EX 1: Develop an application that finds greatest among three numbers using GUI Components

XML CODE:

activity_main.xml

```xml
<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

 android:layout_width="match_parent"

 android:layout_height="match_parent"

 tools:context=".MainActivity">

<EditText

 android:id="@+id/num1"

 android:layout_width="wrap_content"

 android:layout_height="wrap_content"

 android:ems="10"

 android:inputType="number"

 app:layout_constraintBottom_toBottomOf="parent"

 app:layout_constraintEnd_toEndOf="parent"

 app:layout_constraintHorizontal_bias="0.542"

 app:layout_constraintStart_toStartOf="parent"

 app:layout_constraintTop_toTopOf="parent"

 app:layout_constraintVertical_bias="0.109" />

<EditText

 android:id="@+id/num2"
```

```xml
android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:ems="10"

android:inputType="number"

app:layout_constraintBottom_toBottomOf="parent"

app:layout_constraintEnd_toEndOf="parent"

app:layout_constraintHorizontal_bias="0.542"

app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@+id/num1"

app:layout_constraintVertical_bias="0.035" />
<Button

android:id="@+id/btn"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:text="calculate"

app:layout_constraintBottom_toBottomOf="parent"

app:layout_constraintEnd_toEndOf="parent"

app:layout_constraintHorizontal_bias="0.529"

app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@+id/num2"

app:layout_constraintVertical_bias="0.153" />
<TextView

android:id="@+id/tv"

android:layout_width="275dp"

android:layout_height="100dp"
```

```xml
        android:layout_marginTop="32dp"

        android:textSize="32sp"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintHorizontal_bias="0.535"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toBottomOf="@+id/btn"

        app:layout_constraintVertical_bias="0.05" />

    <EditText

        android:id="@+id/num3"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:ems="10"

        android:inputType="number"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintHorizontal_bias="0.542"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toBottomOf="@+id/num2"

        app:layout_constraintVertical_bias="0.035" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

JAVA CODE:

MainActivity.java

```java
package com.example.addingtwonumbers;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

 private EditText n1;

 private EditText n2;

 private EditText n3;

 private Button calc;

 private TextView result;

 @Override

 protected void onCreate(Bundle savedInstanceState) {

 super.onCreate(savedInstanceState);

 setContentView(R.layout.activity_main);

 n1=(EditText)findViewById(R.id.num1);

 n2=(EditText)findViewById(R.id.num2);

 n3=(EditText)findViewById(R.id.num3);

 calc=(Button)findViewById(R.id.btn);

 result=(TextView)findViewById(R.id.tv);
```
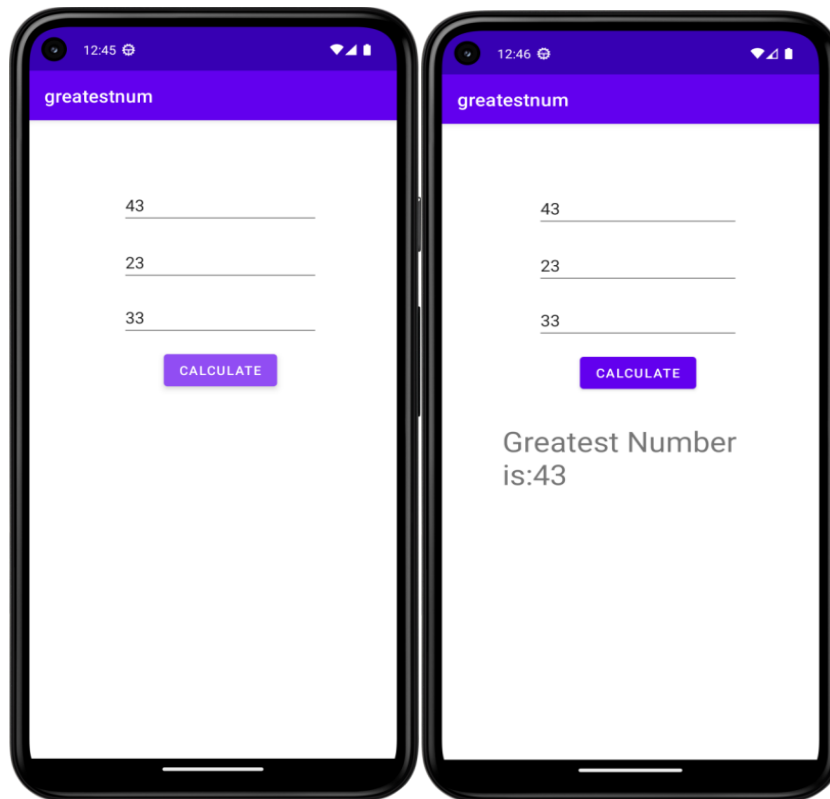
```java
calc.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

int number1=Integer.parseInt(n1.getText().toString());

int number2=Integer.parseInt(n2.getText().toString());

int number3=Integer.parseInt(n3.getText().toString());

if(number1>number2)

result.setText("Greatest Number is:"+number1);

else if(number2 > number3)

result.setText("Greatest Number is:"+number2);

else

result.setText("Greatest Number is:"+number3);

}

});

}

}
```

OUTPUT :

EX NO: 2. Develop an application to display your personal details using GUI Components

XML CODE:

activity_main.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
 xmlns:app="http://schemas.android.com/apk/res-auto"
 xmlns:tools="http://schemas.android.com/tools"
 android:layout_width="match_parent"
 android:layout_height="match_parent"
 tools:context=".MainActivity"
 android:orientation="vertical"
 android:gravity="center"
 android:padding="10dp">
<EditText
 android:id="@+id/nameET"
 android:hint="Enter Name"
 android:inputType="text"
 android:layout_width="match_parent"
 android:layout_height="wrap_content"/>
<EditText
 android:id="@+id/emailET"
 android:hint="Enter EMail"
 android:inputType="textEmailAddress"
 android:layout_width="match_parent"
 android:layout_height="wrap_content"/>
```

```xml
<EditText
    android:id="@+id/phoneET"
    android:hint="Enter Phone Number"
    android:inputType="phone"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
<Button
    android:id="@+id/saveBtn"
    android:text="Save"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"/>
</LinearLayout>
```

activity_second.xml:

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

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

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

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

 android:layout_width="match_parent"

 android:layout_height="match_parent"

 android:orientation="vertical"

 android:gravity="center"

 android:padding="10dp"

 tools:context=".secondActivity">

 <TextView

 android:id="@+id/resultTV"

 android:layout_width="match_parent"

 android:layout_height="200dp"

 android:textSize="30sp"

 android:textStyle="bold"/>

</LinearLayout>
```

JAVA CODE:

MainActivity.java

```java
package com.example.personal_details;

import androidx.appcompat.app.ActionBar;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

 @Override

 protected void onCreate(Bundle savedInstanceState) {

 super.onCreate(savedInstanceState);

 setContentView(R.layout.activity_main);

 ActionBar actionBar =getSupportActionBar();

 actionBar.setTitle("First Activity");

 EditText mNameET=findViewById(R.id.nameET);

 EditText mEmailET=findViewById(R.id.emailET);

 EditText mPhoneET=findViewById(R.id.phoneET);

 Button mSaveBtn=findViewById(R.id.saveBtn);

 mSaveBtn.setOnClickListener(new View.OnClickListener() {

 @Override

 public void onClick(View view) {

//get data from EditText
```

```java
        String name=mNameET.getText().toString();

        String email=mEmailET.getText().toString();

        String phone=mPhoneET.getText().toString();

        //Intent activity

    Intent intent=new

    Intent(MainActivity.this,secondActivity.class);

        intent.putExtra("NAME",name);

        intent.putExtra("EMAIL",email);

        intent.putExtra("PHONE",phone);

        startActivity(intent);

        }

        });

        }

        }
```

SecondActivity.java

```java
package com.example.personal_details;

import androidx.appcompat.app.ActionBar;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.widget.TextView;

public class secondActivity extends AppCompatActivity {

 @Override

 protected void onCreate(Bundle savedInstanceState) {

 super.onCreate(savedInstanceState);

 setContentView(R.layout.activity_second);

 ActionBar actionBar =getSupportActionBar();

 actionBar.setTitle("Second Activity");

 //intent to get data

 Intent intent=getIntent();

 String name=intent.getStringExtra("NAME");

 String email=intent.getStringExtra("EMAIL");

 String phone=intent.getStringExtra("PHONE");

 TextView mResultTY=findViewById(R.id.resultTV);

 mResultTY.setText("My Name is: "+name+"\nMy EMail ID is:
"+email+"\nMy Mobile Number is: "+phone);

