEnd="10dp">  <RadioButton android:id="@+id/radioButton" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Male" android:layout\_marginLeft="0dp" android:textSize="16dp"/>  <RadioButton android:id="@+id/radioButton2" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Female" android:layout\_marginLeft="20dp" android:textSize="16dp"/>  <RadioButton android:id="@+id/radioButton3" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Custom" android:layout\_marginLeft="20dp" android:textSize="16dp"/>  </RadioGroup> |
| Reg.java | package com.example.facebook;  import androidx.appcompat.app.AppCompatActivity;  import android.content.Intent;  import android.os.Bundle;  import android.view.View;  import android.widget.Toast;  public class reg extends AppCompatActivity {  @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_reg);}  public void back(View view){  if(view.getId()==R.id.button5){  Toast.makeText(this, "Pleas sign in",  Toast.LENGTH\_SHORT).show();  startActivity(new Intent(reg.this,loginpage.class));  }  else{  startActivity(new Intent(reg.this,loginpage.class));  }  }  } |

## OUTPUT:



**RESULT:** The program was successfully executed and obtained the output

# PROGRAM 8

**AIM:** To develop an application that toggles image using FrameLayout

|  |  |
| --- | --- |
| **PROGRAM CODE:**  activity\_main.xml | <?xml version="1.0" encoding="utf-8"?>  <FrameLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent"  tools:context=".MainActivity">  <ImageView android:id="@+id/i1"  android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:src="@drawable/img1" />  <ImageView android:id="@+id/i2"  android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:src="@drawable/img2" />  </FrameLayout> |
| MainActivity.java | package com.example.myapplication;import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;  import android.view.View;  import android.widget.ImageView;  public class MainActivity extends AppCompatActivity { ImageView im1, im2;  protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);  im1 = findViewById(R.id.i1); im2 = findViewById(R.id.i2);  im1.setOnClickListener(this::onClick); im2.setOnClickListener(this::onClick);  }  private void onClick(View view) { if (view.getId() == R.id.i2) {  im2.setVisibility(view.GONE); im1.setVisibility(view.VISIBLE);  } else {  im1.setVisibility(view.GONE); im2.setVisibility(view.VISIBLE);  }  }  } |

## OUTPUT:

## 

## 

**RESULT:** The program was successfully executed and obtained the output

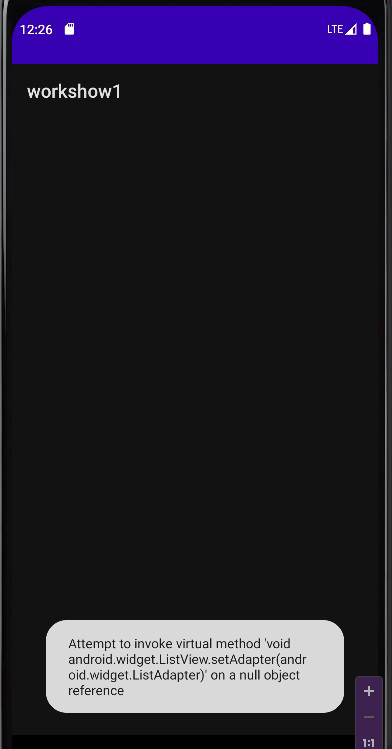
# PROGRAM 9

**AIM:** Implement Adapters and perform exception handling

|  |  |
| --- | --- |
| **PROGRAM CODE:**  MainActivity.java | package com.example.workshow1;  import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;  import android.widget.ArrayAdapter; import android.widget.ListView; import android.widget.TextView; import android.widget.Toast;  public class MainActivity extends AppCompatActivity { ListView l1;  String [] nam = {"Shajahan","Tovino","Ragav","Bineesh"}; protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);  try {  ArrayAdapter <String> adap = new ArrayAdapter<>(this,android.R.layout.simple\_list\_item\_1,nam)  ;  l1.setAdapter(adap);  }  catch (Exception e){ Toast.makeText(this, e.getMessage(),  Toast.LENGTH\_SHORT).show();  }  }  } |

|  |  |
| --- | --- |
|  |  |
| activity\_main.xml | <?xml version="1.0" encoding="utf-8"?>  <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)  xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">  <ListView android:id="@+id/l1"  android:layout\_width="411dp" android:layout\_height="335dp" tools:layout\_editor\_absoluteX="1dp" tools:layout\_editor\_absoluteY="1dp" />  <TextView android:id="@+id/t1" android:layout\_width="137dp" android:layout\_height="44dp"  android:textAlignment="center" android:textStyle="bold" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.5" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toBottomOf="@+id/l1" />  </androidx.constraintlayout.widget.ConstraintLayout> |

**OUTPUT:**



**RESULT:** The above program is successfully executed and obtained the output.

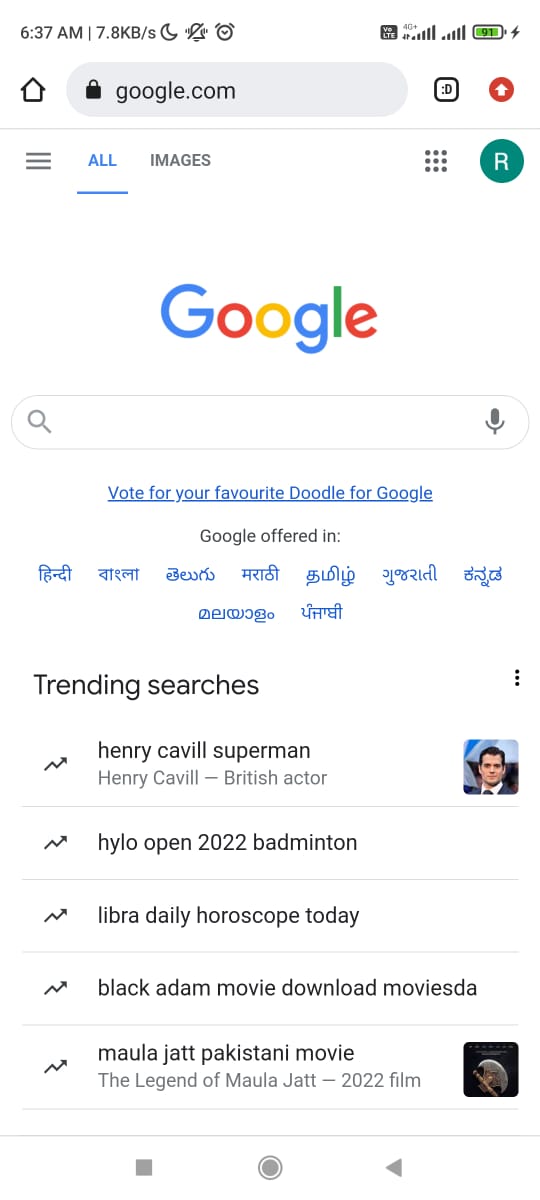
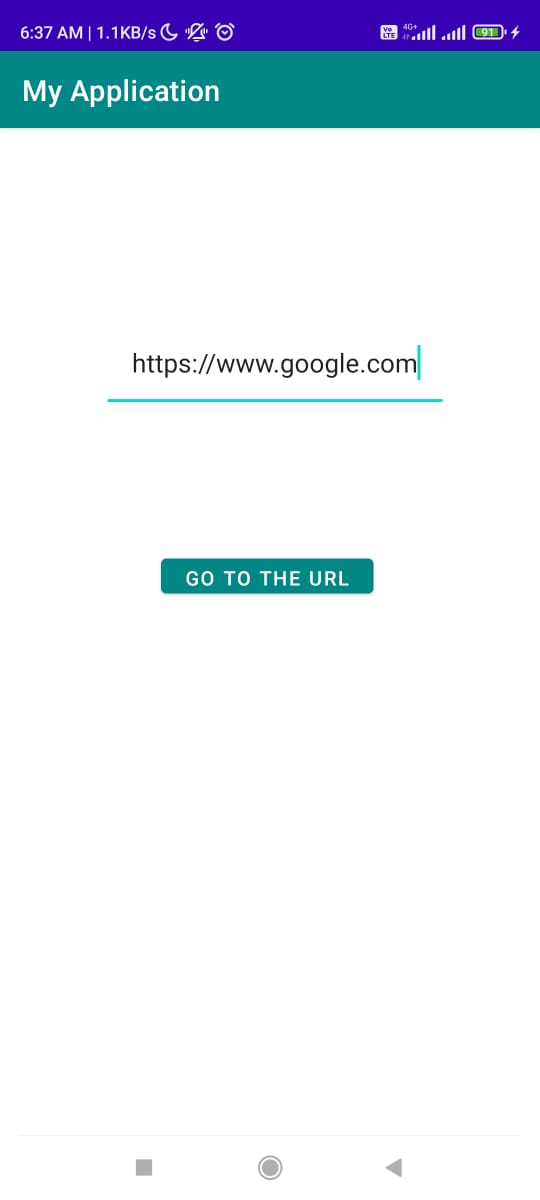
# 