 }

}
```

OUTPUT:

First Activity

Enter Name

Enter EMail

Enter Phone Number

SAVE

First Activity

Harshan

Harshan@gmail.com

8074596231

SAVE

Second Activity

My Name is: Harshan
My EMail ID is:
Harshan@gmail.com
My Mobile Number is:
9807456213

EX NO 3:   **Develop an application that uses the radio button**

XML CODE:

activity_main.xml

```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=".MainActivity">

 <TextView
    android:layout_width="wrap_content"
android:layout_height="wrap_content"    android:text="Select
your Subject ?"    android:textStyle="bold"
android:layout_marginLeft="10dp"
android:textSize="20sp"/>


<!-- add RadioGroup which contain the many RadioButton-->

<RadioGroup
    android:layout_marginTop="50dp"
android:id="@+id/groupradio"
android:layout_marginLeft="10dp"
android:layout_width="fill_parent"
android:layout_height="wrap_content">


   <!-- In RadioGroup create the 1 Radio Button-->

   <!-- like this we will add some more Radio Button-->

   <RadioButton
      android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:id="@+id/radia_id1"       android:text="DBMS"
android:textSize="20sp"/>


   <RadioButton
      android:layout_width="fill_parent"
android:layout_height="wrap_content"
```

```xml
        android:id="@+id/radia_id2"      android:text="C/C++
Programming"      android:textSize="20sp"/>


    <RadioButton
        android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:id="@+id/radia_id3"      android:text="Data
Structure"      android:textSize="20sp"/>


    <RadioButton
        android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:id="@+id/radia_id4"      android:text="Algorithms"
android:textSize="20sp"/>

</RadioGroup>

<!-- add button For Submit the Selected item-->

<Button
    android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Submit"     android:id="@+id/submit"
android:textStyle="bold"     android:textSize="20sp"
android:layout_marginTop="300dp"
android:layout_marginLeft="180dp"

    />


<!-- add clear button for clear the selected item-->

<Button
    android:layout_width="wrap_content"
android:layout_height="wrap_content"     android:text="Clear"
android:id="@+id/clear"     android:textSize="20sp"
android:textStyle="bold"
android:layout_marginTop="300dp"
android:layout_marginLeft="20dp"

    />


</RelativeLayout>
```

JAVA CODE:

MainActivity.java:

```java
package com.example.myapplication;

import static android.widget.Toast.*;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.RadioButton;

import android.widget.RadioGroup;

import android.widget.Toast;

import com.example.myapplication.R;


public class MainActivity extends AppCompatActivity {
    // Define the object for Radio Group,     // Submit and Clear buttons
private RadioGroup radioGroup;

    Button submit, clear;

    @Override

    protected void onCreate(Bundle savedInstanceState)

    {

         super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

         // with the help of findViewById() method

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

        clear = (Button)findViewById(R.id.clear);
```

```java
        radioGroup = (RadioGroup)findViewById(R.id.groupradio);

        radioGroup.clearCheck();

        radioGroup.setOnCheckedChangeListener(

            new RadioGroup.OnCheckedChangeListener() {

                @Override

    public void onCheckedChanged(RadioGroup group, int checkedId)

    {

    RadioButton   radioButton  = (RadioButton)group .findViewById(checkedId);

                }

            });

    submit.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View v) {

    int selectedId = radioGroup.getCheckedRadioButtonId();

    if (selectedId == -1) {

                Toast.makeText(MainActivity.this, "No answer has been selected",
    Toast.LENGTH_SHORT).show();

            }

     else {

     RadioButton radioButton= (RadioButton)radioGroup.findViewById(selectedId);
    Toast.makeText(MainActivity.this,radioButton.getText().Toast.LENGTH_SHORT).show();

            }

        }

        });

    clear.setOnClickListener(new View.OnClickListener() {
```
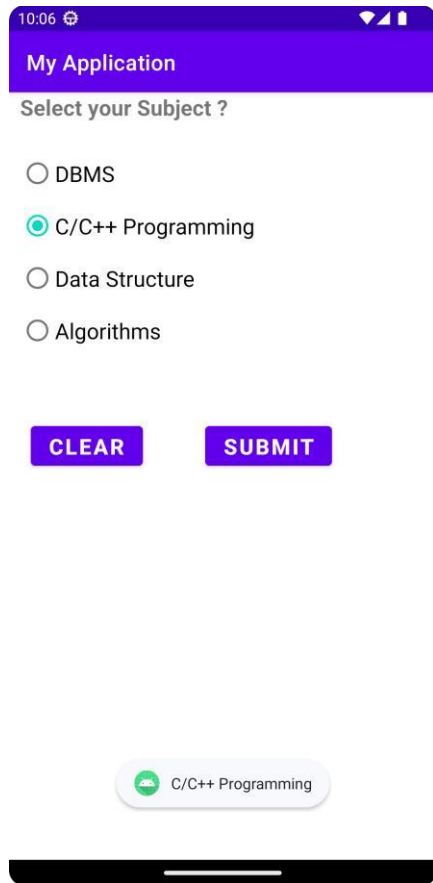
```java
        @Override

        public void onClick(View v)

        {

radioGroup.clearCheck();

        }

    });

  }

}
```

EX NO: 4   **Develop an application that uses the image button**

XML CODE:

activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation="vertical"
tools:context=".MainActivity">

 <ImageButton
android:id="@+id/ImageBtn"
android:layout_width="300dp"
android:layout_height="90dp"
android:layout_gravity="center"
android:layout_marginTop="200dp"
android:src="@drawable/panda"
    />
</LinearLayout>
```

JAVA CODE:

MainActivity.java

package com.example.image_button;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.ImageButton;
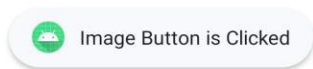
import android.widget.Toast;

 public class MainActivity extends AppCompatActivity {

ImageButton img;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.*activity_main*);

    img=findViewById(R.id.*ImageBtn*);

    img.setOnClickListener(new View.OnClickListener() {

      @Override

      public void onClick(View view) {

        Toast.*makeText*(getApplicationContext(),"Image Button is

Clicked", Toast.*LENGTH_LONG*).show();

        //Toast.makeText(MainActivity.this,"Image Button is

Clicked", Toast.LENGTH_LONG.show());

      }

    }); }}

EX NO 5:   **Develop an application that uses Alert Dialog Box**

XML CODE :

activity_main.xml

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

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

android:layout_width="match_parent"

android:layout_height="match_parent"

tools:context=".MainActivity">


 <TextView

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:layout_marginTop="180dp"

android:gravity="center_horizontal"

android:text="Press The Back Button of Your Phone."

android:textSize="30dp"

android:textStyle="bold" />

</RelativeLayout>
```

JAVA CODE:

MainActivity.java

```java
package com.example.test;

import androidx.appcompat.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity;

import android.content.DialogInterface;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

    @Override

protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

    }

@Override

    public void onBackPressed () {

        // Create the object of AlertDialog Builder class

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

        builder.setMessage("Do you want to exit ?");

        builder.setTitle("Alert !");

        .setCancelable(false);

        builder.setPositiveButton("Yes", (DialogInterface.OnClickListener)

(dialog, which) -> {

        finish();

    });
```
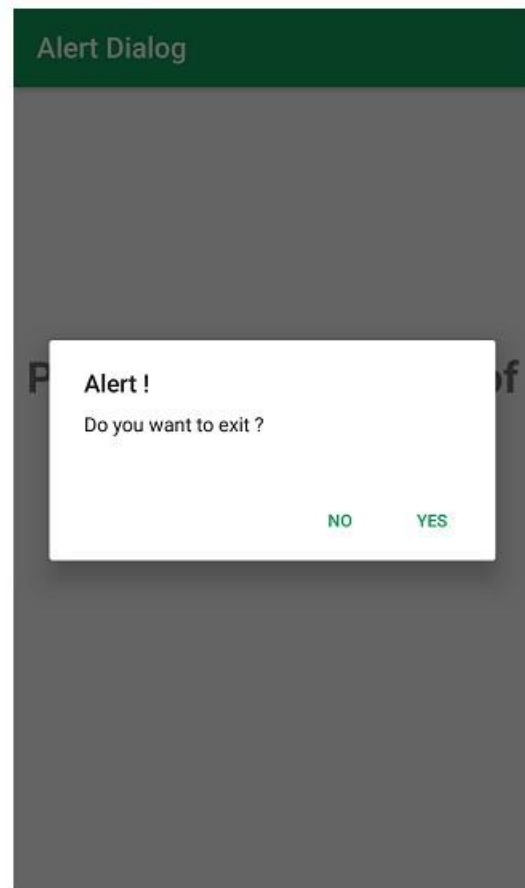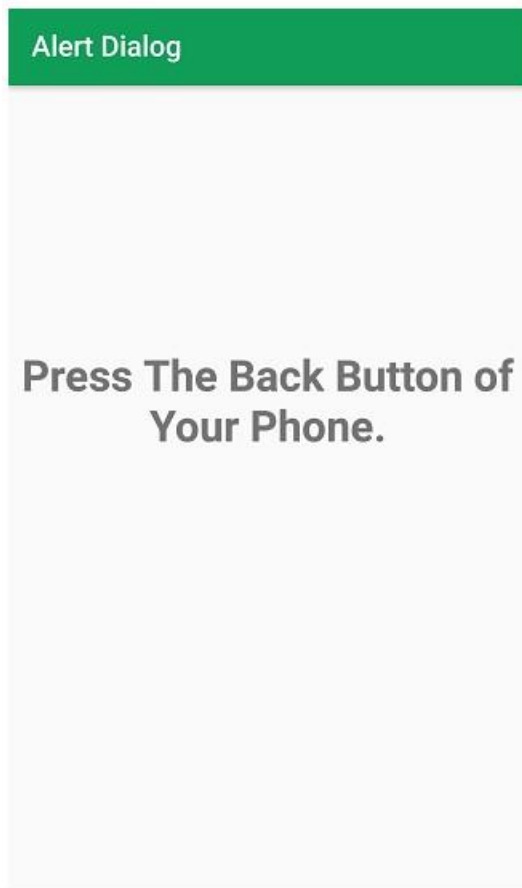
```java
        builder.setNegativeButton("No", (DialogInterface.OnClickListener)

(dialog, which) -> {

dialog.cancel();

        });

        AlertDialog alertDialog = builder.create();

     alertDialog.show();

    }

}
```

OUTPUT:

Alert Dialog

Press The Back Button of Your Phone.

Alert Dialog

Alert !

Do you want to exit ?

NO   YES

EX NO : 6.   **Develop an application that uses Layout Managers.**

XML CODE:

activity_main.xml

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

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

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

android:layout_width="match_parent"

android:layout_height="match_parent"

tools:context=".MainActivity">


 <LinearLayout
     android:layout_width="match_parent"
android:layout_height="100dp">

<TextView
       android:id="@+id/textView"
       android:layout_width="match_parent"
       android:layout_height="wrap_content"
       android:layout_margin="30dp"
       android:text="Details Form"

       android:textSize="25sp"

       android:gravity="center"/>

   </LinearLayout>

   <GridLayout
android:id="@+id/gridLayout"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:layout_marginTop="100dp"
android:layout_marginBottom="200dp"
android:columnCount="2"

 android:rowCount="3">

 <TextView
 android:id="@+id/textView1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_margin="10dp"
```

```
            android:layout_row="0"

            android:layout_column="0"

            android:text="Name"

            android:textSize="20sp"

            android:gravity="center"/>


<EditText
        android:id="@+id/editText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:layout_row="0"

        android:layout_column="1"

        android:ems="10"/>


    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:layout_row="1"

        android:layout_column="0"

        android:text="Reg.No"

        android:textSize="20sp"

        android:gravity="center"/>


    <EditText
        android:id="@+id/editText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:layout_row="1"

         android:layout_column="1"
        android:inputType="number"

        android:ems="10"/>

 <TextView
```

```xml
        android:id="@+id/textView3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"

        android:layout_row="2"

        android:layout_column="0"

        android:text="Dept"

        android:textSize="20sp"

        android:gravity="center"/>


    <Spinner

        android:id="@+id/spinner"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"

        android:layout_row="2"

        android:layout_column="1"
        android:spinnerMode="dropdown"/>


    </GridLayout>
    <Button        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_centerInParent="true"
        android:layout_marginBottom="150dp"
        android:text="Submit"/>


</RelativeLayout>
```

activity_second.xml

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

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

android:layout_width="match_parent"

android:layout_height="match_parent"

tools:context=".Second"

android:orientation="vertical"

android:gravity="center">

    <TextView
android:id="@+id/textView1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_margin="20dp"

 android:text="New Text"

android:textSize="30sp"/>

    <TextView
android:id="@+id/textView2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_margin="20dp"

android:text="New Text"

android:textSize="30sp"/>

<TextView
 android:id="@+id/textView3"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_margin="20dp"

android:text="New Text"

android:textSize="30sp"/>

</LinearLayout>
```

JAVA CODE:

MainActivity.java

```java
package com.example.test;

import androidx.appcompat.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity;

import android.content.DialogInterface;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.ArrayAdapter;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Spinner;

public class MainActivity
extendsAppCompatActivity {

    EditText e1,e2;

    Button bt;

    Spinner s;

    String [] dept_array={"CSE","ECE","IT","Mech","Civil"};

    String name,reg,dept;

    @Override
    protected void onCreate(Bundle savedInstanceState) {        super.onCreate(savedInstanceState);

setContentView(R.layout.activity_main);

e1= (EditText) findViewById(R.id.editText);
e2= (EditText) findViewById(R.id.editText2);

        bt= (Button) findViewById(R.id.button);


        s= (Spinner) findViewById(R.id.spinner);
```

```java
        ArrayAdapter adapter= new

ArrayAdapter(MainActivity.this,android.R.layout.simple_spinner_item,dept_ar ray);

        s.setAdapter(adapter);

        bt.setOnClickListener(new View.OnClickListener() {

            @Override
            public void onClick(View v) {

                        name=e1.getText().toString();
                        reg=e2.getText().toString();
                        dept=s.getSelectedItem().toString();
                         Intent i = new Intent(MainActivity.this,Second.class);

                                i.putExtra("name_key", name);

                        i.putExtra("reg_key",reg);

                        i.putExtra("dept_key", dept);

                        startActivity(i);


            }

        });

   } }
```

JAVA CODE:

```java
package com.example.test;
```

```java
import androidx.appcompat.app.ActionBar;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.widget.TextView;


public class Second extends AppCompatActivity {

    TextView t1,t2,t3;

    String name,reg,dept;

    @Override
    protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_second);

    t1= (TextView) findViewById(R.id.textView1);

    t2= (TextView) findViewById(R.id.textView2);

    t3= (TextView) findViewById(R.id.textView3);

        Intent i = getIntent();

    name=i.getStringExtra("name_key");
    reg=i.getStringExtra("reg_key");
    dept=i.getStringExtra("dept_key");

    t1.setText(name);       t2.setText(reg);
    t3.setText(dept);


    }

}
```
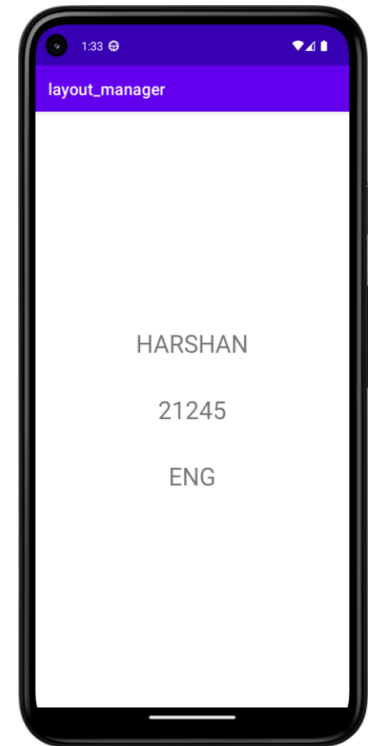
OUTPUT:

EX NO 7: Develop an application that uses audio mode (NORMAL, SILENT, VIBRATE)

XML CODE:

activity_main.java

```xml
<?xml version="1.0" encoding="utf-8"?>
 <LinearLayout android:layout_width="match_parent"
android:layout_height="match_parent"

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

android:orientation="vertical">

   <Button
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:id="@+id/bt1"

        android:text="CURRENT MODE CHECK"
        android:onClick="onMode"/>

   <Button
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:id="@+id/bt2"

        android:text="RINGER MODE"
        android:onClick="onRing"/>

   <Button
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:id="@+id/bt3"

        android:text="SILENT MODE"
        android:onClick="onSilent"/>

   <Button
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:id="@+id/bt4"

        android:text="VIBRATE MODE"
        android:onClick="onVibrate"/>


</LinearLayout>
```

JAVA CODE:

MainActivity.java

```java
package com.example.audio_phone;

import android.content.Context;

import android.media.AudioManager;

import android.os.Bundle;

import android.view.View;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    private AudioManager myAudioManager;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        myAudioManager = (AudioManager)getSystemService(Context.AUDIO_SERVICE);
    }

    public void onMode(View v)
    {
        int mod=myAudioManager.getRingerMode();

        if(mod==AudioManager.RINGER_MODE_VIBRATE){

        Toast.makeText(this,"Now in Vibrate
Mode",Toast.LENGTH_LONG).show();