# PROGRAM 10

**AIM:** Implement Intent to navigate between multiple activities

|  |  |
| --- | --- |
| **PROGRAM CODE:**  MainActivity.java | package com.example.myapplication;  import androidx.appcompat.app.AppCompatActivity;  import android.content.Intent;  import android.net.Uri;  import android.os.Bundle;  import android.view.View;  import android.widget.Button;  import android.widget.EditText;  public class implicit extends AppCompatActivity {  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_implicit);  final EditText editText =findViewById(R.id.textView3);  Button btn =findViewById(R.id.button7);  btn.setOnClickListener(new View.OnClickListener() {  @Override  public void onClick(View view) {  String url = editText.getText().toString();  Intent intent = new Intent(Intent.ACTION\_VIEW, Uri.parse(url));  startActivity(intent);  } });}} |
| activity\_main.xml | <?xml version="1.0" encoding="utf-8"?>  <RelativeLayout  xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:app="http://schemas.android.com/apk/res-auto"  xmlns:tools="http://schemas.android.com/tools"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  tools:context=".implicit">  <EditText  android:id="@+id/textView3"  android:layout\_width="270dp"  android:layout\_height="70dp"  android:layout\_alignParentStart="true"  android:layout\_alignParentTop="true"  android:layout\_alignParentEnd="true"  android:layout\_marginStart="74dp"  android:layout\_marginTop="136dp"  android:layout\_marginEnd="67dp"  android:gravity="center"  android:hint="Enter a url" />  <Button  android:id="@+id/button7"  android:layout\_width="173dp"  android:layout\_height="36dp"  android:layout\_below="@+id/textView3"  android:layout\_alignParentStart="true"  android:layout\_alignParentEnd="true"  android:layout\_alignParentBottom="true"  android:layout\_marginStart="117dp"  android:layout\_marginTop="101dp"  android:layout\_marginEnd="121dp"  android:layout\_marginBottom="388dp"  android:gravity="center"  android:text="Go to the URL" />  </RelativeLayout> |

**OUTPUT:**

****

**RESULT:** The above program is successfully executed and obtained the output.

# PROGRAM 11

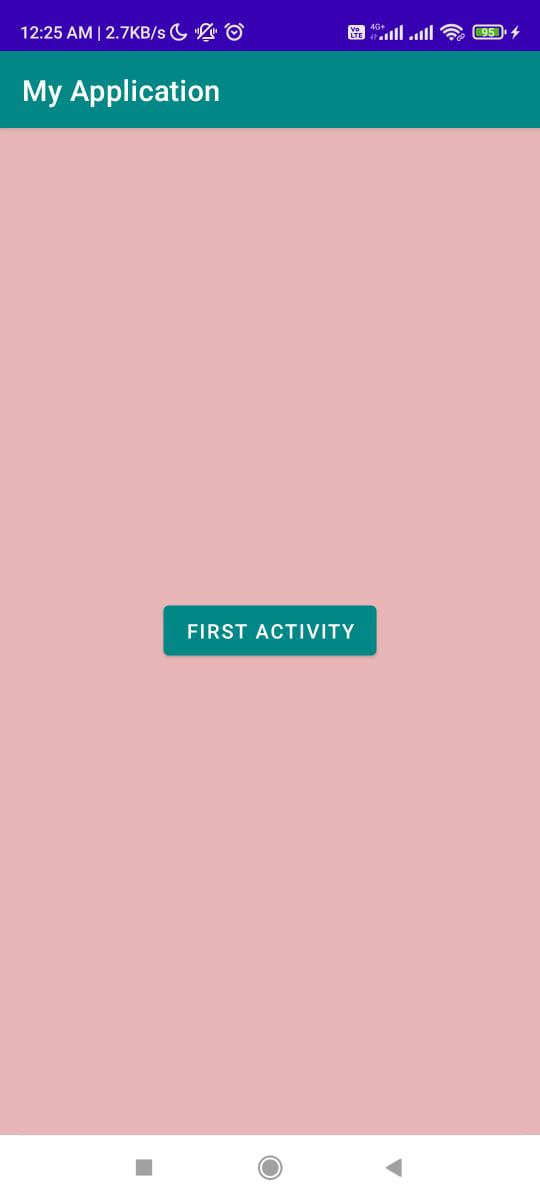
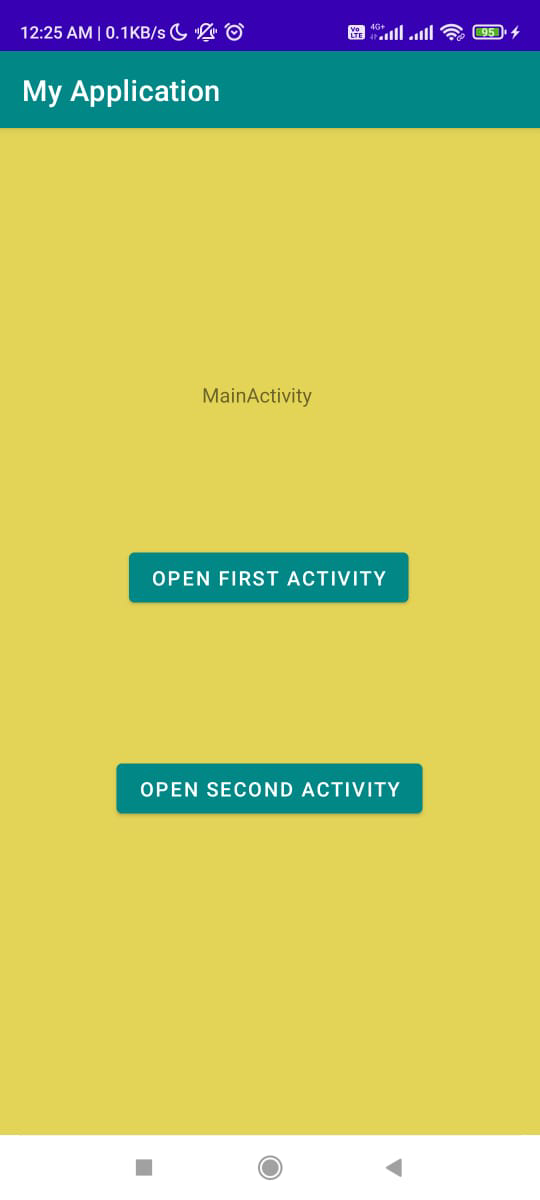
**AIM:** Develop application that works with explicit intents.

|  |  |
| --- | --- |
| MainActivity.java | package com.example.explicit;  import androidx.appcompat.app.AppCompatActivity; import android.content.Intent;  import android.os.Bundle; importandroid.widget.Toast; import java.util.Objects;  public class MainActivity extends AppCompatActivity { EditText Name;  EditText address;  EditText email;  Button Submit;  protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);  Name = findViewById(R.id.s1); address = findViewById(R.id.s2); email = findViewById(R.id.s3); Submit = findViewById(R.id.b1);  }  public void callSecondActivity(View view) { Intent i = new Intent(getApplicationContext(),  MainActivity2.class);  String str = "Name : "+ Name.getText().toString();  i.putExtra("Value1", str);  String str1 ="Address : "+ address.getText().toString();  i.putExtra("Value2", str1);  String str2 = "Email : "+ email.getText().toString();  i.putExtra("Value3", str2);  startActivity(i);  }  } |

|  |  |
| --- | --- |
| MainActivity2.java | package com.example.explicit;  importandroidx.appcompat.app.AppCompatActivity; import android.os.Bundle;import androidx.appcompat.app.AppCompatActivity; import android.content.Intent;  public class MainActivity2 extends AppCompatActivity { @Override  protected void onCreate(Bundle savedInstanceState) {  TextView t1; TextView t2; TextView t3;  super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main2);  t1 = (TextView) findViewById(R.id.t1); t2 = (TextView) findViewById(R.id.t2); t3 = (TextView) findViewById(R.id.t3);  // create the get Intent object Intent intent = getIntent();  String str = intent.getStringExtra("Value1");  String str1 = intent.getStringExtra("Value2"); String str2 = intent.getStringExtra("Value3");  // display the string into textView t1.setText(str);  t2.setText(str1); t3.setText(str2);  }  } |

|  |  |
| --- | --- |
| Activity\_main.xml | <?xml version="1.0" encoding="utf-8"?>  <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">  <TextView android:id="@+id/r1" android:layout\_width="191dp" android:layout\_height="39dp"  android:background="#009688" android:text="Registration Form" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.581" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.111" />  <TextView android:id="@+id/a1" android:layout\_width="113dp" android:layout\_height="33dp" android:text="Name"  app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.167" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" |
|  | app:layout\_constraintVertical\_bias="0.289" />  <EditText android:id="@+id/s1"  android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:ems="10" android:inputType="textPersonName" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.919" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.276" />  <TextView android:id="@+id/a2" android:layout\_width="115dp" android:layout\_height="32dp" android:text="Address"  app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.162" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.417" />  <EditText android:id="@+id/s2"  android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:ems="10" android:inputType="textPersonName" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.919" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.406" />  <TextView android:id="@+id/a3" android:layout\_width="116dp" android:layout\_height="30dp" android:text="Email"  app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.167" app:layout\_constraintStart\_toStartOf="parent" |
|  | app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.525" />  <EditText android:id="@+id/s3"  android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:ems="10" android:inputType="textPersonName" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.915" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.525" />  <Button  android:id="@+id/b1" android:layout\_width="140dp" android:layout\_height="54dp" android:background="#009688" android:onClick="callSecondActivity" android:text="Submit" android:textColorLink="#03A9F4" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.557" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.749" />  </androidx.constraintlayout.widget.ConstraintLayout> |

**OUTPUT:**

****

**RESULT:** The above program is successfully executed and obtained the output

# 

# 

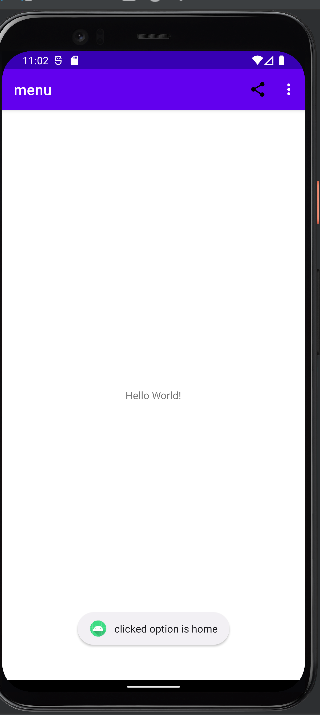
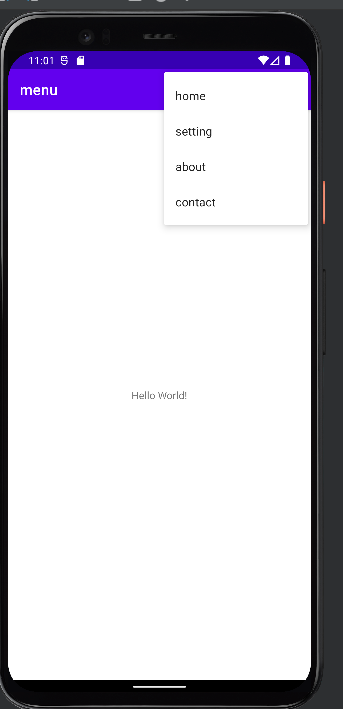
# PROGRAM 12

**AIM:** Implement Options Menu to navigate to activities

|  |  |
| --- | --- |
| **PROGRAM CODE:**  MainActivity.java | package com.example.menu;  import androidx.annotation.NonNull;  import android.view.Menu;  import android.view.MenuInflater;  import android.view.MenuItem;  import android.widget.Toast;  public class MainActivity extends AppCompatActivity {  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_main);  }public boolean onCreateOptionsMenu(Menu menu){  MenuInflater inflater = getMenuInflater();  inflater.inflate(R.menu.menu,menu);  return true; }  public boolean onOptionsItemSelected(@NonNull MenuItem item) {  int id= item.getItemId();  if(id==R.id.menu\_home)  {Toast.makeText(this, "clicked option is home", Toast.LENGTH\_SHORT).show();  } if(id==R.id.menu\_about){  Toast.makeText(this, "clicked option is about", Toast.LENGTH\_SHORT).show();  } if(id==R.id.menu\_contact)  {Toast.makeText(this, "clicked option is contact", Toast.LENGTH\_SHORT).show();  } if(id==R.id.menu\_setting)  {Toast.makeText(this, "clicked option is settings", Toast.LENGTH\_SHORT).show(); }  if(id==R.id.menu\_share)  { Toast.makeText(this, "clicked option is home", Toast.LENGTH\_SHORT).show();  String url="https://www.google.com/".toString();  Intent intent = new Intent(Intent.ACTION\_VIEW, Uri.parse(url));  startActivity(intent); }  return super.onOptionsItemSelected(item);  }} |

|  |  |
| --- | --- |
|  |  |
| activity\_main.xml  Menu.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"  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>  <?xml version="1.0" encoding="utf-8"?>  <menu xmlns:app="http://schemas.android.com/apk/res-auto"  xmlns:android="http://schemas.android.com/apk/res/android">  <item android:title="home"  android:id="@+id/menu\_home"/>  <item android:title="setting"  android:id="@+id/menu\_setting"/>  <item android:title="about"  android:id="@+id/menu\_about"/>  <item android:title="contact"  android:id="@+id/menu\_contact"/>  <item android:title="share"  android:id="@+id/menu\_share"  app:showAsAction="always"  android:icon="@drawable/ic\_baseline\_share\_24"/></menu> |

**OUTPUT:**

****

**RESULT:** The above program is successfully executed and obtained the output.

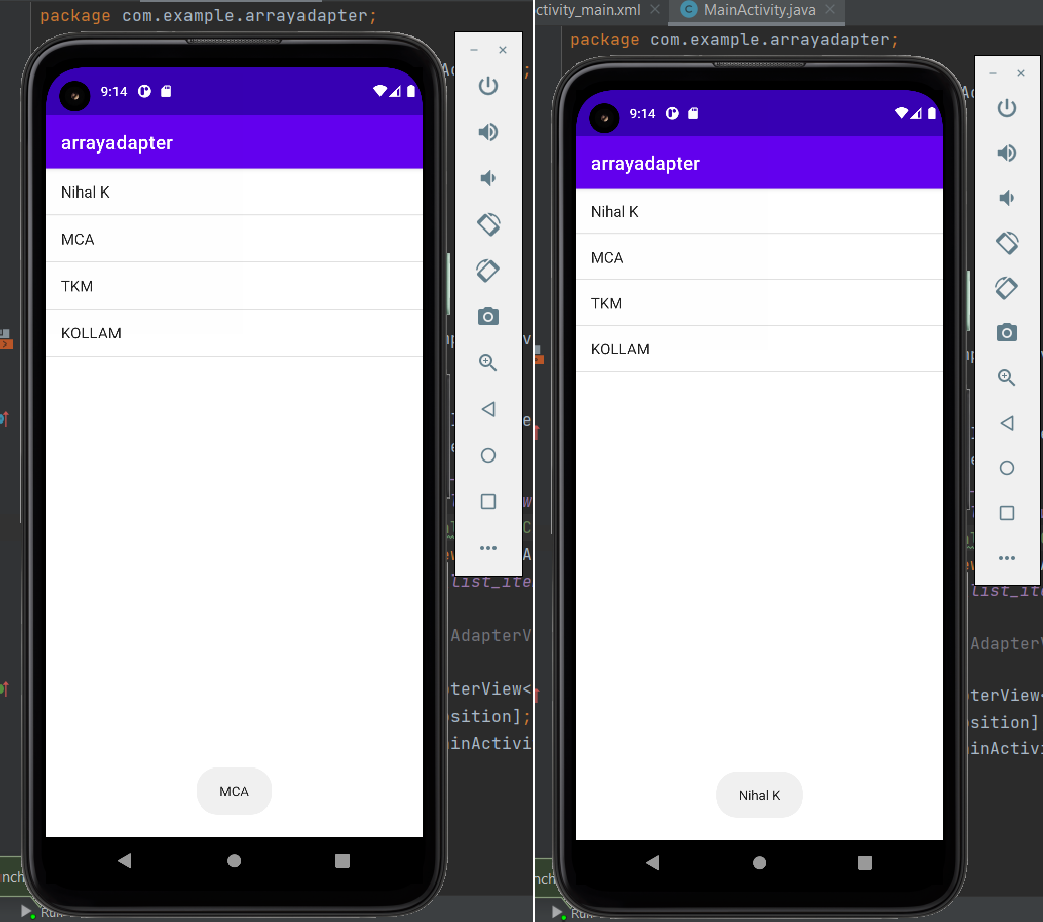
# PROGRAM 13

**AIM:** Develop an application that uses ArrayAdapter with ListView.

|  |  |
| --- | --- |
| **PROGRAM CODE:**  MainActivity.java | package com.example.arrayadapter;  import androidx.appcompat.app.AppCompatActivity;  import android.os.Bundle; importandroid.widget.Adapter;import android.widget.AdapterView; import android.widget.ArrayAdapter; import android.widget.ListView; import android.widget.Toast;  public class MainActivity extends AppCompatActivity {  protected void onCreate(Bundle savedInstanceState){super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);  ListView list=findViewById(R.id.listview); String[] item=new String[]{"Nihal  K","MCA","TKM","KOLLAM"};  ArrayAdapter <String> adapter=new ArrayAdapter<String>(MainActivity.this,android.R.layout.simple\_list\_item\_1,item); list.setAdapter(adapter); list.setOnItemClickListener(newAdapterView.OnItemClickListener() { @Override  public void onItemClick(AdapterView<?> adapterView, View view, int position, long id) {  String item\_name=item[position];  Toast.makeText(MainActivity.this,item\_name,Toast.LENGTH\_LONG  ).show();}});}} |

|  |  |
| --- | --- |
| Main.xml | <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)  xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">  <ListView android:id="@+id/listview" android:layout\_width="403dp" android:layout\_height="770dp"tools:layout\_editor\_absoluteX="1dp" tools:layout\_editor\_absoluteY="1dp" />  </androidx.constraintlayout.widget.ConstraintLayout> |

**OUTPUT:**



**RESULT:** The above program is successfully executed and obtained the output.

# 

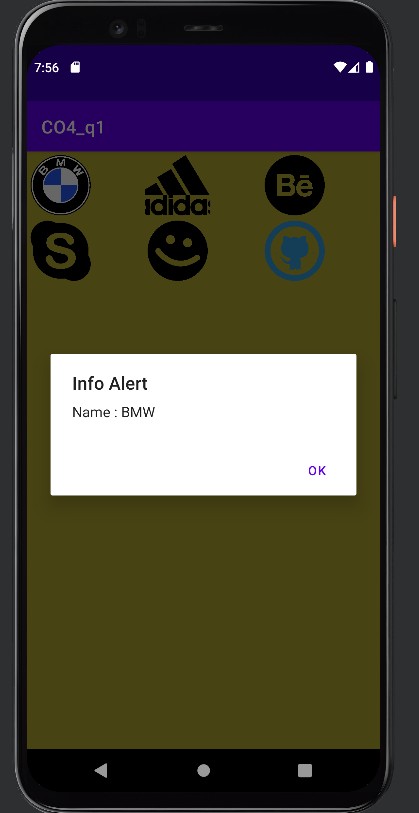
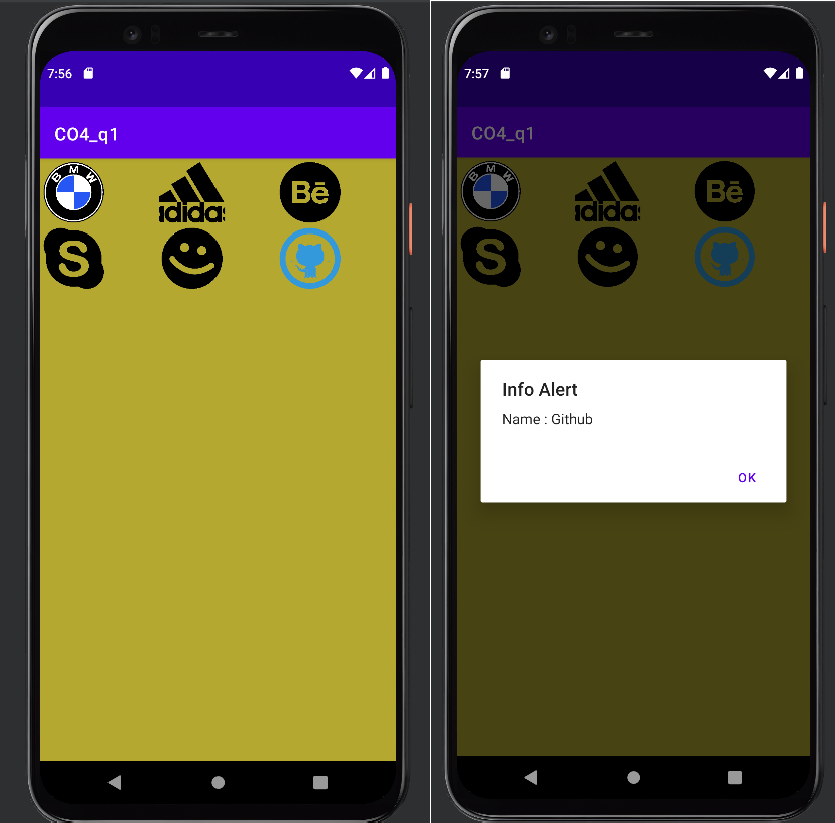
# PROGRAM 14