        }
else if(mod==AudioManager.RINGER_MODE_NORMAL){

        Toast.makeText(this,"Now in Ringing
Mode",Toast.LENGTH_LONG).show();
```

```java
        }
    else
        {

            Toast.makeText(this,"Now in Silent
Mode",Toast.LENGTH_LONG).show();

        }   }
    public void onRing(View v)

    {

        myAudioManager.setRingerMode(AudioManager.RINGER_MODE_NORMAL);

        Toast.makeText(this,"Now in Ringing
Mode",Toast.LENGTH_LONG).show();

}

    public void onSilent(View v)

    {

        myAudioManager.setRingerMode((AudioManager.RINGER_MODE_SILENT));

        Toast.makeText(this,"Now in silent Mode",Toast.LENGTH_LONG).show();

    }
    public void onVibrate(View v)

    {

        myAudioManager.setRingerMode(AudioManager.RINGER_MODE_VIBRATE);

        Toast.makeText(this,"Now in Vibrate
Mode",Toast.LENGTH_LONG).show();

    }

}
```
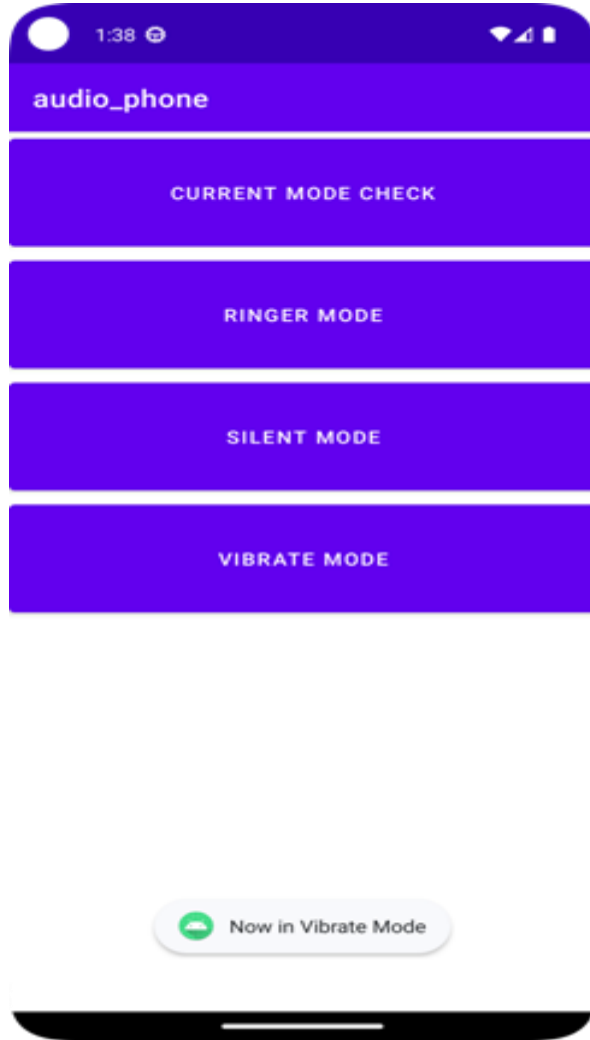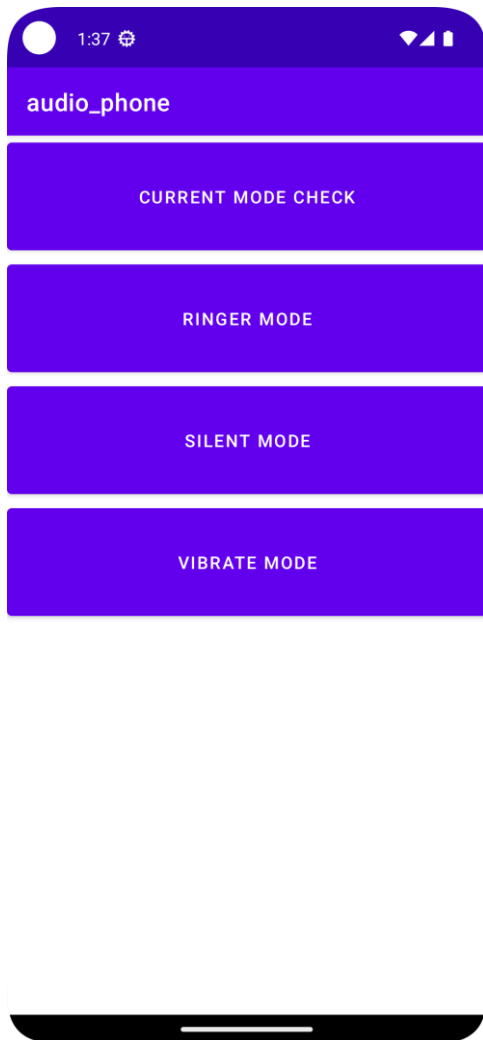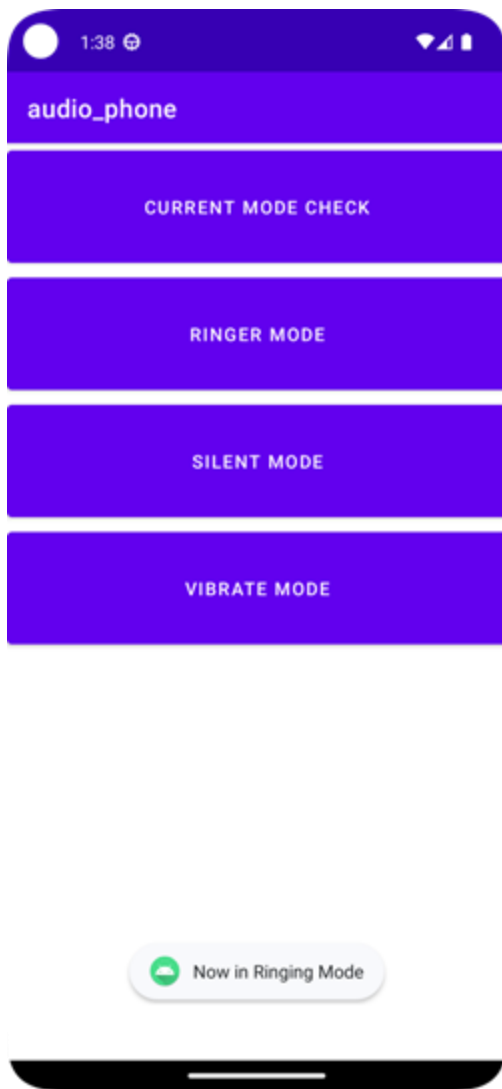
OUTPUT:

EX NO : 8 . Develop an application that uses to send messages from one mobile to another mobile.

XML CODE:

activity_main.xml

```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=".MainActivity">

    <EditText
        android:id="@+id/etPhoneNumber"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="16dp"
        android:hint="Phone Number"
        android:inputType="phone" />

    <EditText
        android:id="@+id/etMessage"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
```

```xml
    android:layout_below="@id/etPhoneNumber"

    android:layout_margin="16dp"

    android:hint="Message"

    android:inputType="textMultiLine"

    android:minLines="3" />
<Button

    android:id="@+id/btnSendSMS"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_below="@id/etMessage"

    android:layout_centerHorizontal="true"

    android:layout_marginTop="16dp"

    android:text="Send SMS"

    android:onClick="onClickSendSMS" />
</RelativeLayout>
```

JAVA CODE:

MainActivity.java

```java
package com.example.sendsms;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.telephony.SmsManager;

import android.view.View;

import android.widget.EditText;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    EditText etPhoneNumber, etMessage;

    @Override
    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        etPhoneNumber = findViewById(R.id.etPhoneNumber);

        etMessage = findViewById(R.id.etMessage);

    }

    public void onClickSendSMS(View view) {

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

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

        SmsManager smsManager = SmsManager.getDefault();

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

        Toast.makeText(this, "SMS Sent", Toast.LENGTH_SHORT).show();