**AIM:** Develop an application that use GridView with images and display Alert box on selection.

|  |  |
| --- | --- |
| **PROGRAM CODE:**  MainActivity.java | package com.example.co4\_q1;  import androidx.appcompat.app.AlertDialog;  import androidx.appcompat.app.AppCompatActivity;  import android.app.Dialog; import android.content.Context;  import android.content.DialogInterface; import android.content.Intent;  import android.os.Bundle; import android.view.View;  import android.widget.AdapterView; import android.widget.ArrayAdapter; import android.widget.GridView; import android.widget.ListAdapter; import android.widget.SimpleAdapter; import android.widget.Toast;  public class MainActivity extends AppCompatActivity { GridView gd;  int logos[] = {R.drawable.cl1, R.drawable.cl2, R.drawable.cl3, R.drawable.cl4};  String[] names  ={"BMW","addidas","Be","S","Smile","Github",}; final Context context = this;  AlertDialog.Builder builder;  protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);  GridView gv = (GridView) findViewById(R.id.gridView); gv.setAdapter(new ImageAdapter(this));  builder = new AlertDialog.Builder(this);  gv.setOnItemClickListener(new AdapterView.OnItemClickListener() {  public void onItemClick(AdapterView<?> parent, View v, int position, long id) { |

|  |  |
| --- | --- |
|  | builder.setMessage("Name:"+String.valueOf(names[position])).setCancelable(false)  .setPositiveButton("Ok", new DialogInterface.OnClickListener() {  public void onClick(DialogInterface dialog,int id) {  }  });  AlertDialog alert = builder.create();  alert.setTitle("Info Alert"); alert.show();}});}} |
| imageadapter.java | package com.example.co4\_q1; import android.content.Context; import android.view.View; import android.view.ViewGroup;  import android.widget.BaseAdapter; import android.widget.GridView; import android.widget.ImageView;  public class ImageAdapter extends BaseAdapter { private Context mContext;  public ImageAdapter(Context c) { mContext = c;}  public int getCount() {  return thumbImages.length;}  public Object getItem(int position) { return null;}  public long getItemId(int position) { return 0;  }public View getView(int position, View convertView,  ViewGroup parent) {  ImageView imageView = new ImageView(mContext); imageView.setLayoutParams(new  GridView.LayoutParams(200, 200));  imageView.setScaleType(ImageView.ScaleType.CENTER\_CR OP);  imageView.setPadding(8, 8, 8, 8); imageView.setImageResource(thumbImages[position]); return imageView;  }public Integer[] thumbImages = { R.drawable.cl1, R.drawable.cl2, R.drawable.cl3, R.drawable.cl4, R.drawable.cl5, R.drawable.cl6  };  } |
| activity\_main.xml | <?xml version="1.0" encoding="utf-8"?><LinearLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" android:background="#B5A830" tools:context=".MainActivity"><GridView android:id="@+id/gridView" android:layout\_width="fill\_parent"android:layout\_height="wrap\_content" android:footerDividersEnabled="false" android:numColumns="3" android:padding="1dp" /></LinearLayout> |

**OUTPUT:**



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**RESULT:** The above program is successfully executed and obtained the output.

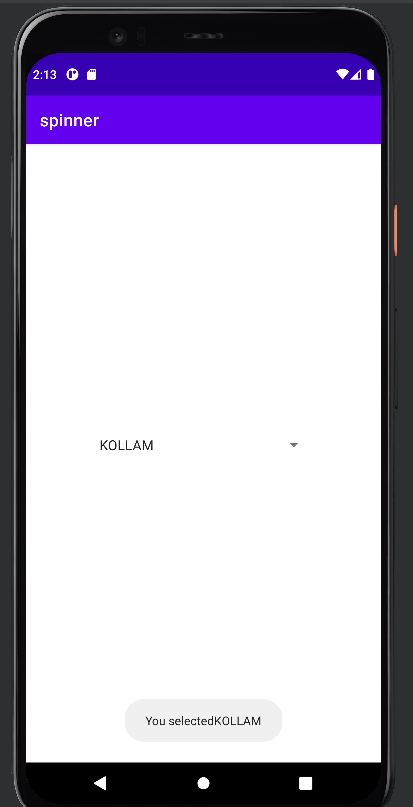
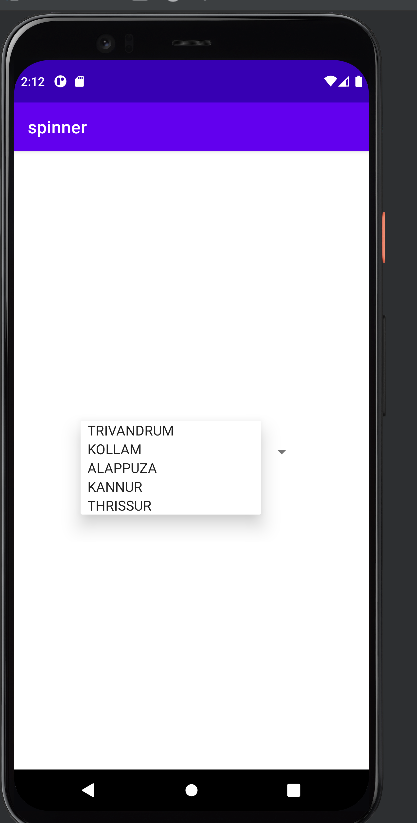
# PROGRAM 15

**AIM:** Develop an application that implements Spinner component and perform event handling.

|  |  |
| --- | --- |
| **PROGRAM CODE:**  MainActivity.java | import android.os.Bundle;  import android.view.View;  import android.widget.AdapterView;  import android.widget.Spinner;  public class MainActivity extends AppCompatActivity implements AdapterView.OnItemSelectedListener{  Spinnerspinner;String[]name={"TRIVANDRUM","KOLLAM","ALAPPUZA","KANNUR","THRISSUR"};  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); spinner=(Spinner)findViewById(R.id.spinner);  ArrayAdapter ad = new ArrayAdapter(this,android.R.layout.simple\_spinner\_item,name); spinner.setAdapter(ad);spinner.setOnItemSelectedListener(this);}  public voidonItemSelected(AdapterView<?> adapterView, View view, int i, long l) { TextView mytext=(TextView) view;  Toast.makeText(this,"You selected"+mytext.getText(),Toast.LENGTH\_LONG).show();  } public void onNothingSelected(AdapterView<?> adapterView) { }} |

|  |  |
| --- | --- |
| Activitymain.xml | <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:tools="http://schemas.android.com/tools"  tools:context=".MainActivity">  <Spinner android:id="@+id/spinner"  android:layout\_width="257dp"  android:layout\_height="72dp"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.485" />  </androidx.constraintlayout.widget.ConstraintLayout> |

**OUTPUT:**

****

**RESULT:** The above program is successfully executed and obtained the output.

# 

# PROGRAM 16

**AIM:** Apply themes via code and manifest file

|  |  |
| --- | --- |
| **PROGRAM CODE:**  MainActivity.java | package com.example.theme;  import androidx.appcompat.app.AppCompatActivity; import android.content.Intent;  import android.os.Bundle; import android.view.View;  public class MainActivity extends AppCompatActivity { @Override  protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);  }  public void click(View view)  {  Intent i=new Intent(getApplicationContext(),MainActivity2.class); startActivity(i);  }  } |

|  |  |
| --- | --- |
| MainActivity2.java | package com.example.theme;  import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;  public class MainActivity2 extends AppCompatActivity {  protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main2);  }  } |

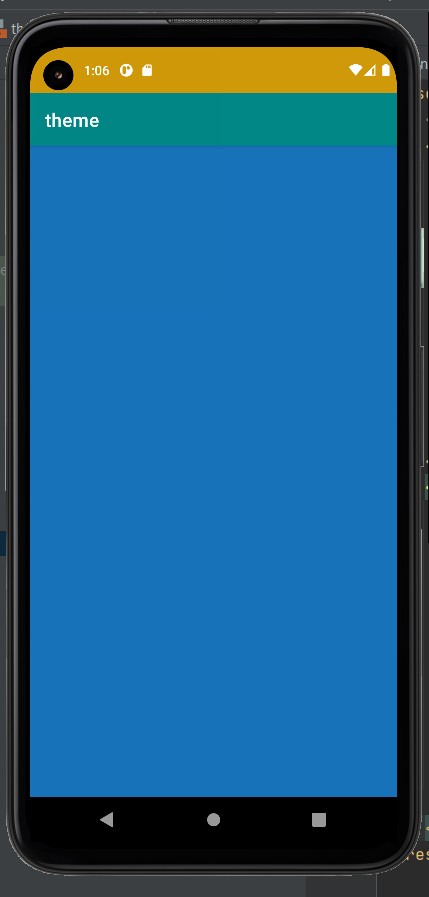
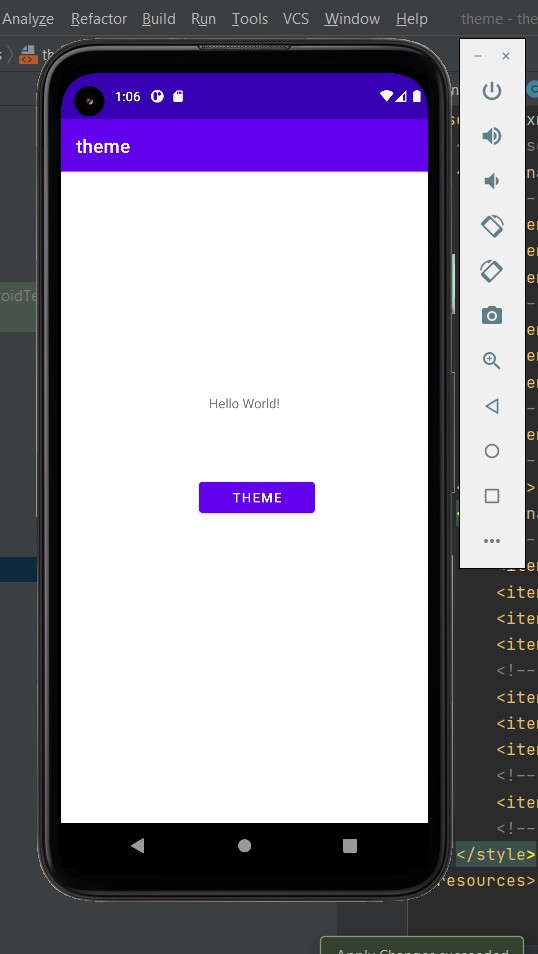
|  |  |
| --- | --- |
| Activity\_main.xml | <?xml version="1.0" encoding="utf-8"?>  <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)  xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">  <TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Hello World!"  app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintLeft\_toLeftOf="parent" app:layout\_constraintRight\_toRightOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.351" />  <Button  android:id="@+id/button" android:layout\_width="124dp" android:layout\_height="45dp" android:onClick="click" android:text="theme"  app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.55" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" />  </androidx.constraintlayout.widget.ConstraintLayout> |

|  |  |
| --- | --- |
| Activity\_main2.xml | <?xml version="1.0" encoding="utf-8"?>  <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)  xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity2"></androidx.constraintlayout.widget.ConstraintLayout> |

|  |  |
| --- | --- |
| AndroidManifest. xml | <manifestxmlns:android="<http://schemas.android.com/apk/res/android>" package="com.example.theme">  <application android:allowBackup="true" android:icon="@mipmap/ic\_launcher" android:label="@string/app\_name"  android:roundIcon="@mipmap/ic\_launcher\_round" android:supportsRtl="true" android:theme="@style/Theme.Theme">  <activity android:name=".MainActivity2" android:exported="false"  android:theme="@style/Theme.Thememanifest1"/>  <activity android:name=".MainActivity" android:exported="true">  <intent-filter>  <action android:name="android.intent.action.MAIN" />  <category android:name="android.intent.category.LAUNCHER" /></intent-filter></activity>  </application>  </manifest> |

|  |  |
| --- | --- |
| Themes.xml | <resources xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools)>  <!-- Base application theme. -->  <style name="Theme.Theme" parent="Theme.MaterialComponents.DayNight.DarkActionBar">  <!-- Primary brand color. -->  <item name="colorPrimary">@color/purple\_500</item>  <item name="colorPrimaryVariant">@color/purple\_700</item>  <item name="colorOnPrimary">@color/white</item>  <!-- Secondary brand color. -->  <item name="colorSecondary">@color/teal\_200</item>  <item name="colorSecondaryVariant">@color/teal\_700</item>  <item name="colorOnSecondary">@color/black</item>  <!-- Status bar color. -->  <item name="android:statusBarColor" tools:targetApi="l">?attr/colorPrimaryVariant</item>  <!-- Customize your theme here. -->  </style>  <style name="Theme.Thememanifest1" parent="Theme.MaterialComponents.DayNight.DarkActionBar">  <!-- Primary brand color. -->  <item name="colorPrimary">@color/teal\_700</item>  <item name="android:windowBackground">#1772B9</item>  <item name="colorPrimaryVariant">#D09909</item>  <item name="colorOnPrimary">@color/white</item>  <!-- Secondary brand color. -->  <item name="colorSecondary">@color/teal\_200</item>  <item name="colorSecondaryVariant">@color/purple\_200</item>  <item name="colorOnSecondary">#D54444</item>  <!-- Status bar color. -->  <item name="android:statusBarColor" tools:targetApi="l">?attr/colorPrimaryVariant</item>  <!-- Customize your theme here. -->  </style>  </resources> |

**OUTPUT:**



**RESULT:** The above program is successfully executed and obtained the output.

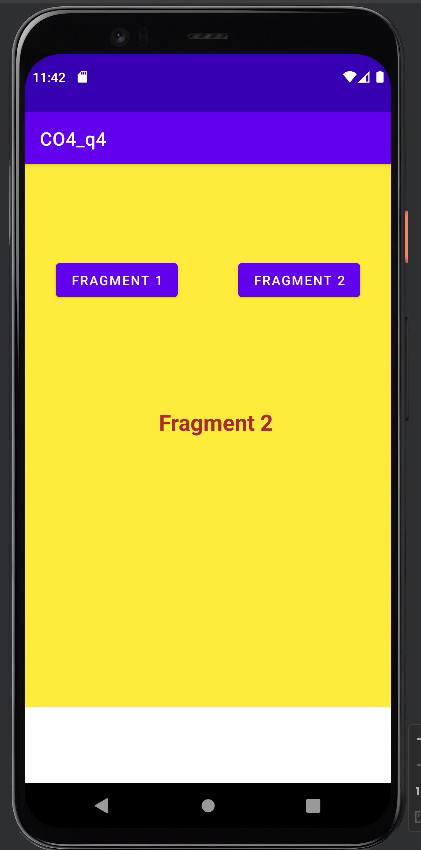
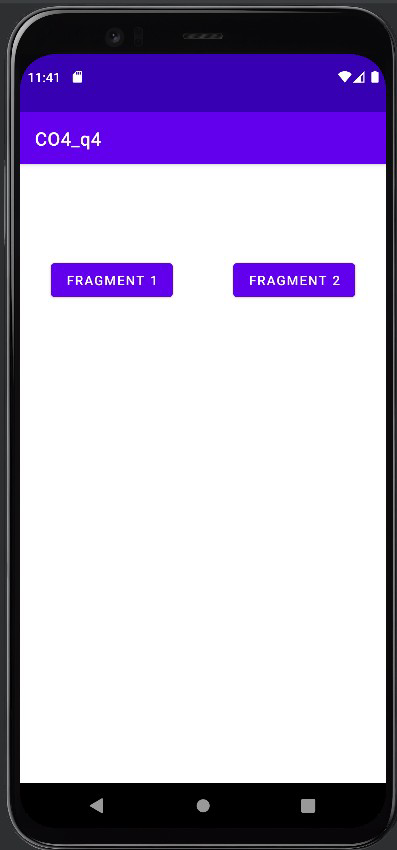
# 

# PROGRAM 17

**AIM:** Develop application using Fragments

|  |  |
| --- | --- |
| MainActivity.java  Fragment1.java  Fragment2.java | package com.example.co4\_q4;  import androidx.appcompat.app.AppCompatActivity; import androidx.fragment.app.Fragment;  import androidx.fragment.app.FragmentManager; import androidx.fragment.app.FragmentTransaction;  import android.os.Bundle; import android.view.View; import android.widget.Toast;  public class MainActivity extends AppCompatActivity { @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);  }  public void fragement1Start(View view){ replaceFragement(new Fragment1());  }  public void fragement2Start(View view){ replaceFragement(new Fragment2());  }  public void replaceFragement(Fragment pragment){ FragmentManager fm = getSupportFragmentManager(); FragmentTransaction ft = fm.beginTransaction(); ft.replace(R.id.fra,pragment);  ft.commit();  }  }  package com.example.co4\_q4; import android.os.Bundle;  import androidx.fragment.app.Fragment;  import android.view.LayoutInflater; import android.view.View;  import android.view.ViewGroup;  public class Fragment1 extends Fragment { @Override  public View onCreateView(LayoutInflater inflater, ViewGroup  container,  Bundle savedInstanceState) {  // Inflate the layout for this fragment  return inflater.inflate(R.layout.fragment\_1, container, false);  }  }  package com.example.co4\_q4; import android.os.Bundle;  import androidx.fragment.app.Fragment;  import android.view.LayoutInflater; import android.view.View;  import android.view.ViewGroup;  public class Fragment2 extends Fragment { @Override  public View onCreateView(LayoutInflater inflater, ViewGroup container,  Bundle savedInstanceState) {  // Inflate the layout for this fragment  return inflater.inflate(R.layout.fragment\_2, container, false);  }  }  Main.xml  <?xml version="1.0" encoding="utf-8"?>  <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)  xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">  <Button  android:id="@+id/f2" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginStart="32dp" android:layout\_marginTop="100dp" android:onClick="fragement2Start" android:text="Fragment 2" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.5" app:layout\_constraintStart\_toEndOf="@+id/f1" app:layout\_constraintTop\_toTopOf="parent" />  <Button  android:id="@+id/f1" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginTop="100dp" android:onClick="fragement1Start" android:text="Fragment 1" app:layout\_constraintEnd\_toStartOf="@+id/f2" app:layout\_constraintHorizontal\_bias="0.5" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" />  <FrameLayout android:id="@+id/fra" android:layout\_width="409dp" android:layout\_height="581dp"  tools:layout\_editor\_absoluteX="2dp" tools:layout\_editor\_absoluteY="148dp">  </FrameLayout>  </androidx.constraintlayout.widget.ConstraintLayout>  Fragment1.xml  <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)  xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:id="@+id/frameLayout2" android:layout\_width="match\_parent" android:layout\_height="match\_parent" android:background="#77C67A" tools:context=".Fragment1">  <TextView android:id="@+id/textView2" android:layout\_width="154dp" android:layout\_height="46dp" android:text="Fragment 1" android:textAlignment="center" android:textColor="#3F51B5" android:textSize="24sp" android:textStyle="bold|italic"  app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.498" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.499" />  </androidx.constraintlayout.widget.ConstraintLayout> |
| Fragment2.xml | <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)  xmlns:app="[http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:id="@+id/frameLayout" android:layout\_width="match\_parent"  android:background="#FFEB3B" tools:context=".Fragment2">  <TextView android:id="@+id/textView" android:layout\_width="131dp" android:layout\_height="61dp" android:text="Fragment 2" android:textAlignment="center" android:textColor="#A52E2E" android:textSize="24sp" android:textStyle="bold"  app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" />  </androidx.constraintlayout.widget.ConstraintLayout> |