}}
```
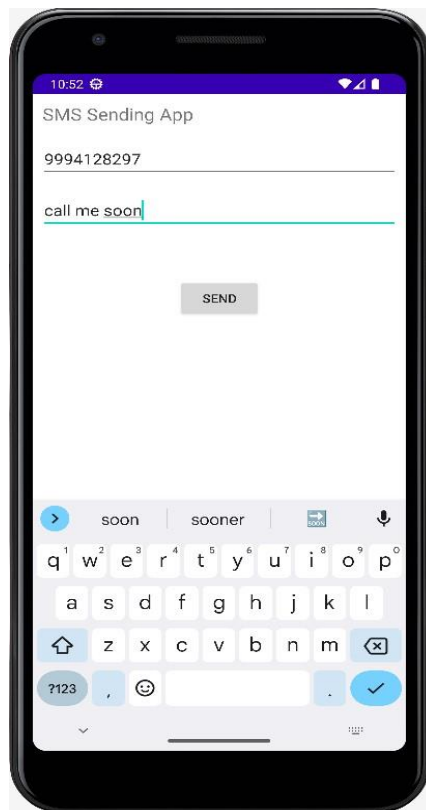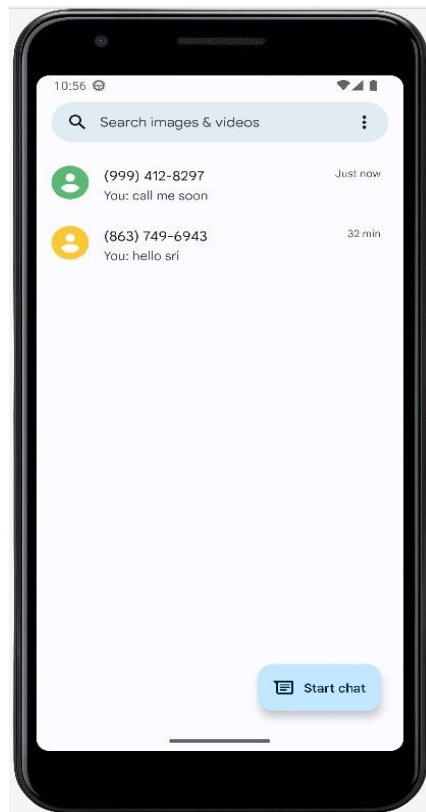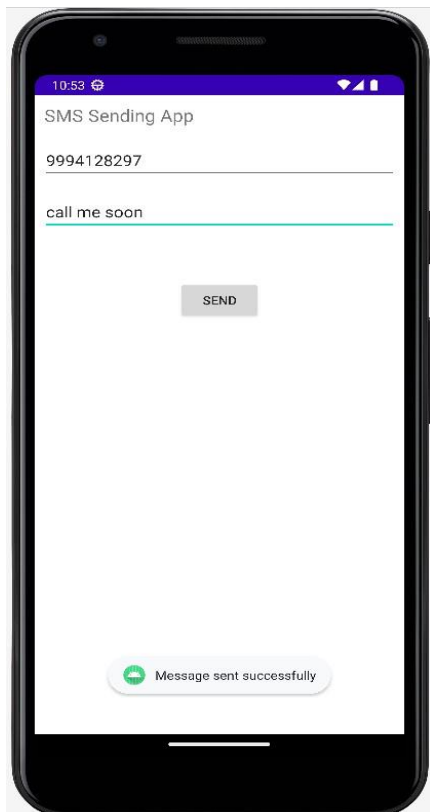
Activity_manifest.xml

```xml
<uses-permission android:name="android.permission.SEND_SMS"/>
```

Left phone screen:

10:53

SMS Sending App

9994128297

call me soon

SEND

Message sent successfully

Right phone screen:

10:56

Search images & videos

(999) 412-8297 — Just now
You: call me soon

(863) 749-6943 — 32 min
You: hello sri

Start chat

EX NO: 9   **Develop an application that uses to send email**

XML CODE:

activity_main.xml

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

<!-- Relative Layout -->

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

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

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    tools:context=".MainActivity">


    <!-- Edit text for email id -->

    <EditText

        android:id="@+id/editText1"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_alignParentTop="true"

        android:layout_alignParentRight="true"

        android:layout_marginTop="18dp"

        android:layout_marginRight="22dp" />


    <!-- Edit text for email subject -->

    <EditText

        android:id="@+id/editText2"

        android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"

android:layout_below="@+id/editText1"

android:layout_alignLeft="@+id/editText1"

android:layout_marginTop="20dp" />


<!-- Edit text for email body -->
<EditText

    android:id="@+id/editText3"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_below="@+id/editText2"

    android:layout_alignLeft="@+id/editText2"

    android:layout_marginTop="30dp" />


<!-- text Views for label -->
<TextView

    android:id="@+id/textView1"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_alignBaseline="@+id/editText1"

    android:layout_alignBottom="@+id/editText1"

    android:layout_alignParentLeft="true"

    android:text="Send To:"

    android:textColor="#0F9D58" />
```

```xml
<TextView

    android:id="@+id/textView2"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_alignBaseline="@+id/editText2"

    android:layout_alignBottom="@+id/editText2"

    android:layout_alignParentLeft="true"

    android:text="Email Subject:"

    android:textColor="#0F9D58" />


<TextView

    android:id="@+id/textView3"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_alignBaseline="@+id/editText3"

    android:layout_alignBottom="@+id/editText3"

    android:text="Email Body:"

    android:textColor="#0F9D58" />


<!-- Button to send email -->
<Button

    android:id="@+id/button"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_below="@+id/editText3"
```

```xml
        android:layout_alignLeft="@+id/editText3"

        android:layout_marginLeft="76dp"

        android:layout_marginTop="20dp"

        android:text="Send email!!" />

</RelativeLayout>
```

JAVA CODE:

MainActivity.java

```java
package com.example.emailapp;

import android.content.Intent;

import android.os.Bundle;

import android.widget.Button;

import android.widget.EditText;

import androidx.appcompat.app.AppCompatActivity;


public class MainActivity extends AppCompatActivity {


    // define objects for edit text and button

    Button button;

    EditText sendto, subject, body;


    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);


        // Getting instance of edittext and button

        sendto = findViewById(R.id.editText1);

        subject = findViewById(R.id.editText2);

        body = findViewById(R.id.editText3);

        button = findViewById(R.id.button);
```

```java
    // attach setOnClickListener to button with Intent object define in it
    button.setOnClickListener(view -> {

        String emailsend = sendto.getText().toString();

        String emailsubject = subject.getText().toString();

        String emailbody = body.getText().toString();


        // define Intent object with action attribute as ACTION_SEND
        Intent intent = new Intent(Intent.ACTION_SEND);


        // add three fields to intent using putExtra function
        intent.putExtra(Intent.EXTRA_EMAIL, new String[]{emailsend});

        intent.putExtra(Intent.EXTRA_SUBJECT, emailsubject);

        intent.putExtra(Intent.EXTRA_TEXT, emailbody);


        // set type of intent
        intent.setType("message/rfc822");


        // startActivity with intent with chooser as Email client using createChooser function
        startActivity(Intent.createChooser(intent, "Choose an Email client :"));
    });
  }
}
```
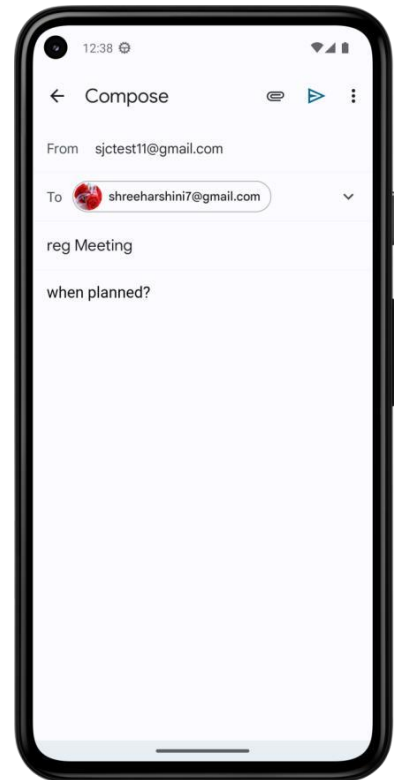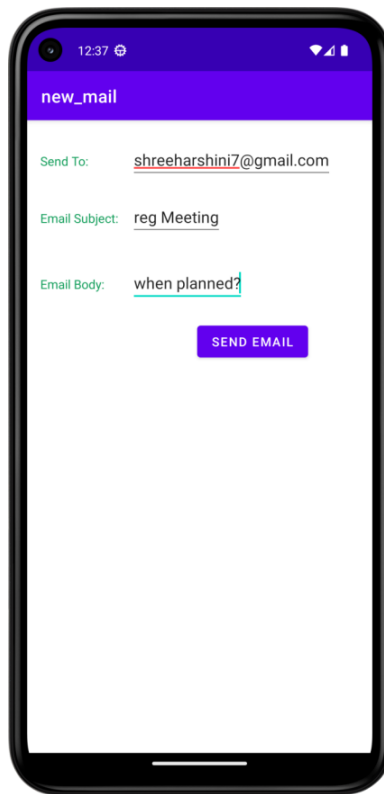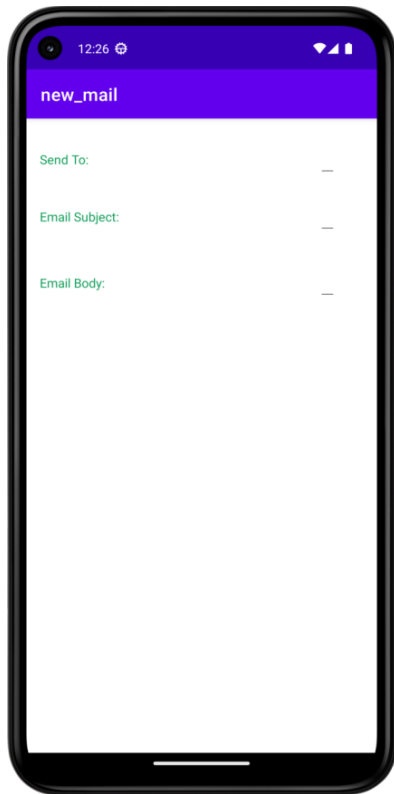
EX NO: 10   **Develop an application for mobile calls.**