**OUTPUT:**



**RESULT:** The above program is successfully executed and obtained the output.

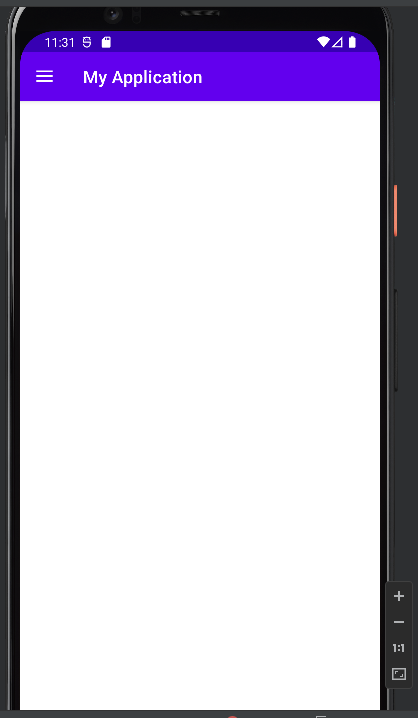
# PROGRAM 18

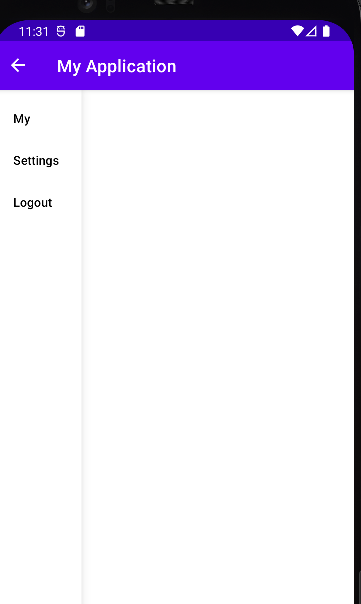
**AIM:** Implement Navigation drawer

|  |  |
| --- | --- |
| **PROGRAM CODE:**  MainActivity.java | package com.example.myapplication;  import androidx.appcompat.app.ActionBarDrawerToggle;  import androidx.appcompat.app.AppCompatActivity;  import androidx.drawerlayout.widget.DrawerLayout;  import android.os.Bundle;  import android.view.MenuItem;  public class MainActivity extends AppCompatActivity {  public DrawerLayout drawerLayout;  public ActionBarDrawerToggle actionBarDrawerToggle;  @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_main);  drawerLayout = findViewById(R.id.my\_draw\_layout);  actionBarDrawerToggle = new ActionBarDrawerToggle(this, drawerLayout, R.string.nav\_open, R.string.nav\_close);  drawerLayout.addDrawerListener(actionBarDrawerToggle);  actionBarDrawerToggle.syncState();  getSupportActionBar().setDisplayHomeAsUpEnabled(true);  }  public boolean onOptionsItemSelected(MenuItem item) {  if(actionBarDrawerToggle.onOptionsItemSelected(item)) {  return true;  }  return super.onOptionsItemSelected(item);  }  } |

|  |  |
| --- | --- |
| Activity\_main.xml  Navigation.xml  Strings.xml | <?xml version="1.0" encoding="utf-8"?>  <androidx.drawerlayout.widget.DrawerLayout xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:app="http://schemas.android.com/apk/res-auto"  xmlns:tools="http://schemas.android.com/tools"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  tools:context=".MainActivity"  android:id="@+id/my\_draw\_layout"  tools:ignore="HardcodedText">  <com.google.android.material.navigation.NavigationView  android:layout\_width="100dp"  android:layout\_height="match\_parent"  android:layout\_gravity="start"  app:menu="@menu/nav" />  </androidx.drawerlayout.widget.DrawerLayout>  <?xml version="1.0" encoding="utf-8"?>  <menu xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:tools="http://schemas.android.com/tools"  tools:ignore="HardcodedText">  <item  android:id="@+id/nav\_account"  android:title="My Account" />  <item  android:id="@+id/nav\_settings"  android:title="Settings" />  <item  android:id="@+id/nav\_logout"  android:title="Logout" />  </menu>  <resources>  <string name="app\_name">My Application</string>  <string name="nav\_open">Open</string>  <string name="nav\_close">Close</string>  </resources> |

**OUTPUT:**

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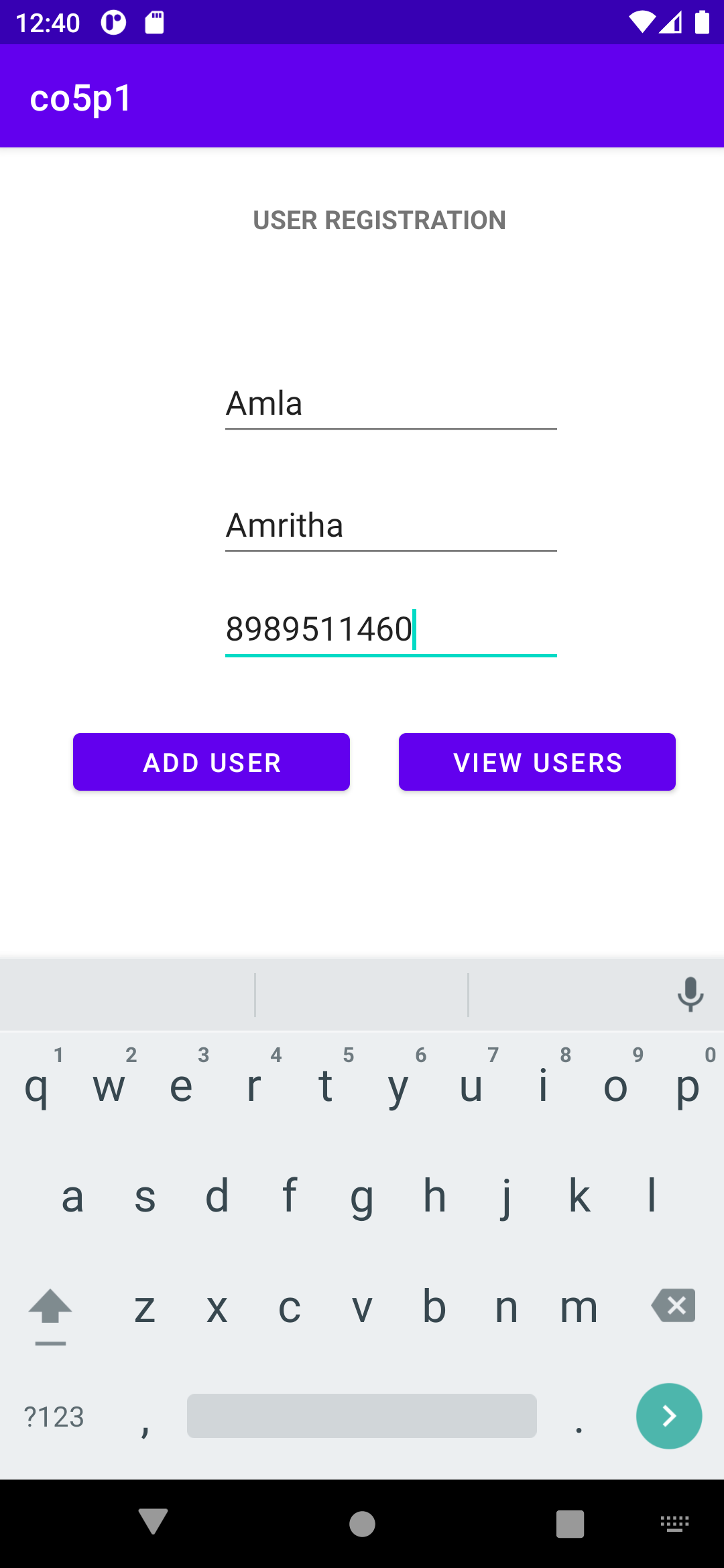
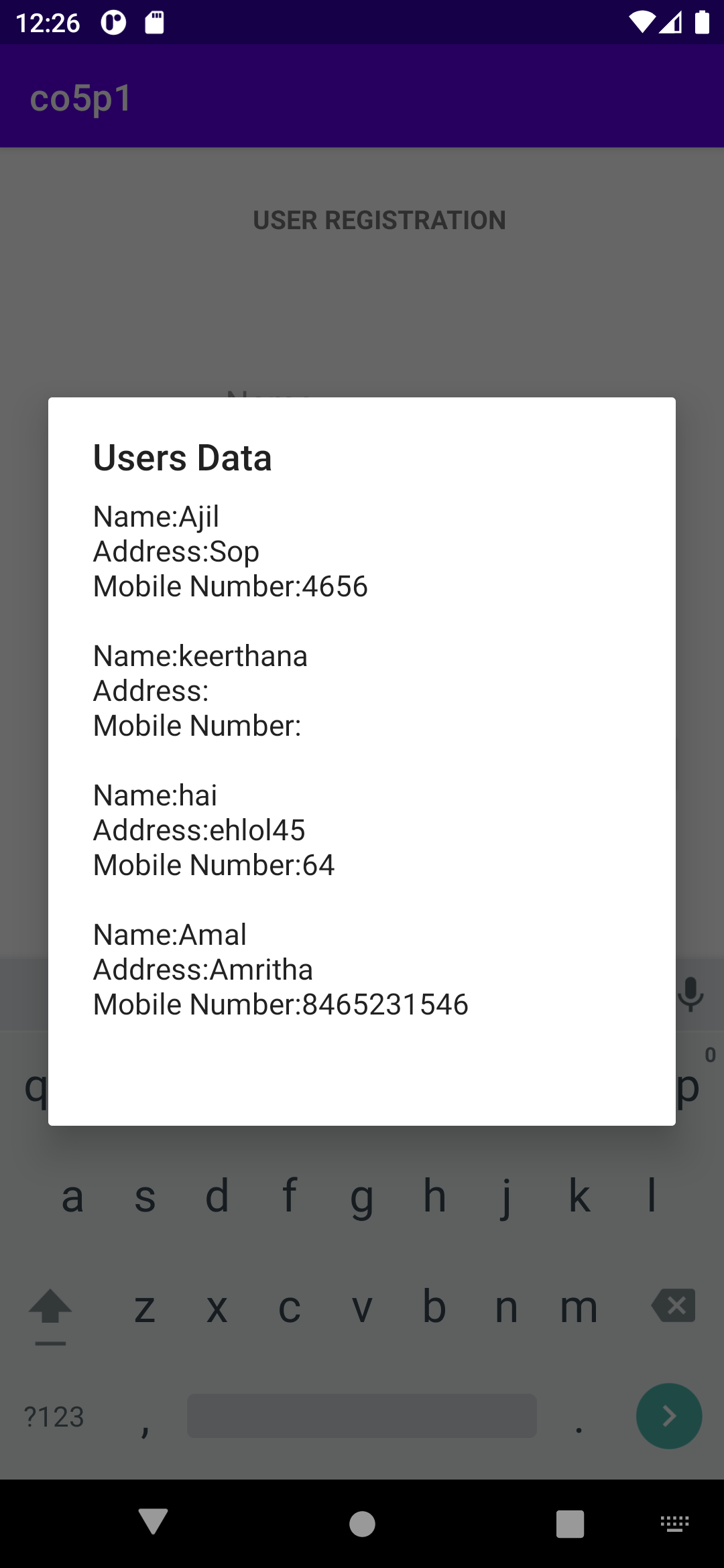
**RESULT:** The above program is successfully executed and obtained the output.