XML CODE:

activity_main.xml

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

<!--Relative Layout-->

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

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

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    tools:context=".MainActivity">


    <!-- Edit text for phone number -->

    <EditText

        android:id="@+id/editText"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_alignParentTop="true"

        android:layout_centerHorizontal="true"

        android:layout_marginTop="30dp" />


    <!-- Button to make call -->

    <Button

        android:id="@+id/button"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"
```

```
        android:layout_alignParentTop="true"

        android:layout_centerHorizontal="true"

        android:layout_marginTop="115dp"

        android:padding="5dp"

        android:text="Make Call!!" />

</RelativeLayout>
```

JAVA CODE:

MainActivity.java

```java
package com.example.callapp;

import android.content.Intent;

import android.net.Uri;

import android.os.Bundle;

import android.widget.Button;

import android.widget.EditText;

import androidx.appcompat.app.AppCompatActivity;


public class MainActivity extends AppCompatActivity {


    // define objects for edit text and button
    EditText edittext;

    Button button;


    @Override
    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);


        // Getting instance of edittext and button

        button = findViewById(R.id.button);

        edittext = findViewById(R.id.editText);
```

```java
// Attach set on click listener to the button for initiating intent

button.setOnClickListener(arg -> {

    // getting phone number from edit text and changing it to String

    String phone_number = edittext.getText().toString();


    // Getting instance of Intent with action as ACTION_CALL

    Intent phone_intent = new Intent(Intent.ACTION_CALL);


    // Set data of Intent through Uri by parsing phone number

    phone_intent.setData(Uri.parse("tel:" + phone_number));


    // start Intent

    startActivity(phone_intent);

});

    }

}
```
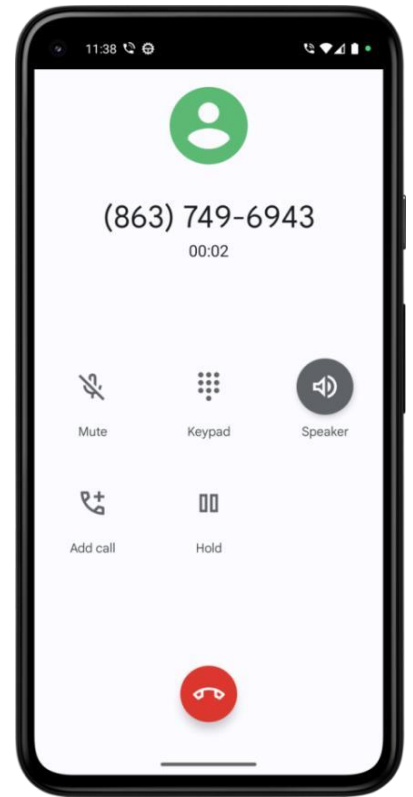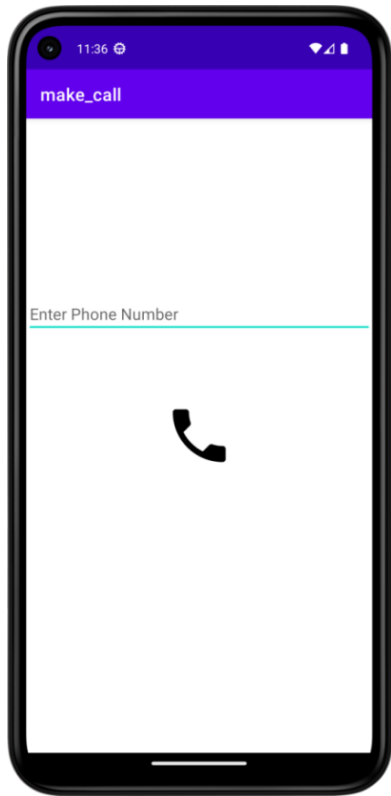
ActivityManifest.xml

```xml
<uses-permission android:name="android.permission.CALL_PHONE" />
```

EX NO:11   Develop an application for Student Mark sheet processing

XML CODE:

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=".MainActivity">
<LinearLayout
android:layout_width="match_pa
rent"
android:layout_height="wrap_co
ntent"
android:gravity="center"
android:orientation="vertical">
<TextView
android:layout_width="wrap_con
tent"
android:layout_height="wrap_co
ntent"
android:layout_marginBottom="
0dp"
android:gravity="center"
android:text="@string/studtitle"
android:textSize="20sp"
android:textColor="@color/design_default_color_primary_dark"/>

<ImageView android:layout_width="100sp" android:layout_height="100sp"
android:src="@drawable/marks1"

android:layout_gravity="center_horiz
ontal"/>
</LinearLayout> <GridLayout
android:id="@+id/gridLayout"
android:layout_width="match_
parent"
android:layout_height="wrap_
content"
android:layout_marginTop="1
```

```xml
00dp"
android:columnCount="2"
android:rowCount="7">
<TextView
android:id="@+id/textView1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
 android:layout_row="0"
android:layout_column="0"
android:layout_margin="10dp"
android:gravity="center"
android:text="NAME"
android:textSize="20sp" />
<EditText
android:id="@+id/editText1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_row="0"
android:layout_column="1"
android:layout_margin="10dp"
android:ems="10" />
<TextView
android:id="@+id/textView2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_row="1"
android:layout_column="0"
android:layout_margin="10dp"
android:gravity="center"
android:text="MARK 1"
android:textSize="20sp" />
<EditText
android:id="@+id/editText2"
android:layout_width="wrap_content"
android:layout_height="wrap_content" android:layout_row="1"
android:layout_column="1"
android:layout_margin="10dp"
```

```xml
android:ems="10"
android:inputType="number" />
<TextView
android:id="@+id/textView3"
android:layout_width="wrap_content"
android:layout_height="wrap_content" android:layout_row="2"
android:layout_column="0"
android:layout_margin="10dp"
android:gravity="center"
android:text="MARK 2"
android:textSize="20sp" />
<EditText
android:id="@+id/editText3"
android:layout_width="wrap_content"
android:layout_height="wrap_content" android:layout_row="2"
android:layout_column="1"
android:layout_margin="10dp"
android:ems="10"
android:inputType="number" />
<TextView
android:id="@+id/textView4"
android:layout_width="wrap_content"
android:layout_height="wrap_content" android:layout_row="3"
android:layout_column="0"
android:layout_margin="10dp"
android:gravity="center"
android:text="MARK 3"
android:textSize="20sp" />
<EditText
android:id="@+id/editText4"
android:layout_width="wrap_content"
android:layout_height="wrap_content" android:layout_row="3"
android:layout_column="1"
android:layout_margin="10dp"
android:ems="10"
android:inputType="number" />
<TextView
```

```
                android:id="@+id/textView5"
                android:layout_width="wrap_co
ntent"
                android:layout_height="wrap_c
ontent" android:layout_row="4"
                android:layout_column="0"
                android:layout_margin="10dp"
                android:gravity="center"
                android:text="TOTAL"
                android:textSize="20sp" />
            <EditText
                android:id="@+id/editText5"
                android:layout_width="wrap_co
ntent"
                android:layout_height="wrap_c
ontent" android:layout_row="4"
                android:layout_column="1"
                android:layout_margin="10dp"
                android:ems="10"
                android:inputType="number" />
            <TextView
                android:id="@+id/textView6"
                android:layout_width="wrap_co
ntent"
                android:layout_height="wrap_c
ontent" android:layout_row="5"
                android:layout_column="0"
                android:layout_margin="10dp"
                android:gravity="center"
                android:text="AVERAGE"
                android:textSize="20sp" />
            <EditText
                android:id="@+id/editText6"
                android:layout_width="wrap_co
ntent"
                android:layout_height="wrap_c
ontent" android:layout_row="5"
                android:layout_column="1"
                android:layout_margin="10dp"
                android:ems="10"
                android:inputType="number" />
            <TextView
                android:id="@+id/textView7"
                android:layout_width="wrap_co
ntent"
```

```
android:layout_height="wrap_c
ontent" android:layout_row="6"
android:layout_column="0"
android:layout_margin="10dp"
android:gravity="center"
android:text="GRADE"
android:textSize="20sp" />
<EditText >
android:id="@+id/editText7"
android:layout_width="wrap_co
ntent"
android:layout_height="wrap_c
ontent" android:layout_row="6"
android:layout_column="1"
android:layout_margin="10dp"
android:ems="10"
android:inputType="number" />
</GridLayout>
<Button
android:id="@+id/button"
android:layout_width="wrap_co
ntent"
android:layout_height="wrap_c
ontent"
android:layout_alignParentStart
="true"
android:layout_alignParentBotto
m="true"
android:layout_centerVertical="
true"
android:layout_marginStart="43
dp"
android:layout_marginEnd="66
dp"
android:layout_marginBottom="8
1dp"
android:layout_toStartOf="@+id/
button1"
android:text="Calculate" />
<Button android:id="@+id/button1" android:layout_width="104dp"
android:layout_height="wrap_content" android:layout_alignParentEnd="true"
android:layout_alignParentBottom="true" android:layout_centerVertical="true"

android:layout_marginEnd="46dp" android:layout_marginBottom="81dp"
```