**PROGRAM 19**

**AIM:** Create database using SQLite and perform INSERT and SELECT

|  |  |
| --- | --- |
| **PROGRAM CODE:**  activity\_main.xml | <?xml version="1.0" encoding="utf-8"?>  <androidx.constraintlayout.widget.ConstraintLayout  xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:app="http://schemas.android.com/apk/res-auto"  xmlns:tools="http://schemas.android.com/tools"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  tools:context=".MainActivity">  <Button  android:id="@+id/adduser"  android:layout\_width="150dp"  android:layout\_height="43dp"  android:onClick="insertUser"  android:text="Add User"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.164"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.459" />  <Button  android:id="@+id/view"  android:layout\_width="150dp"  android:layout\_height="43dp"  android:onClick="viewUser"  android:text="View Users"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintStart\_toEndOf="@+id/adduser"  app:layout\_constraintTop\_toBottomOf="@+id/num"  app:layout\_constraintVertical\_bias="0.072" />  <EditText  android:id="@+id/name"  android:layout\_width="188dp"  android:layout\_height="43dp"  android:ems="10"  android:hint="Name"  android:inputType="textPersonName"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.578"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.174" />  <EditText  android:id="@+id/num"  android:layout\_width="188dp"  android:layout\_height="43dp"  android:ems="10"  android:hint="Mobile Number"  android:inputType="textPersonName"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.578"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.354" />  <TextView  android:layout\_width="319dp"  android:layout\_height="27dp"  android:text="User Registration"  android:textAlignment="center"  android:textAllCaps="true"  android:textStyle="bold"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintHorizontal\_bias="0.629"  app:layout\_constraintLeft\_toLeftOf="parent"  app:layout\_constraintRight\_toRightOf="parent"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.042" />  <EditText  android:id="@+id/add"  android:layout\_width="188dp"  android:layout\_height="43dp"  android:ems="10"  android:hint="Address"  android:inputType="textPersonName"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.578"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.271" />  </androidx.constraintlayout.widget.ConstraintLayout> |
| MainActivity.java | package com.example.co5p1;  import androidx.appcompat.app.AlertDialog;  import androidx.appcompat.app.AppCompatActivity;  import android.database.Cursor;  import android.os.Bundle;  import android.view.View;  import android.widget.Button;  import android.widget.EditText;  import android.widget.Toast;  public class MainActivity extends AppCompatActivity {  EditText name, address, number;  Button add, update, delete, viewuser;  @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_main);}  public void insertUser(View view){  name = findViewById(R.id.name);  address = findViewById(R.id.add);  number = findViewById(R.id.num);  DBHelper DB = new DBHelper(this);  String nam = name.getText().toString();  String add = address.getText().toString();  String num = number.getText().toString();  Boolean checkinsert = DB.insertuserDB(nam,add,num);  if(checkinsert){  Toast.makeText(this, "User added Succesfully", Toast.LENGTH\_SHORT).show();}  else{  Toast.makeText(this, "User not added", Toast.LENGTH\_SHORT).show();}  name.setText("");  address.setText("");  number.setText("");}  public void viewUser(View view){  DBHelper DB = new DBHelper(this);  Cursor res = DB.getuserDB();  AlertDialog.Builder alert = new AlertDialog.Builder(this);  if(res.getCount()==0){  alert.setCancelable(true);  alert.setTitle("Users Data");  alert.setMessage("No user found");  alert.show();}  else {  StringBuffer buffer = new StringBuffer();  while (res.moveToNext()) {  buffer.append("Name:" + res.getString(0) + "\n");  buffer.append("Address:" + res.getString(1) + "\n");  buffer.append("Mobile Number:" + res.getString(2) +  "\n\n");}  alert.setCancelable(true);  alert.setTitle("Users Data");  alert.setMessage(buffer.toString());  alert.show();  name.setText("");  address.setText("");  number.setText("");}}} |
| DBHelper.java | package com.example.co5p1;  import android.content.ContentValues;  import android.content.Context; import android.database.Cursor;  import android.database.sqlite.SQLiteDatabase;  import android.database.sqlite.SQLiteOpenHelper;  import androidx.annotation.Nullable;  public class DBHelper extends SQLiteOpenHelper {  public DBHelper(Context context) {  super(context, "User.DB", null, 1);}  @Override  public void onCreate(SQLiteDatabase DB) {  DB.execSQL("create table userdata(name Text primary key,address TEXT, number TEXT)");}  @Override  public void onUpgrade(SQLiteDatabase DB, int i, int i1) {  DB.execSQL("drop Table if exists userdata");}  public Boolean insertuserDB(String name, String address, String number) {  SQLiteDatabase DB = this.getWritableDatabase();  ContentValues cv = new ContentValues();  cv.put("name", name);  cv.put("address", address);  cv.put("number", number);  long result = DB.insert("userdata", null, cv);  if (result == -1) {  return false;} else {  return true;}}  public Cursor getuserDB() {  SQLiteDatabase DB = this.getWritableDatabase();  Cursor cursor = DB.rawQuery("Select \* from userdata", null);  return cursor;}} |

**OUTPUT:**

** **

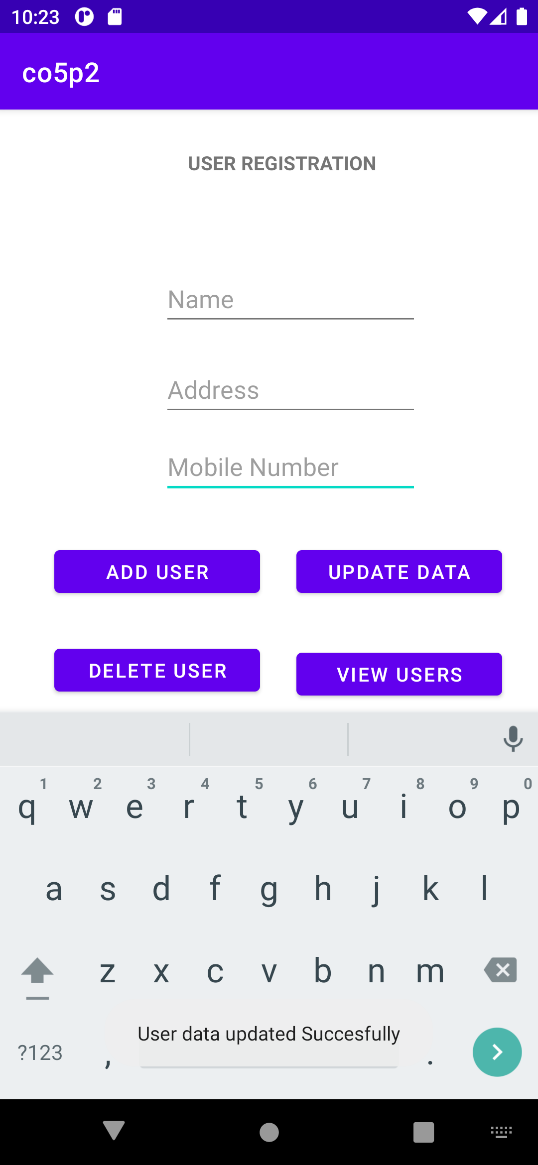
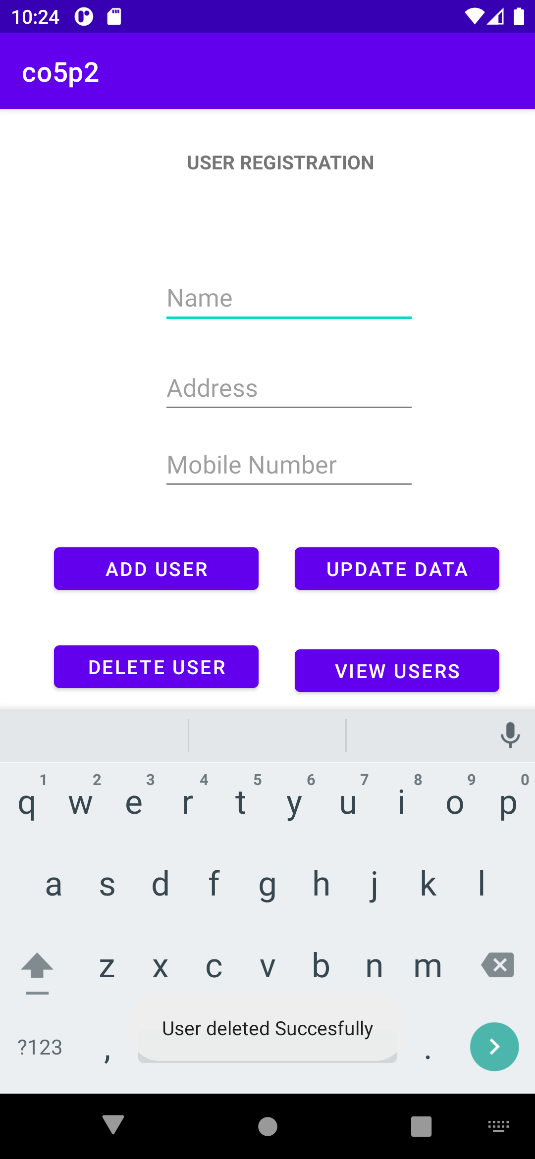
**RESULT:** The program was successfully executed and obtained the output

**PROGRAM 20**

**AIM:** Perform UPDATE and DELETE on SQLite database.

|  |  |
| --- | --- |
| **PROGRAM CODE:**  activity\_main.xml | <?xml version="1.0" encoding="utf-8"?>  <androidx.constraintlayout.widget.ConstraintLayout  xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:app="http://schemas.android.com/apk/res-auto"  xmlns:tools="http://schemas.android.com/tools"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  tools:context=".MainActivity">  <Button  android:id="@+id/adduser"  android:layout\_width="150dp"  android:layout\_height="43dp"  android:onClick="insertUser"  android:text="Add User"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.164"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/num"  app:layout\_constraintVertical\_bias="0.082" />  <Button  android:id="@+id/view"  android:layout\_width="150dp"  android:layout\_height="43dp"  android:onClick="viewUser"  android:text="View Users"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintStart\_toEndOf="@+id/delete"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.575" />  <Button  android:id="@+id/delete"  android:layout\_width="150dp"  android:layout\_height="43dp"  android:layout\_marginBottom="292dp"  android:onClick="deleteUser"  android:text="Delete User"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.164"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/adduser"  app:layout\_constraintVertical\_bias="1.0" />  <EditText  android:id="@+id/name"  android:layout\_width="188dp"  android:layout\_height="43dp"  android:ems="10"  android:hint="Name"  android:inputType="textPersonName"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.578"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.174" />  <EditText  android:id="@+id/num"  android:layout\_width="188dp"  android:layout\_height="43dp"  android:ems="10"  android:hint="Mobile Number"  android:inputType="textPersonName"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.578"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.354" />  <TextView  android:layout\_width="319dp"  android:layout\_height="27dp"  android:text="User Registration"  android:textAlignment="center"  android:textAllCaps="true"  android:textStyle="bold"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintHorizontal\_bias="0.629"  app:layout\_constraintLeft\_toLeftOf="parent"  app:layout\_constraintRight\_toRightOf="parent"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.042" />  <EditText  android:id="@+id/add"  android:layout\_width="188dp"  android:layout\_height="43dp"  android:ems="10"  android:hint="Address"  android:inputType="textPersonName"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.578"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.271" />  <Button  android:id="@+id/update"  android:layout\_width="150dp"  android:layout\_height="43dp"  android:onClick="updateUser"  android:text="Update Data"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintStart\_toEndOf="@+id/adduser"  app:layout\_constraintTop\_toBottomOf="@+id/num"  app:layout\_constraintVertical\_bias="0.082" />  </androidx.constraintlayout.widget.ConstraintLayout> |
| MainActivity.java | import androidx.appcompat.app.AlertDialog;  import androidx.appcompat.app.AppCompatActivity;  import android.database.Cursor;  import android.os.Bundle;  import android.view.View;  import android.widget.Button;  import android.widget.EditText;  import android.widget.Toast;  public class MainActivity extends AppCompatActivity {  EditText name, address, number;  Button add, update, delete, viewuser;  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_main);}  public void insertUser(View view){  name = findViewById(R.id.name);  address = findViewById(R.id.add);  number = findViewById(R.id.num);  DBHelper DB = new DBHelper(this);  String nam = name.getText().toString();  String add = address.getText().toString();  String num = number.getText().toString();  Boolean checkinsert = DB.insertuserDB(nam,add,num);  if(checkinsert){  Toast.makeText(this, "User added Succesfully", Toast.LENGTH\_SHORT).show();}  else{  Toast.makeText(this, "User not added", Toast.LENGTH\_SHORT).show();}  name.setText("");  address.setText("");  number.setText("");}  public void updateUser(View view){  name = findViewById(R.id.name);  address = findViewById(R.id.add);  number = findViewById(R.id.num);  DBHelper DB = new DBHelper(this);  String nam = name.getText().toString();  String add = address.getText().toString();  String num = number.getText().toString();  Boolean checkupdate = DB.UpdateuserDB(nam,add,num);  if(checkupdate){  Toast.makeText(this, "User data updated Succesfully", Toast.LENGTH\_SHORT).show();}  else{Toast.makeText(this, "User date not updated", Toast.LENGTH\_SHORT).show();}  name.setText("");  address.setText("");  number.setText("");}  public void deleteUser(View view){  name = findViewById(R.id.name);  DBHelper DB = new DBHelper(this);  String nam = name.getText().toString();  Boolean checkdelete= DB.DeleteuserDB(nam);  if(checkdelete){  Toast.makeText(this, "User deleted Succesfully", Toast.LENGTH\_SHORT).show();}  else{Toast.makeText(this, "User not deleted", Toast.LENGTH\_SHORT).show();}  name.setText("");  address.setText("");  number.setText("");}  public void viewUser(View view){  DBHelper DB = new DBHelper(this);  Cursor res = DB.getuserDB();  AlertDialog.Builder alert = new AlertDialog.Builder(this);  if(res.getCount()==0){  alert.setCancelable(true);  alert.setTitle("Users Data");  alert.setMessage("No user found");  alert.show();}  else {  StringBuffer buffer = new StringBuffer();  while (res.moveToNext()) {  buffer.append("Name:" + res.getString(0) + "\n");  buffer.append("Address:" + res.getString(1) + "\n");  buffer.append("Mobile Number:" + res.getString(2) +  "\n\n");}  alert.setCancelable(true);  alert.setTitle("Users Data");  alert.setMessage(buffer.toString());  alert.show();  name.setText("");  address.setText("");  number.setText("");}}} |
| DBHelper.java | import android.content.ContentValues;  import android.content.Context; import android.database.Cursor;  import android.database.sqlite.SQLiteDatabase;  import android.database.sqlite.SQLiteOpenHelper;  import androidx.annotation.Nullable;  public class DBHelper extends SQLiteOpenHelper {  public DBHelper(Context context) {  super(context, "User.DB", null, 1);}  public void onCreate(SQLiteDatabase DB) {  DB.execSQL("create table userdata(name Text primary key,address TEXT, number TEXT)");}  public void onUpgrade(SQLiteDatabase DB, int i, int i1) {  DB.execSQL("drop Table if exists userdata");}  public Boolean insertuserDB(String name, String address, String number) { SQLiteDatabase DB = this.getWritableDatabase();  ContentValues cv = new ContentValues();  cv.put("name", name);  cv.put("address", address);  cv.put("number", number);  long result = DB.insert("userdata", null, cv);  if (result == -1) {return false;} else {  return true;}}  public Boolean UpdateuserDB(String name, String address, String number;{SQLiteDatabase DB = this.getWritableDatabase();  ContentValues cv = new ContentValues();  cv.put("address", address);  cv.put("number", number);  Cursor cursor = DB.rawQuery("Select \* from userdata where name = ?", new String[]{name});  if (cursor.getCount() > 0) {  long result = DB.update("userdata", cv, "name=?", new String[]{name}); if (result == -1) {  return false;} else {  return true;}} else {  return false;}}  public Boolean DeleteuserDB(String name) {  SQLiteDatabase DB = this.getWritableDatabase();  Cursor cursor = DB.rawQuery("Select \* from userdata where name = ?", new String[]{name});  if (cursor.getCount() > 0) {  long result = DB.delete("userdata", "name=?", new String[]{name}); if (result == -1) {  return false; } else { return true;} } else {  return false;}public Cursor getuserDB() {  SQLiteDatabase DB = this.getWritableDatabase();  Cursor cursor = DB.rawQuery("Select \* from userdata", null);return cursor;}} |

**OUTPUT:**

** **

**RESULT:** The program was successfully executed and obtained the output