strings.xml

```xml
<resources>
<string name="app_name">stud_marksheet</string>
<string name="studtitle">STUDENTS MARK CALCULATION</string>
</resources>
```

MainActivity.java

```java
package com.example.stud_marksheet;
import
androidx.appcompat.app.AppCompatActivit
y; import android.os.Bundle; import
android.view.View; import
android.widget.Button; import
android.widget.EditText;
public class MainActivity extends AppCompatActivity {
EditText ed1,ed2,ed3,ed4,ed5,ed6,ed7;
Button bt1,bt2;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
ed1=findViewById(R.id.editText1);
ed2=findViewById(R.id.editText2);
ed3=findViewById(R.id.editText3);
ed4=findViewById(R.id.editText4);
ed5=findViewById(R.id.editText5);
ed6=findViewById(R.id.editText6);
ed7=findViewById(R.id.editText7);
bt1=findViewById(R.id.button);
bt2=findViewById(R.id.button1);
bt1.setOnClickListener(new View.OnClickListener() {
@Override public void
onClick(View view) {
markscalc();
}

}
)
;

bt2.setOnClickListener(new View.OnClickListener() {
@Override public void
onClick(View view) {
clearall();
}
});
}
```

```java
public void
markscalc()
{
int m1,m2,m3,tot; double avg; m1=Integer.parseInt(ed2.getText().toString());
m2=Integer.parseInt(ed3.getText().toString()); m3=Integer.parseInt(ed4.getText().toString());
tot=m1+m2+m3;
ed6.setText(String.valueOf(avg));
if(avg>75){
ed7.setText("A");
}
else if(avg>65){
ed7.setText("B");
}
else if(avg>55){
ed7.setText("C");
}
else if(avg>45){
ed7.setText("D");
}
{
ed7.setText("FAIL");
}
}
public void clearall(){
ed1.setText("");
ed2.setText("");
ed3.setText("");
ed4.setText("");
ed5.setText("");
ed6.setText("");
ed7.setText("");
ed1.requestFocus();
}
}
```

EX NO : 12   **Develop an application for Login Page in Database**

XML CODE:

activity_main.xml

```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"
android:padding="10dp"
tools:context=".MainActivity">
<EditText
android:id="@+id/username"
android:layout_width="match_p
arent"
android:layout_height="wrap_c
ontent" android:hint="Enter
User name"
android:layout_marginTop="50
dp"/>
<EditText android:id="@+id/password" android:layout_width="match_parent"
android:layout_height="wrap_content" android:hint="Enter Password"
android:layout_marginTop="50dp"

android:layout_below="@+id/username"/>

<EditText android:id="@+id/repassword" android:layout_width="match_parent"
android:layout_height="wrap_content" android:hint="ReEnter Password"
android:layout_marginTop="50dp" android:layout_below="@+id/password"/>

<Button
android:id="@+id/btnsignup"
android:layout_width="match_paren
t"
android:layout_height="wrap_conte
nt" android:text="Register"
android:layout_marginTop="50dp"
```

```xml
android:layout_below="@id/repass
word"/>
<Button
android:id="@+id/btnsignin"
android:layout_width="match_par
ent"
android:layout_height="wrap_cont
ent" android:text="Existing User!
Signin Here"
android:layout_marginTop="50dp
"
android:layout_below="@id/btnsi
gnup"/>
</RelativeLayout>
```

activity_login.xml

```xml
<?xml version="1.0"
encoding="utf8"?>
<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_p
arent"
android:padding="10dp"
tools:context=".loginActivity">
<EditText
android:id="@+id/username1"
android:layout_width="match_pa
rent"
android:layout_height="wrap_co
ntent"
android:hint="Enter Username"
android:layout_marginTop="50d
p"/>
<EditText
android:id="@+id/password1"
android:layout_width="match_parent
"
android:layout_height="wrap_conten
t"
android:hint="Enter Password"
android:layout_marginTop="50dp"
android:layout_below="@+id/userna
me1"/>
<Button
android:id="@+id/btnsignin1"
android:layout_width="match_pare
nt"
android:layout_height="wrap_conte
nt"
android:text="sign in"
android:layout_marginTop="50dp"
```

```
android:layout_below="@id/passe
word1"/>
</RelativeLayout>
```

JAVA CODE:

MainActivity.java

```java
package com.example.login_sqlite;
importandroidx.appcompat.app.AppCompat
Activity;
import android.content.Intent;
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 username, password, repassword;
Button signup,signin;
DBHelper DB;
@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.pass
word);
repassword=(EditText)
findViewById(R.id.password);
signup=(Button)
findViewById(R.id.btnsignup);
signin=(Button)
findViewById(R.id.btnsignin);
DB=new DBHelper(this);
signup.setOnClickListener(new View.OnClickListener() {
@Override
```

```java
public void onClick(View view) {
String
user=username.getText().toString()
String pass=password.getText().toString();
String repass=repassword.getText().toString();
if(user.equals("")||pass.equals("")||repass.equals(""))
Toast.makeText(MainActivity.this,"Please enter all the
fields",Toast.LENGTH_SHORT).show();
else{
if(pass.equals(repass)){
Boolean checkuser=DB.checkusername(user);
if(checkuser==false){
Boolean insert=DB.insertdata(user,pass);
if(checkuser=true){
Toast.makeText(MainActivity.this,"Registered
Successfully",Toast.LENGTH_SHORT).show();
Intent intent=new Intent(getApplicationContext(),homeActivity.class);
startActivity(intent);
}
{
Toast.makeText(MainActivity.this,"Registration
Failed",Toast.LENGTH_SHORT).show();
}
}
{

Toast.makeText(MainActivity.this,"User already exists!Please Sign
in",Toast.LENGTH_SHORT).show();
}
}

{
Toast.makeText(MainActivity.this,"Password not
matching",Toast.LENGTH_SHORT).show();
}
}
}
});
signin.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
Intent intent=new Intent(getApplicationContext(),loginActivity.class);
startActivity(intent);
}
```

```
});
}
}
```

LoginActivity.java

```java
package com.example.login_sqlite;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

public class loginActivity extends AppCompatActivity {

EditText username,password;

Button btnlogin;

DBHelper DB;

@Override

protected void onCreate(Bundle savedInstanceState)

{

super.onCreate(savedInstanceState);

setContentView(R.layout.activity_login);

 username =(EditText) findViewById(R.id.username1);

password =(EditText) findViewById(R.id.password1);

btnlogin =(Button) findViewById(R.id.btnsignin1);
```

```java
DB=new DBHelper(this);

btnlogin.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

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

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

if (user.equals("") || pass.equals(""))

Toast.makeText(loginActivity.this, "Please enter all the fields",
Toast.LENGTH_SHORT).show();

else {

Boolean checkuser = DB.checkusernamepassword(user, pass);

if (checkuser = true) {

Toast.makeText(loginActivity.this, "Sign in successfull", Toast.LENGTH_SHORT).show();

Intent intent = new Intent(getApplicationContext(), homeActivity.class); startActivity(intent);

}

else

{

Toast.makeText(loginActivity.this, "Invalid Credentials", Toast.LENGTH_SHORT).show();

} }

}

});

}}
```

DBHelper.java

```java
package com.sayed.login_sqlite;

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 static final String DBNAME="login.db";

public DBHelper(Context context) { super(context, "login.db", null, 1);

}

@Override

public void onCreate(SQLiteDatabase MyDB) {

MyDB.execSQL("create Table users(username TEXT primary key,password TEXT)        ");

}

@Override

public void onUpgrade(SQLiteDatabase MyDB, int i, int i1) {

        MyDB.execSQL("drop Table if exists users  ");

}

public boolean insertdata(String username, String password){

SQLiteDatabase MyDB=this.getWritableDatabase();

ContentValues contentValues=new ContentValues();

contentValues.put("username",username);

contentValues.put("password",password);
```

```java
long result=MyDB.insert("users",null,contentValues);

if(result==-1)

return false;

else

return true;

}

public boolean checkusername(String username)

{

SQLiteDatabase MyDB=this.getWritableDatabase();

Cursor cursor=MyDB.rawQuery("select * from users where username=?", new
String[]{username}); if(cursor.getCount()>0) return true; else

return false;

}

public boolean checkusernamepassword(String username, String password)

{

SQLiteDatabase MyDB=this.getWritableDatabase();

Cursor cursor=MyDB.rawQuery("    select * from users where username=? and
password=?",new

String[]{username,password});

if(cursor.getCount()>0) return true; else

return false;

}

}
```
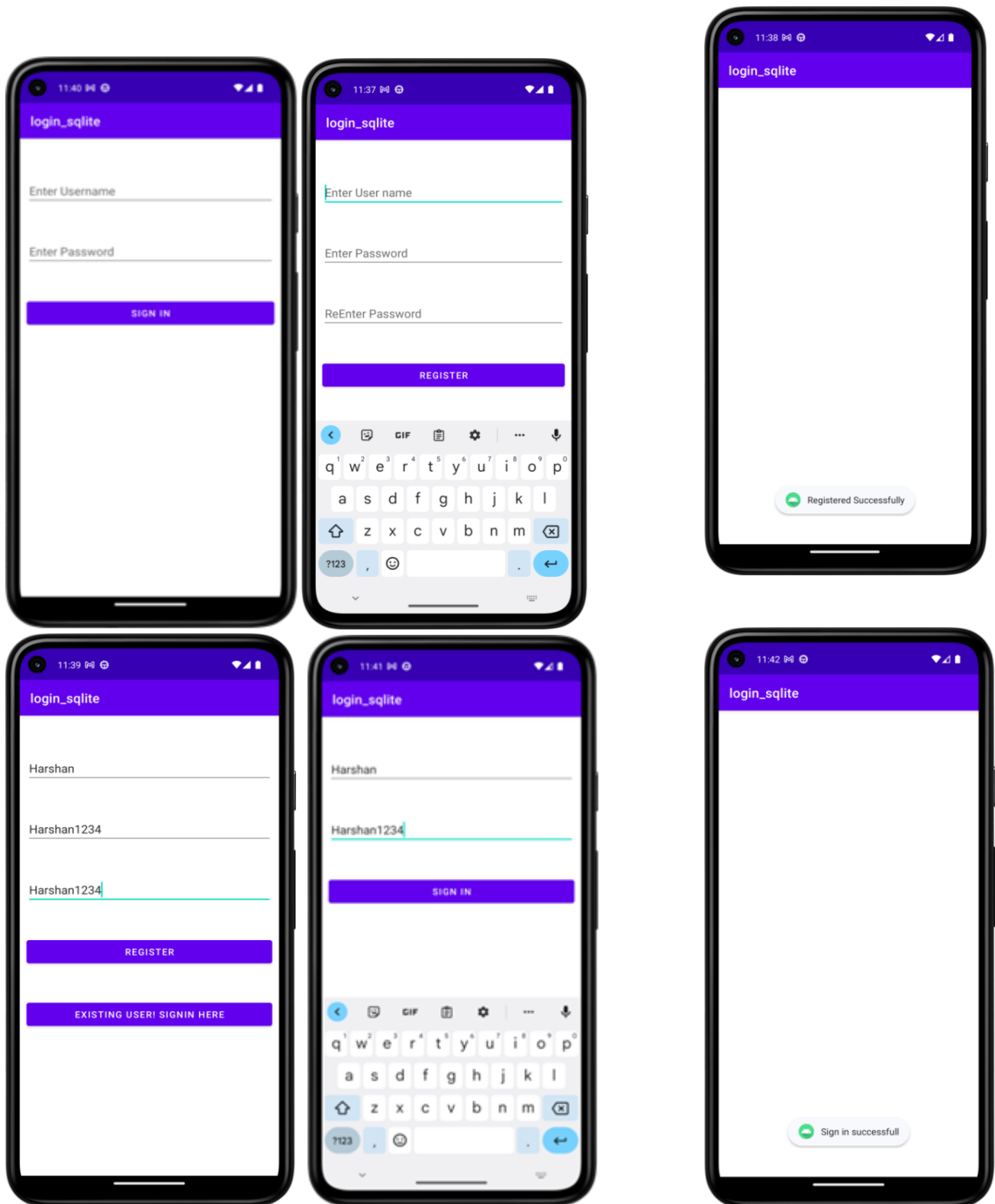
OUTPUT:

EX NO 13: **Develop an application for Google map locator**

XML CODE:

activity_main.xml

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

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

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

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

android:layout_width="match_parent"

android:layout_height="match_parent"

android:orientation="vertical"

tools:context=".MainActivity">

<EditText

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:id="@+id/et_source"

android:hint="Enter Source Location"

android:padding="12dp"/>

<EditText

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:id="@+id/et_destination"

android:hint="Enter Destination Location"

android:padding="12dp"

android:layout_marginTop="8dp"/>
```

```xml
<Button

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:id="@+id/bt_track"

android:text="Track"

android:layout_gravity="center"

android:layout_marginTop="16dp"/>

</LinearLayout>
```

JAVA CODE:

MainActivity.java

```java
package com.example.mymap;

import androidx.appcompat.app.AppCompatActivity;

import android.content.ActivityNotFoundException;

import android.content.Intent;

import android.net.Uri;

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 etsource, etdestination;

Button btTrack;

@Override

protected void onCreate(Bundle savedInstanceState)

{

super.onCreate(savedInstanceState);

setContentView(R.layout.activity_main);

etsource=findViewById(R.id.et_source);

etdestination =findViewById(R.id.et_destination);

btTrack=findViewById(R.id.bt_track);


btTrack.setOnClickListener(new View.OnClickListener() {
```

```java
@Override
public void onClick(View view) {

String ssource=etsource.getText().toString().trim();

String sdestination=etdestination.getText().toString().trim();

if(ssource.equals("")&&sdestination.equals("")){

Toast.makeText(getApplicationContext(),"Enter both
location",Toast.LENGTH_SHORT).show();

}

Else

{

DisplayTrack(ssource,sdestination);}

}

});

}

public void DisplayTrack(String ssource, String sdestination)

{

try

 {

Uri uri=Uri.parse("https://www.google.co.in/maps/dir/"+ssource+"/"+sdestination);

Intent intent=new Intent(Intent.ACTION_VIEW,uri);
intent.setPackage("com.google.android.apps.maps");
intent.setFlags(Intent.FLAG_ACTIVITY_NEW_TASK);

startActivity(intent);

}

catch (ActivityNotFoundException e){

Uri
uri=Uri.parse("https://play.google.com/store/apps/details?id=com.google.android.apps.maps");
```

```java
Intent intent=new Intent(Intent.ACTION_VIEW,uri);
intent.setFlags(Intent.FLAG_ACTIVITY_NEW_TASK); startActivity(intent);

} }
```

OUTPUT: