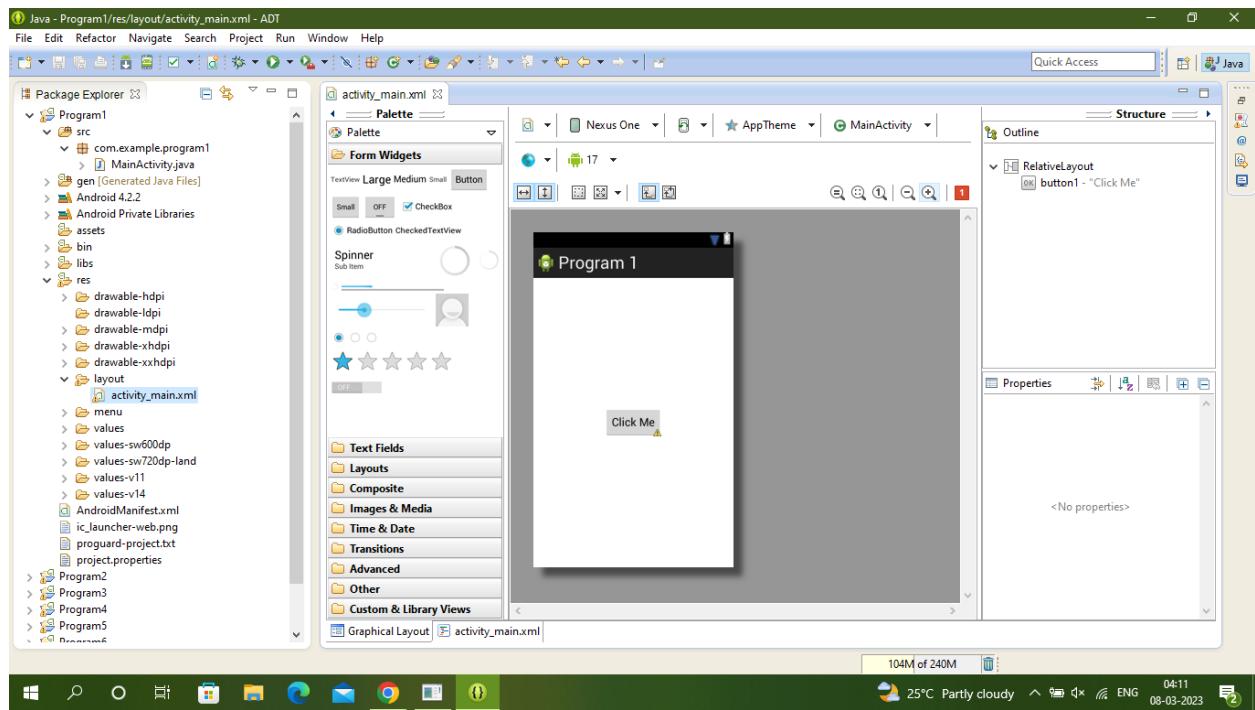


Program 1: Write a program to Toast Hello World

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="fun"
        android:text="Click Me" />

</RelativeLayout>
```

MainActivity.java

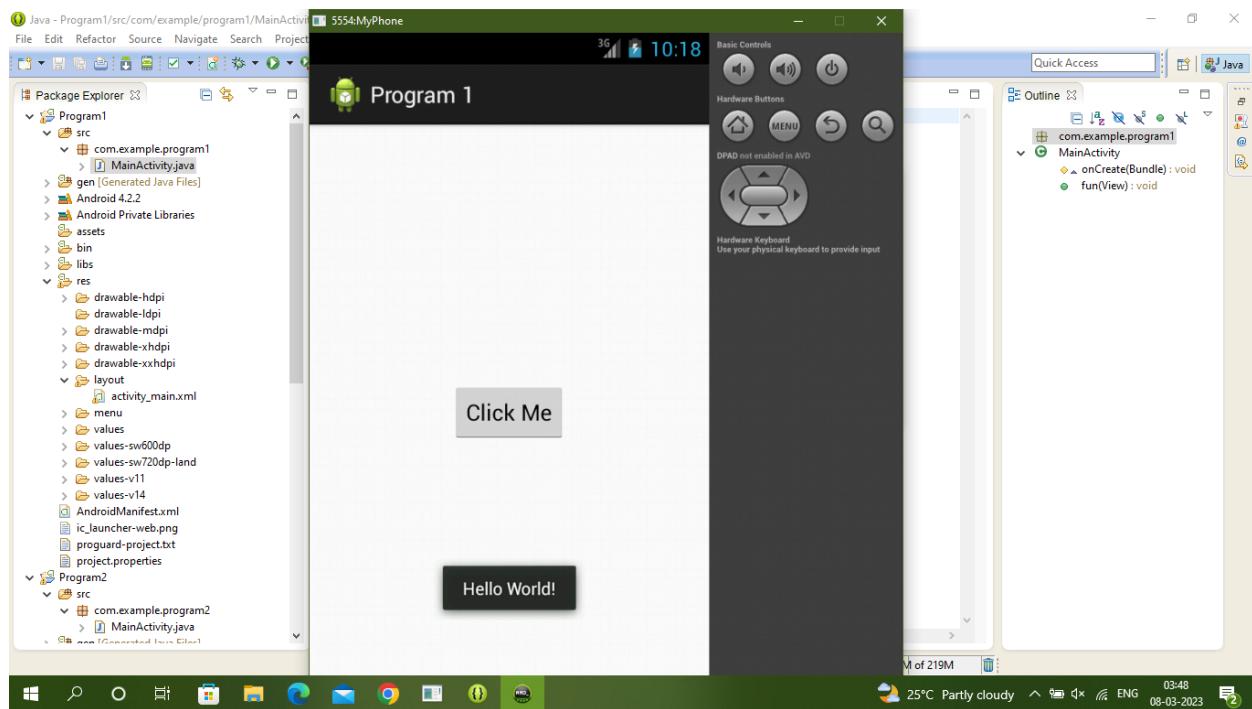
```
package com.example.program1;

import android.os.Bundle;
import android.view.View;
import android.widget.Toast;
import android.app.Activity;

public class MainActivity extends Activity {

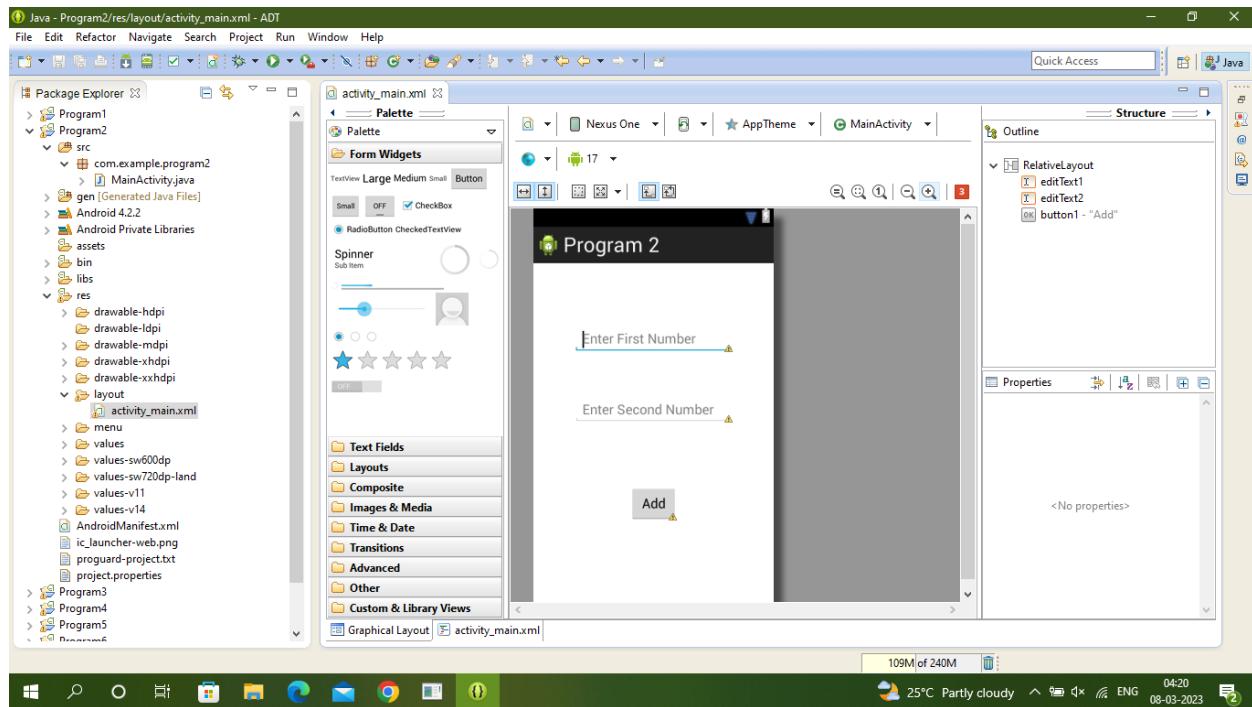
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }

    public void fun(View v)
    {
        Toast.makeText(this,"Hello World!",Toast.LENGTH_LONG).show();
    }
}
```



Program 2: Write a program to add two numbers

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <EditText
        android:id="@+id/editText1"
        android:layout_width="wrap_content"
        android:hint="Enter First Number"
        android:layout_height="wrap_content" >

        <requestFocus />
    </EditText>

    <EditText
        android:id="@+id/editText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```
    android:hint="Enter Second Number"
    android:ems="10" />

<Button
    android:id="@+id/button1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="sum"
    android:text="Add" />

</RelativeLayout>
```

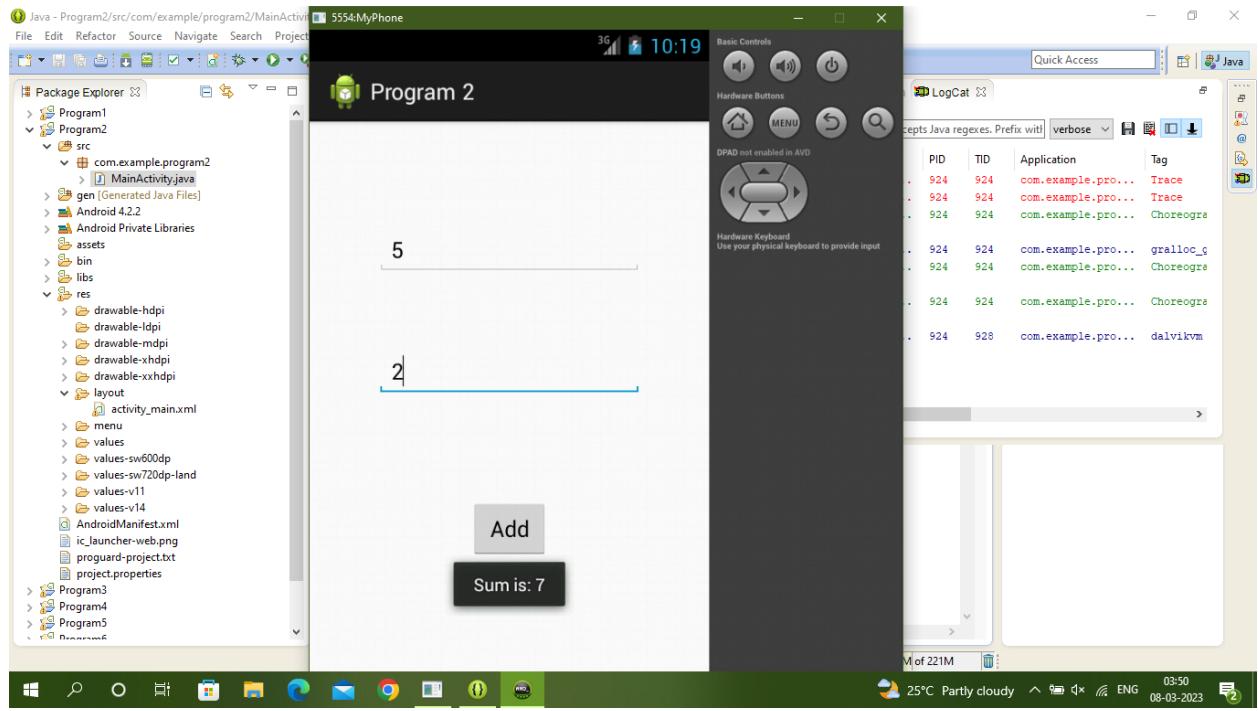
MainActivity.java

```
package com.example.program2;

import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;
import android.app.Activity;

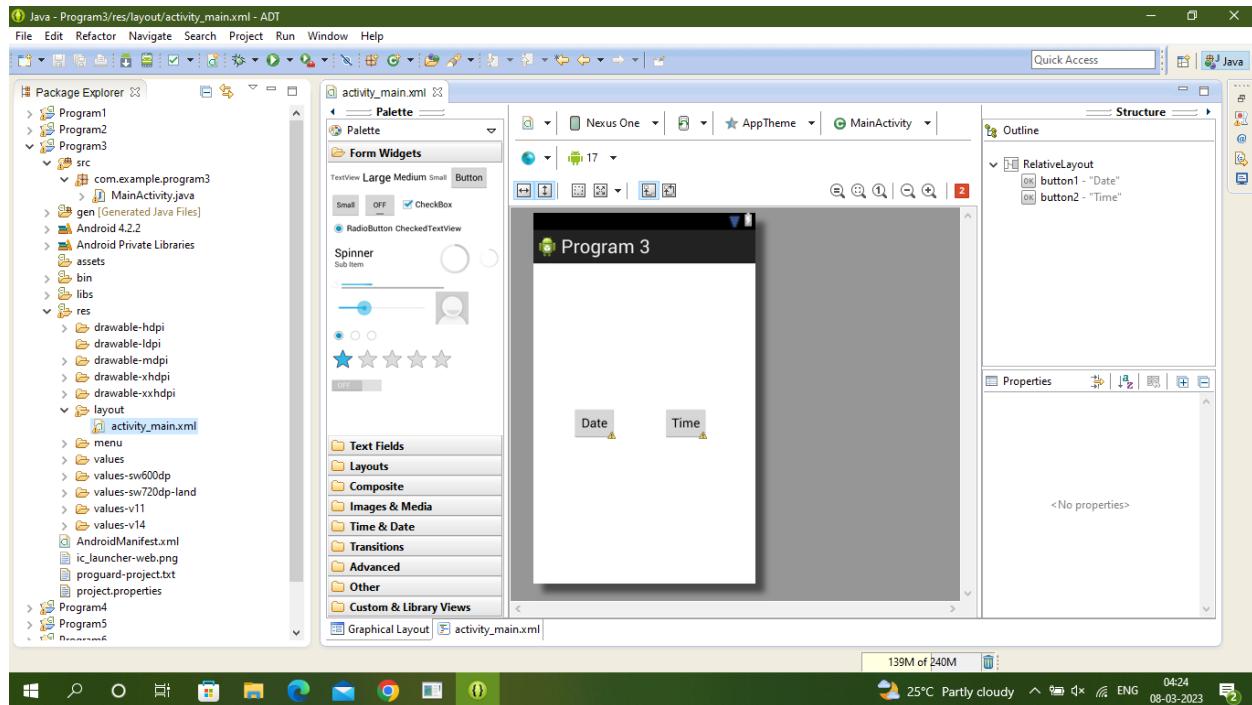
public class MainActivity extends Activity {
    EditText e1,e2;
    int num1,num2,sum;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        e1=(EditText)findViewById(R.id.editText1);
        e2=(EditText)findViewById(R.id.editText2);
    }

    public void sum(View v)
    {
        num1=Integer.parseInt(e1.getText().toString());
        num2=Integer.parseInt(e2.getText().toString());
        sum=num1+num2;
        Toast.makeText(this, "Sum is: "+sum, Toast.LENGTH_LONG).show();
    }
}
```



Program 3: Write a program to display date and time using dialog box

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="date"
        android:text="Date" />

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="time"
        android:text="Time" />
```

```
</RelativeLayout>
```

MainActivity.java

```
package com.example.program3;

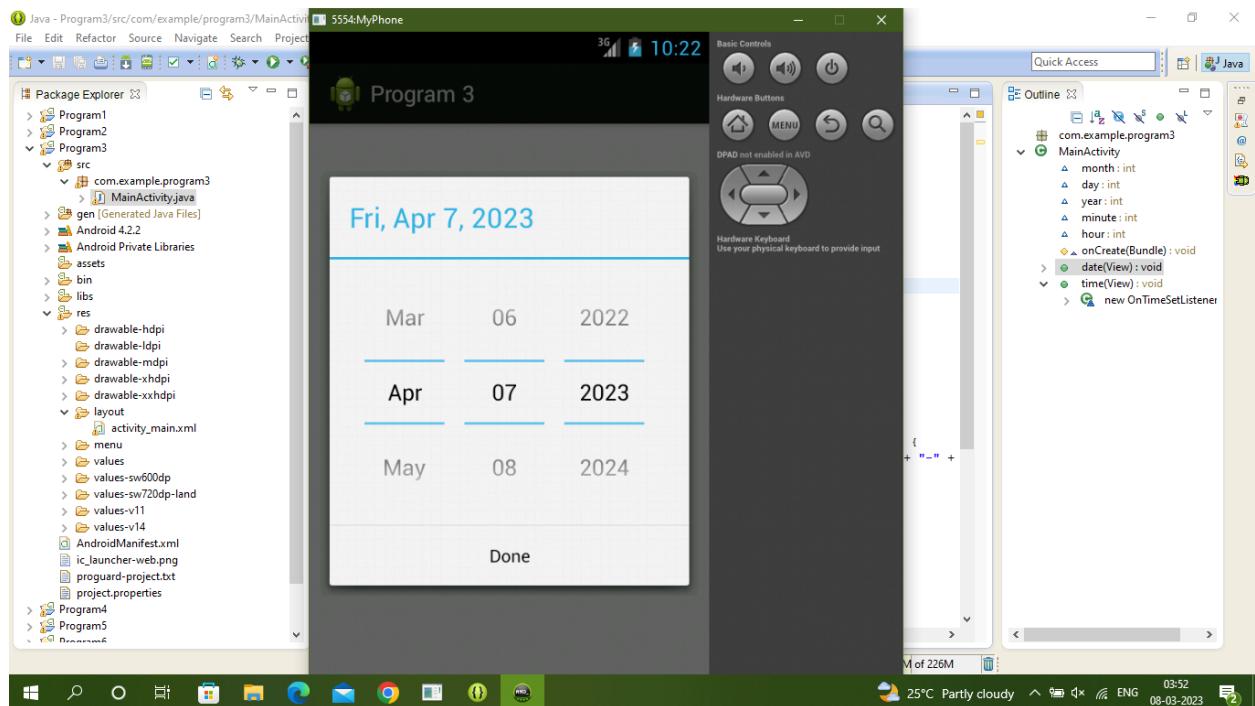
import java.util.Calendar;
import android.os.Bundle;
import android.app.Activity;
import android.app.DatePickerDialog;
import android.app.TimePickerDialog;
import android.view.View;
import android.widget.DatePicker;
import android.widget.TimePicker;
import android.widget.Toast;

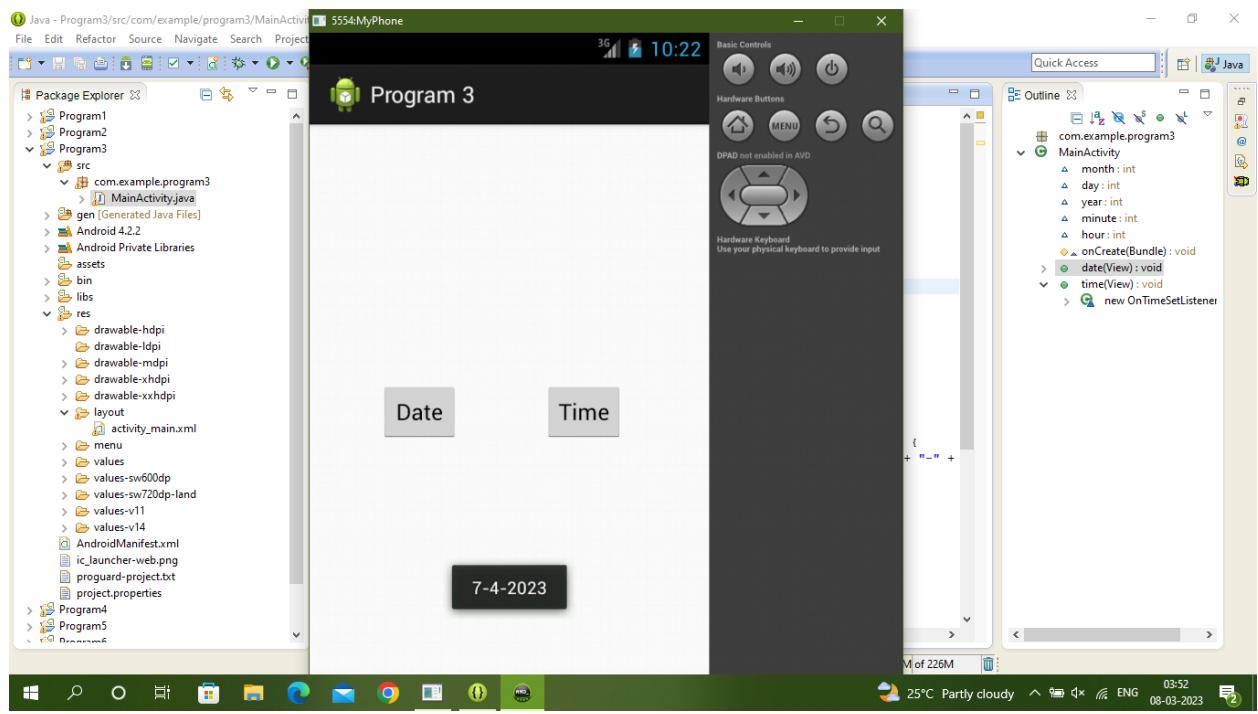
public class MainActivity extends Activity {
    int month,day,year,minute,hour;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void date(View v)
    {
        Calendar c = Calendar.getInstance();
        year = c.get(Calendar.YEAR);
        month = c.get(Calendar.MONTH);
        day = c.get(Calendar.DAY_OF_MONTH);
        DatePickerDialog datePickerDialog = new DatePickerDialog(this,
            new DatePickerDialog.OnDateSetListener() {
                @Override
                public void onDateSet(DatePicker view, int year,
                    int monthOfYear, int dayOfMonth) {
                    Toast.makeText(getApplicationContext(),dayOfMonth + "-" + (monthOfYear + 1)
                    + "-" + year,Toast.LENGTH_LONG).show();
                }
            }, year, month, day);
        datePickerDialog.show();
    }
    public void time(View v)
    {
        Calendar c = Calendar.getInstance();
        hour = c.get(Calendar.HOUR_OF_DAY);
```

```

        minute = c.get(Calendar.MINUTE);
        TimePickerDialog timePickerDialog = new TimePickerDialog(this,
                new TimePickerDialog.OnTimeSetListener() {
                    @Override
                    public void onTimeSet(TimePicker view, int hourOfDay,
                            int minutes) {
                        Toast.makeText(getApplicationContext(),hourOfDay + ":" +
                                minutes,Toast.LENGTH_LONG).show();
                    }
                }, hour, minute, false);
        timePickerDialog.show();
    }
}

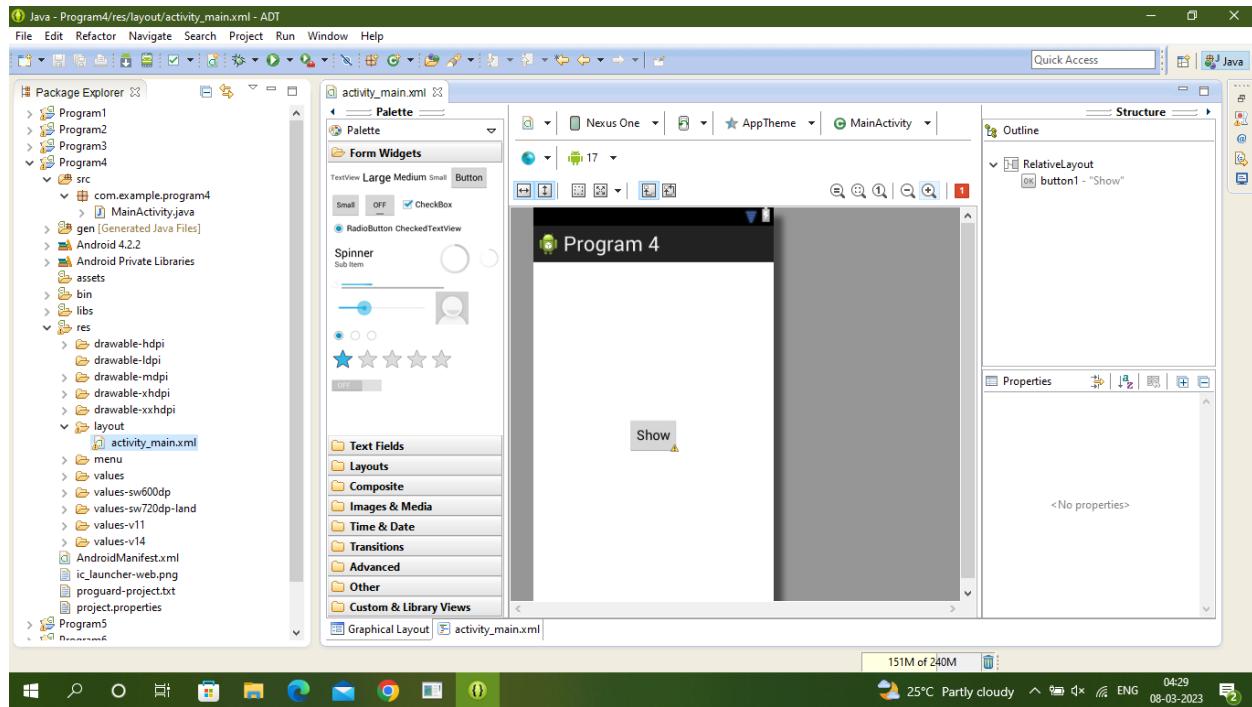
```





Program 4: Write a program to Display an alert box with OK and Cancel

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="show"
        android:text="Show" />

</RelativeLayout>
```

MainActivity.java

```
package com.example.program4;
```

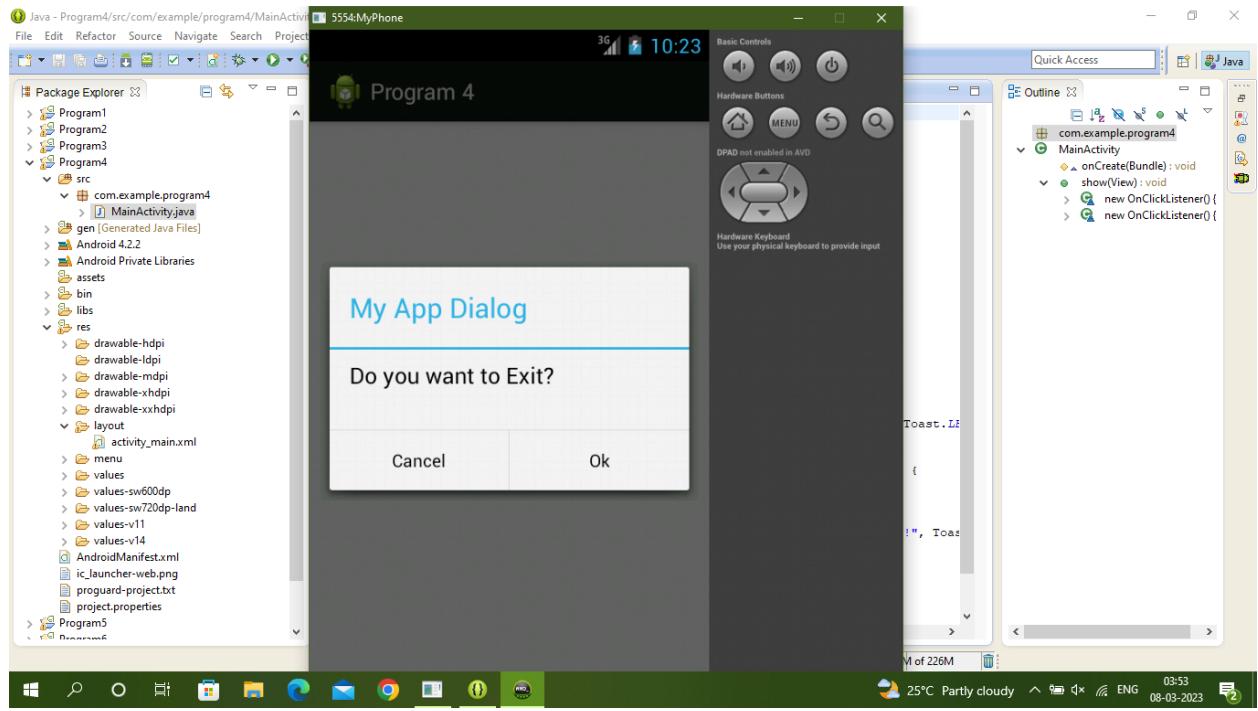
```
import android.os.Bundle;
```

```
import android.view.View;
import android.widget.Toast;
import android.app.Activity;
import android.app.AlertDialog;
import android.content.DialogInterface;

public class MainActivity extends Activity {

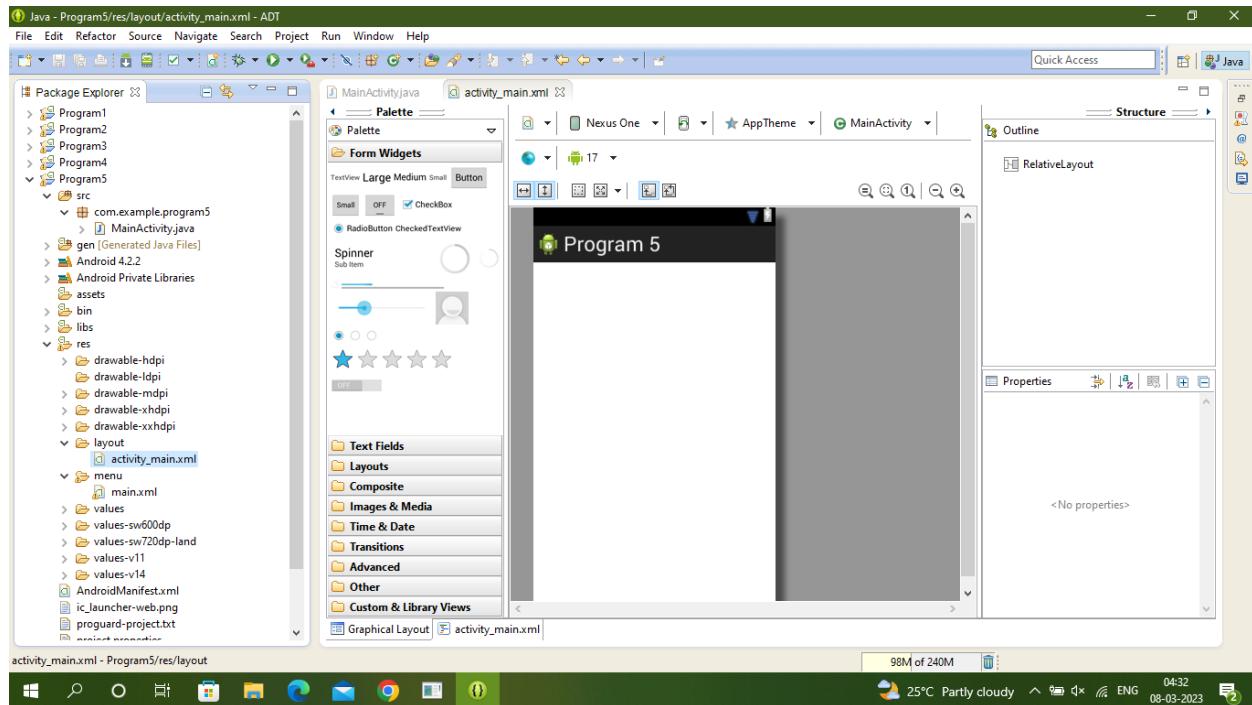
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void show(View v)
    {
        AlertDialog.Builder b= new AlertDialog.Builder(this);
        b.setCancelable(true);
        b.setTitle("My App Dialog");
        b.setMessage("Do you want to Exit?");
        b.setPositiveButton("Ok", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface arg0, int arg1) {
                Toast.makeText(getApplicationContext(), "You pressed OK!",
Toast.LENGTH_LONG).show();
            }
        });
        b.setNegativeButton("Cancel", new DialogInterface.OnClickListener() {

            @Override
            public void onClick(DialogInterface arg0, int arg1) {
                Toast.makeText(getApplicationContext(), "You pressed Cancel!",
Toast.LENGTH_LONG).show();
            }
        });
        AlertDialog a = b.create();
        a.show();
    }
}
```



Program 5: Write a Program to create menu with three menu items

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

</RelativeLayout>
```

menu > main.xml

```
<menu xmlns:android="http://schemas.android.com/apk/res/android" >
    <item android:id="@+id/item1"
        android:title="Login"></item>
    <item android:id="@+id/item2"
        android:title="Rating"></item>
    <item android:id="@+id/item3"
        android:title="Exit"></item>
</menu>
```

MainActivity.java

```
package com.example.program5;

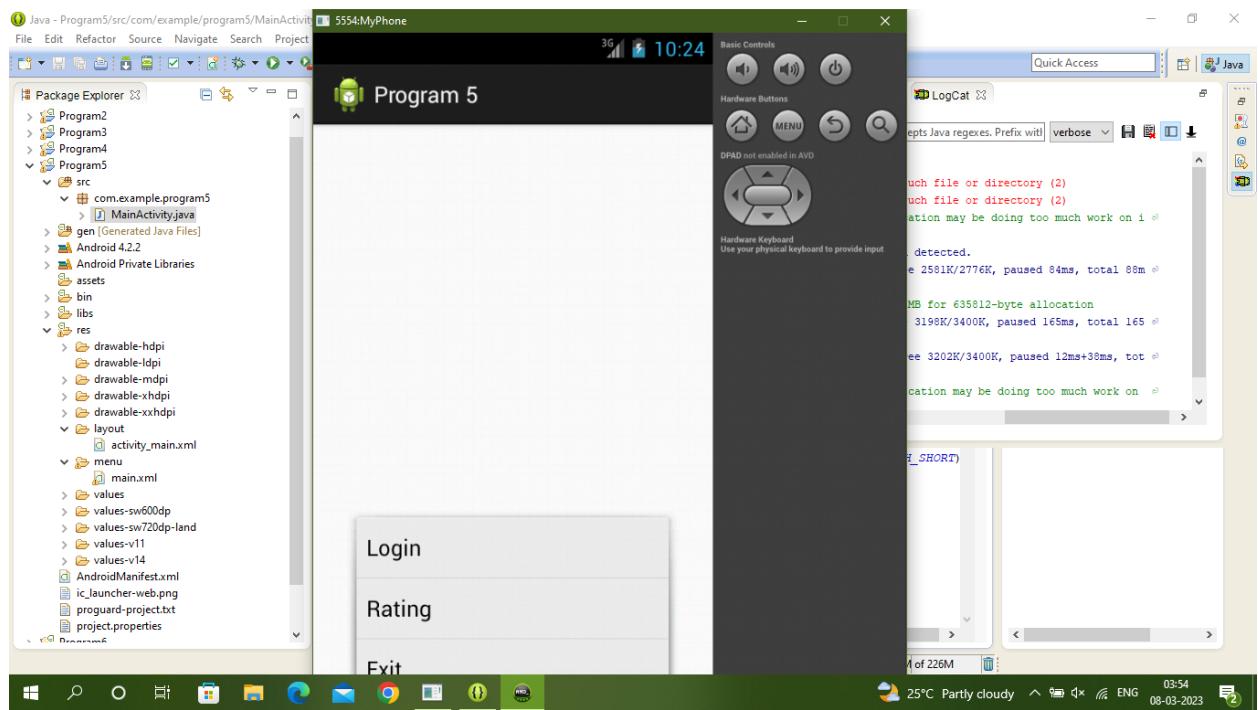
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.Toast;

public class MainActivity extends Activity {

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

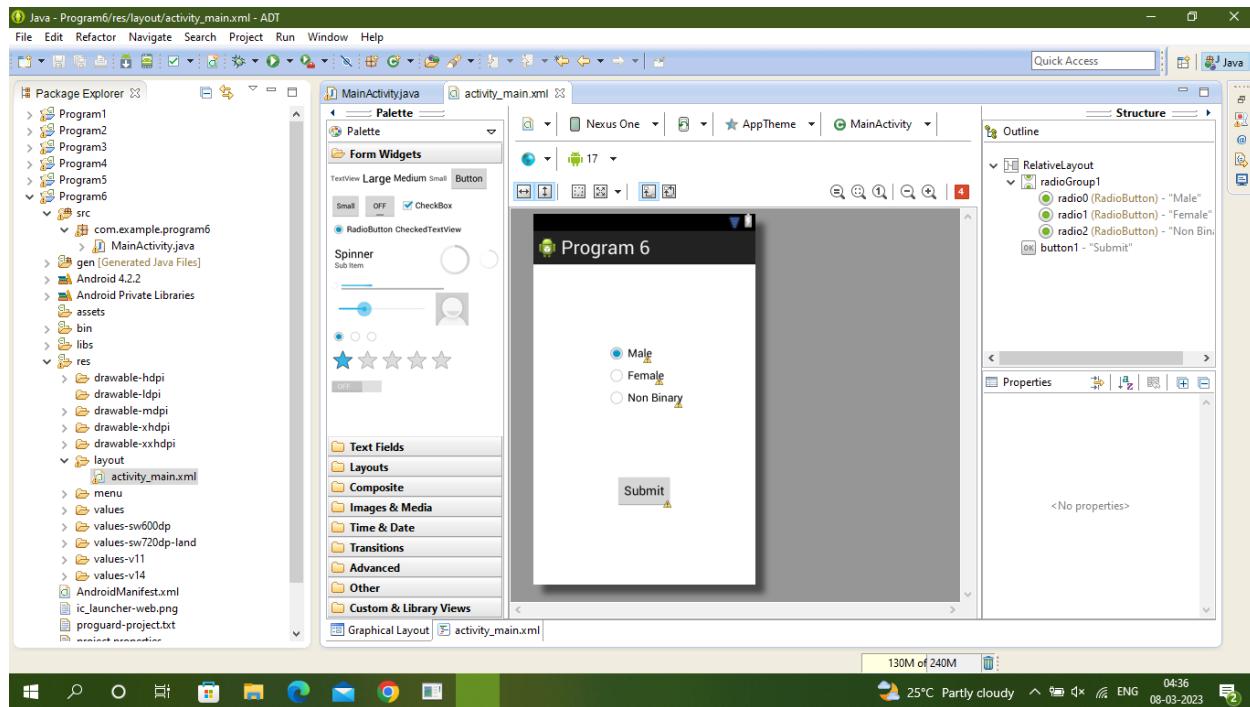
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.main, menu);
        return true;
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        Toast.makeText(this, "Selected Item: " + item.getTitle(), Toast.LENGTH_SHORT)
            .show();
        return true;
    }
}
```



Program 6: Write a Program to Select gender using radio button

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <RadioGroup
        android:id="@+id/radioGroup1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" >

        <RadioButton
            android:id="@+id/radio0"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:checked="true"
            android:text="Male" />

        <RadioButton
            android:id="@+id/radio1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Female" />

        <RadioButton
            android:id="@+id/radio2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Non Binary" />

    </RadioGroup>
    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Submit" />

```

```

        android:id="@+id/radio1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Female" />

<RadioButton
    android:id="@+id/radio2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Non Binary" />
</RadioGroup>

<Button
    android:id="@+id/button1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="submit"
    android:text="Submit" />

</RelativeLayout>

```

MainActivity.java

```

package com.example.program6;

import android.os.Bundle;
import android.app.Activity;
import android.view.View;
import android.widget.RadioButton;
import android.widget.Toast;

public class MainActivity extends Activity {
    RadioButton r1,r2,r3;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        r1=(RadioButton)findViewById(R.id.radio0);
        r2=(RadioButton)findViewById(R.id.radio1);
        r3=(RadioButton)findViewById(R.id.radio2);
    }

    public void submit(View v)

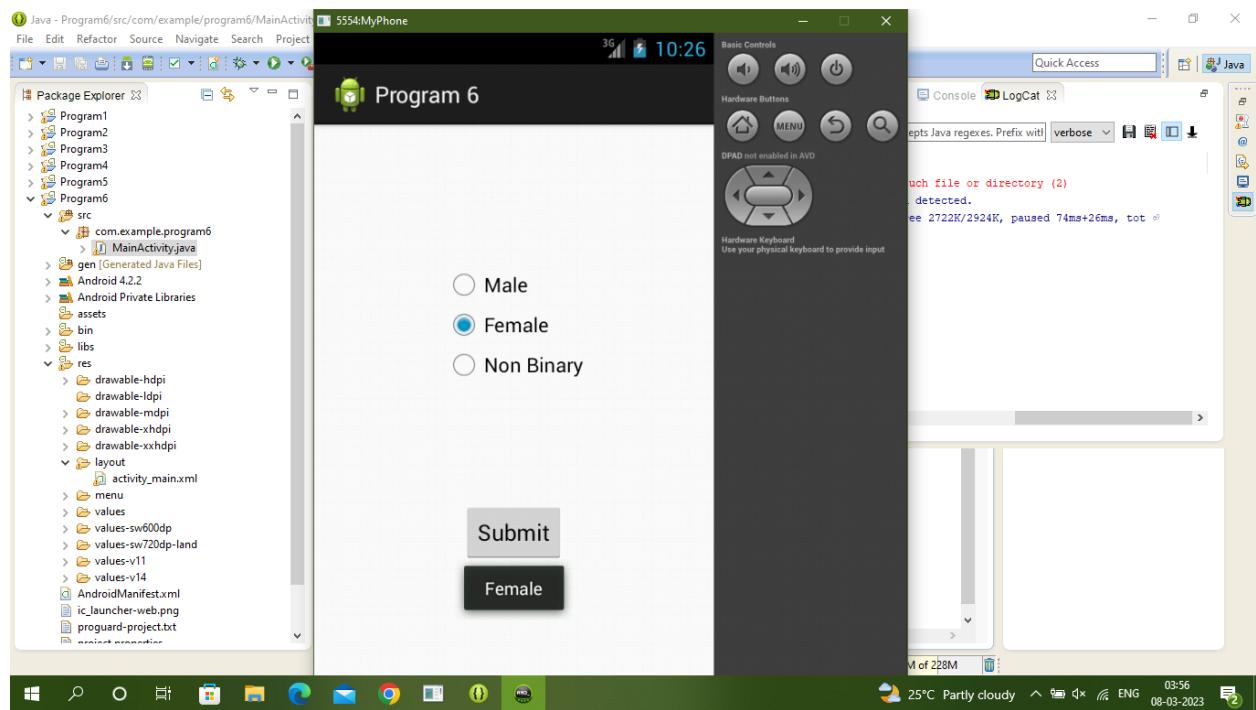
```

```

{
    if(r1.isChecked()==true)
    {
        Toast.makeText(this, "Male", Toast.LENGTH_LONG).show();
    }
    else if(r2.isChecked()==true)
    {
        Toast.makeText(this, "Female", Toast.LENGTH_LONG).show();
    }
    else
    {
        Toast.makeText(this, "Non Binary", Toast.LENGTH_LONG).show();
    }
}
}

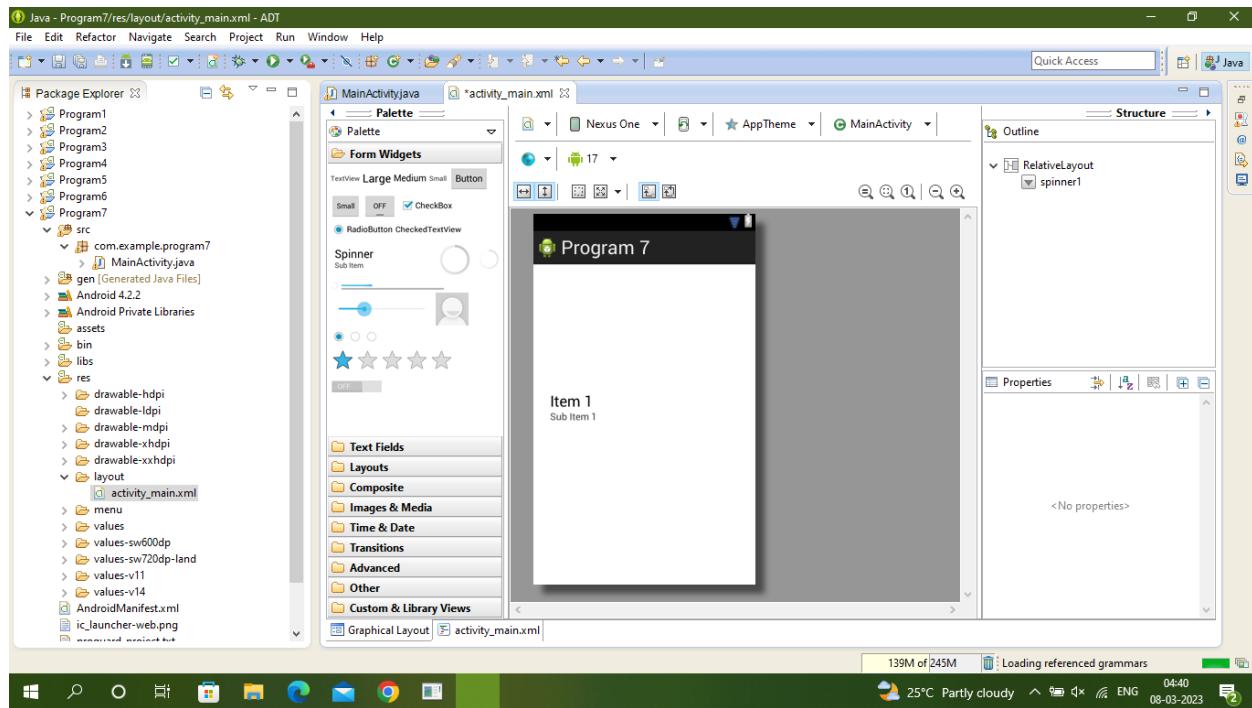
```

}



Program 7: Write a Program to Spin the four items

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <Spinner
        android:id="@+id/spinner1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />

</RelativeLayout>
```

MainActivity.java

```
package com.example.program7;
```

```
import android.os.Bundle;
import android.app.Activity;
import android.view.View;
```

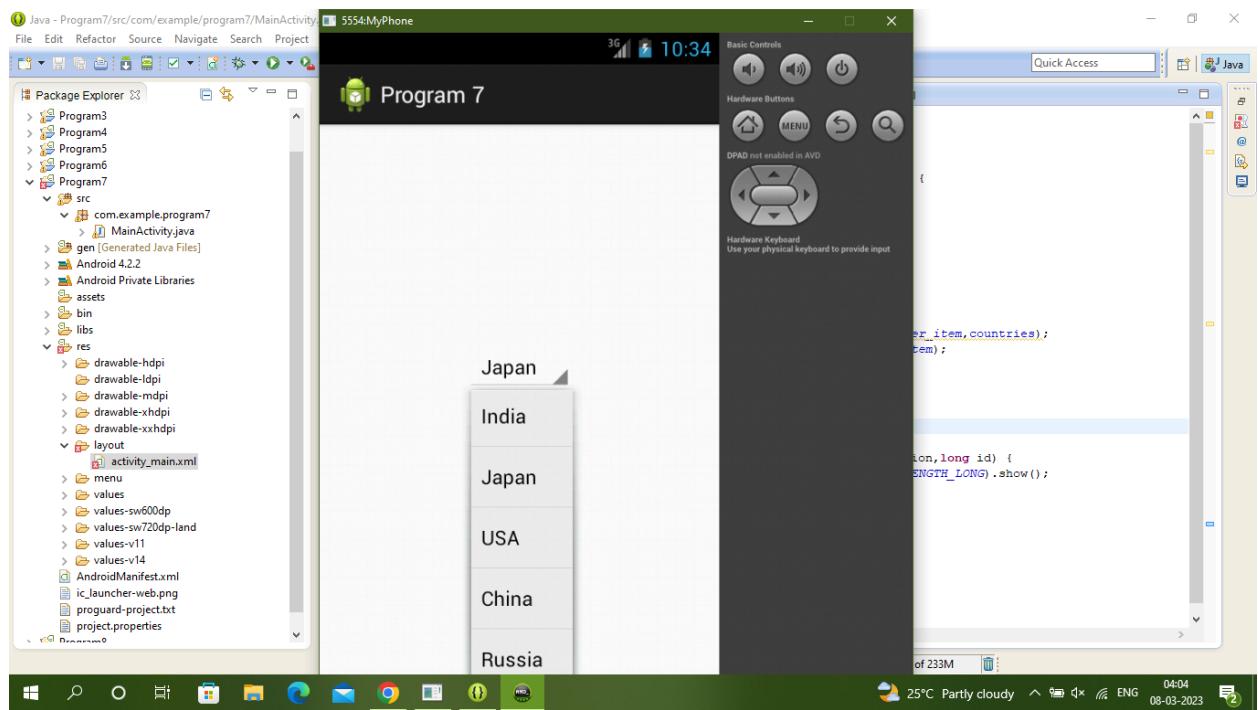
```
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemSelectedListener;
import android.widget.ArrayAdapter;
import android.widget.Spinner;
import android.widget.Toast;

public class MainActivity extends Activity implements OnItemSelectedListener {
    String[] countries={"India","Japan","USA","China","Russia"};
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Spinner spin = (Spinner) findViewById(R.id.spinner1);
        spin.setOnItemSelectedListener(this);

        ArrayAdapter a = new ArrayAdapter(this,android.R.layout.simple_spinner_item,countries);
        a.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
        spin.setAdapter(a);
    }
    public void onItemSelected(AdapterView<?> arg0, View arg1, int position,long id) {
        Toast.makeText(getApplicationContext(), countries[position],
        Toast.LENGTH_LONG).show();
    }

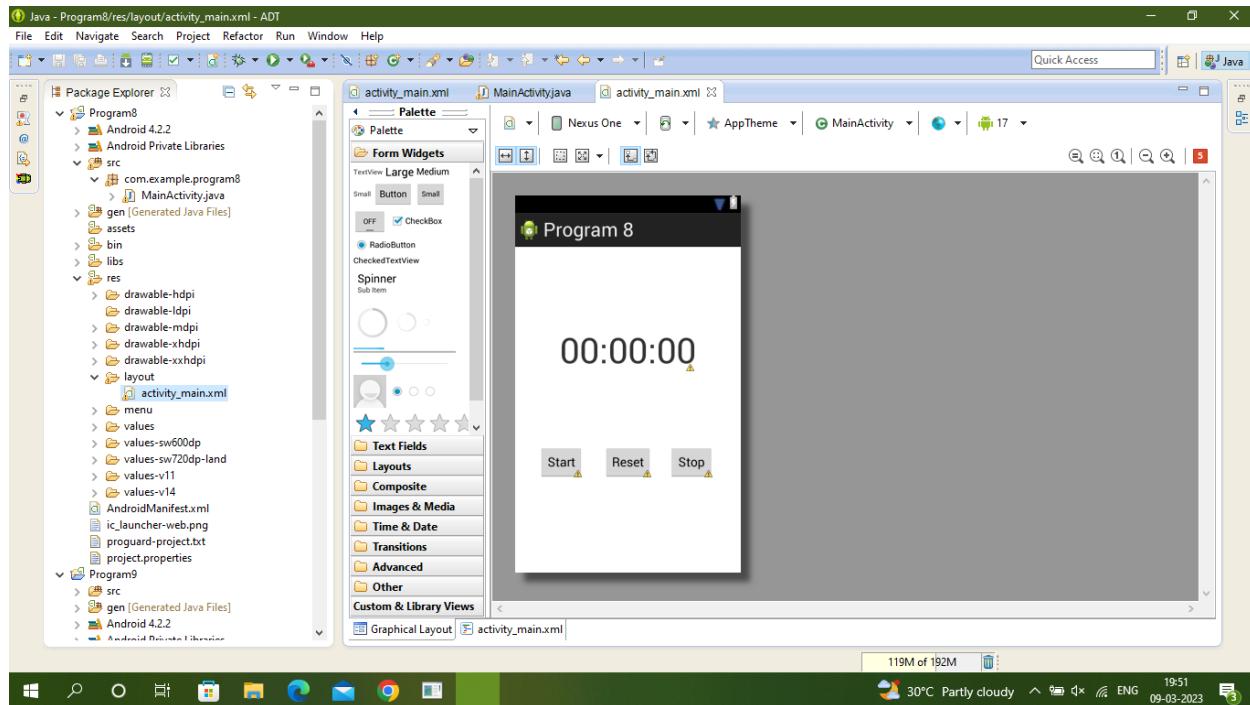
    public void onNothingSelected(AdapterView<?> arg0) {

    }
}
```



Program 8: Write a program to display Stopwatch

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="50dp"
        android:text="00:00:00" />

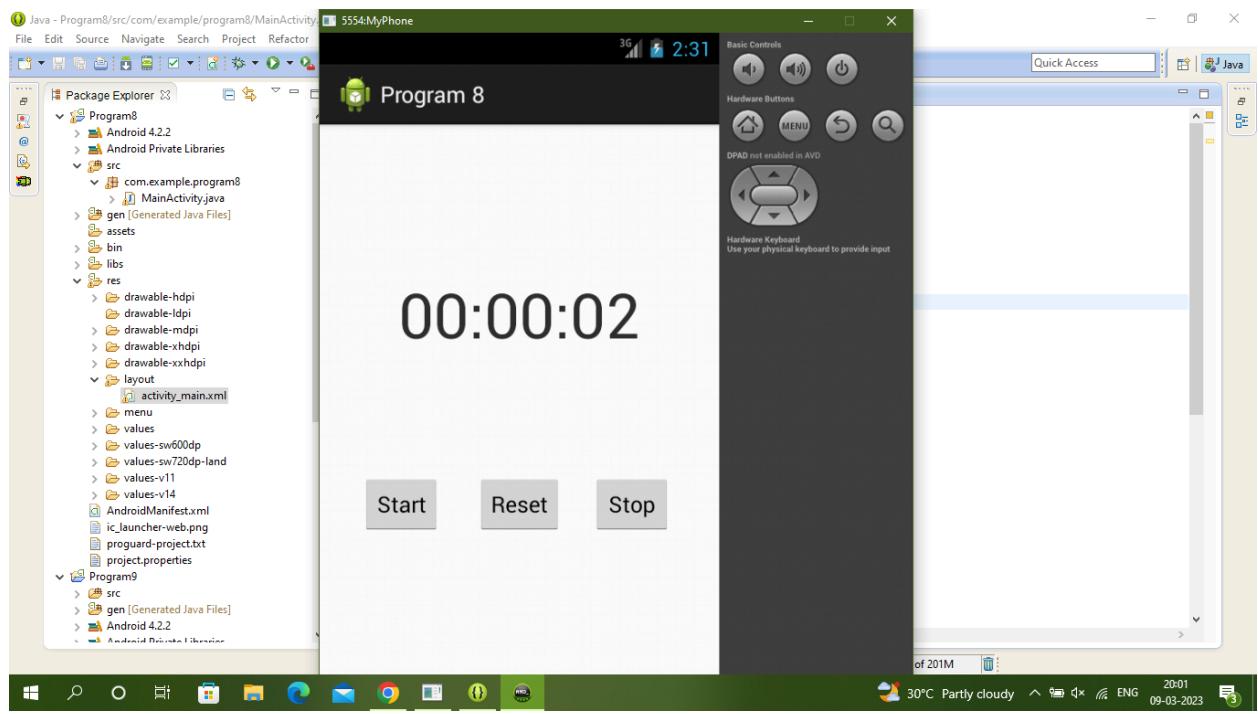
    <Button
        android:id="@+id/button3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="stop"
        android:text="Stop" />
```

```
<Button  
    android:id="@+id/button2"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:onClick="reset"  
    android:text="Reset" />  
  
<Button  
    android:id="@+id/button1"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:onClick="start"  
    android:text="Start" />  
  
</RelativeLayout>
```

MainActivity.java

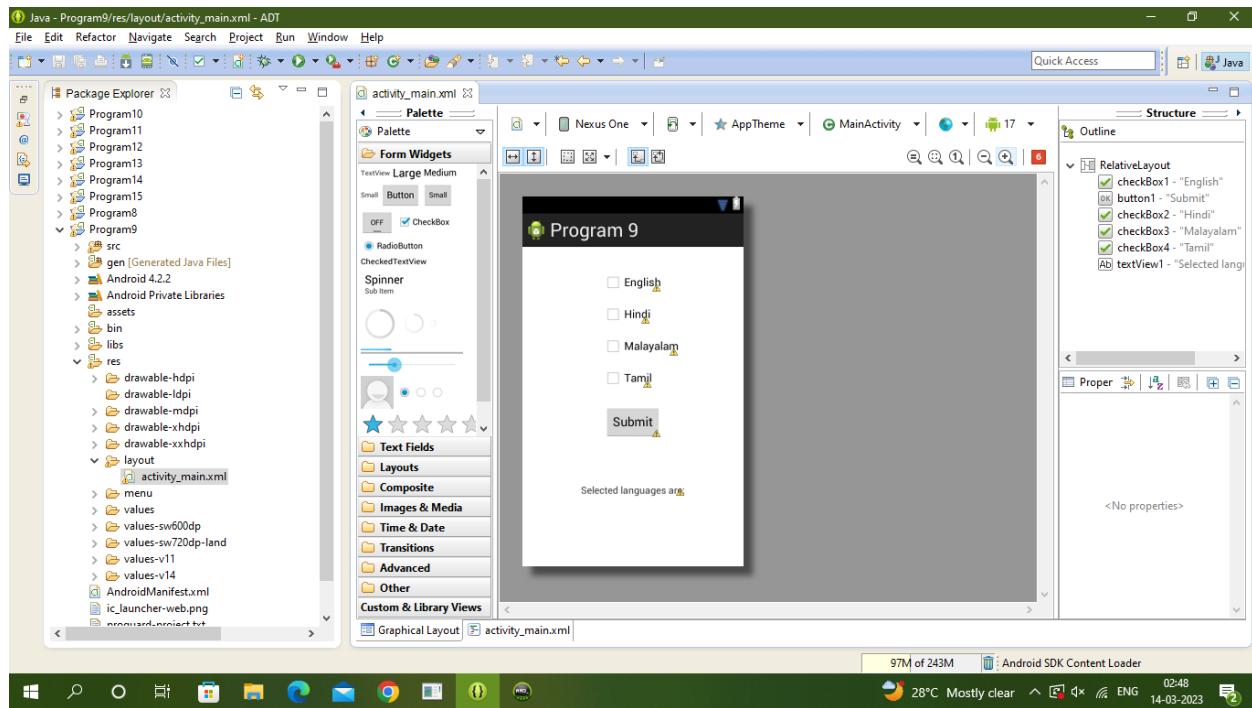
```
package com.example.program8;  
  
import java.util.Locale;  
  
import android.os.Bundle;  
import android.os.Handler;  
import android.app.Activity;  
import android.view.View;  
import android.widget.TextView;  
  
public class MainActivity extends Activity {  
    TextView t;  
    int running=0;  
    int seconds=0;  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
        t=(TextView)findViewById(R.id.textView1);  
        stopwatch();  
    }  
  
    public void start(View v)  
    {  
        running =1;  
    }
```

```
public void stopwatch()
{
    final Handler handler
        = new Handler();
    handler.post(new Runnable() {
        @Override
        public void run()
        {
            int hours = seconds / 3600;
            int minutes = (seconds % 3600) / 60;
            int secs = seconds % 60;
            String time
                = String
                    .format(Locale.getDefault(),
                        "%02d:%02d:%02d", hours,
                        minutes, secs);
            t.setText(time);
            if (running==1) {
                seconds++;
            }
            handler.postDelayed(this, 1000);
        }
    });
}
public void stop(View v)
{
    running=0;
}
public void reset(View v)
{
    running=0;
    seconds=0;
}
}
```



Program 9: Write a program to check the items listed

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <CheckBox
        android:id="@+id/checkBox1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="English" />

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="submit"
        android:text="Submit" />
```

```

<CheckBox
    android:id="@+id/checkBox2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Hindi" />

<CheckBox
    android:id="@+id/checkBox3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Malayalam" />

<CheckBox
    android:id="@+id/checkBox4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Tamil" />

<TextView
    android:id="@+id/textView1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Selected languages are:" />

</RelativeLayout>

```

MainActivity.java

```

package com.example.program9;

import android.os.Bundle;
import android.app.Activity;
import android.view.View;
import android.widget.CheckBox;
import android.widget.TextView;

public class MainActivity extends Activity {
    CheckBox c1,c2,c3,c4;
    TextView t;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        c1=(CheckBox)findViewById(R.id.checkBox1);

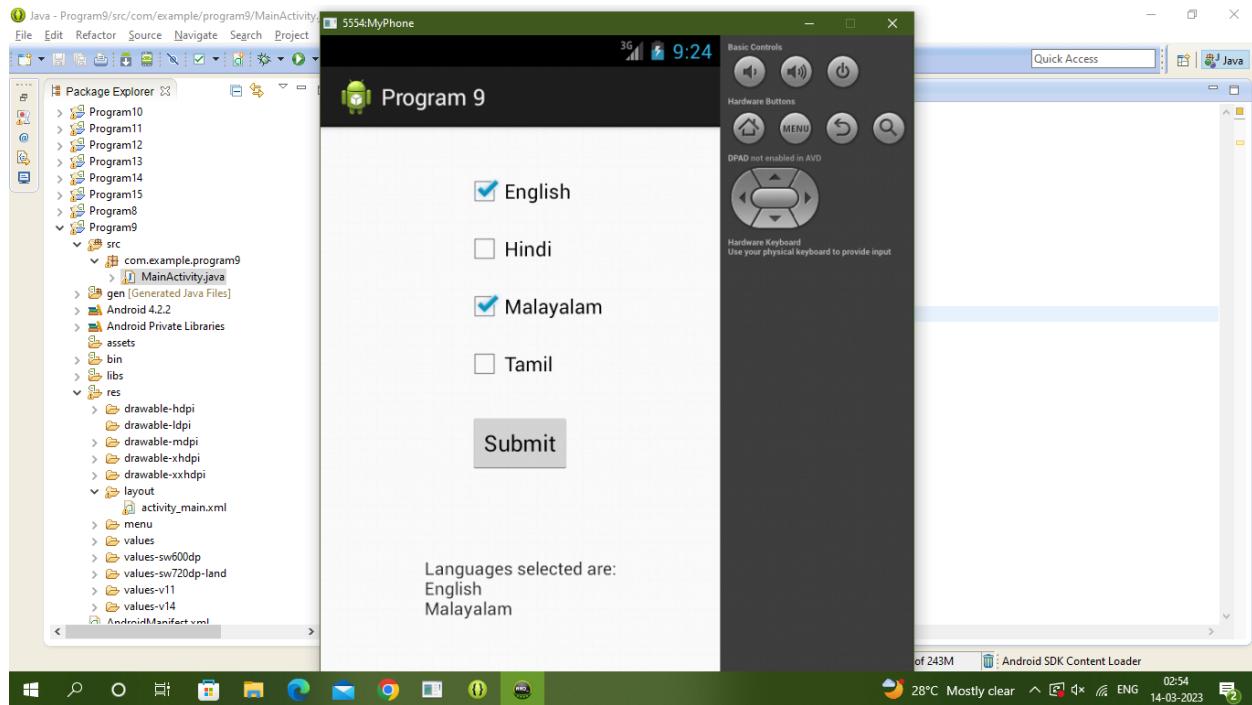
```

```

        c2=(CheckBox)findViewById(R.id.checkBox2);
        c3=(CheckBox)findViewById(R.id.checkBox3);
        c4=(CheckBox)findViewById(R.id.checkBox4);
        t=(TextView)findViewById(R.id.textView1);
    }

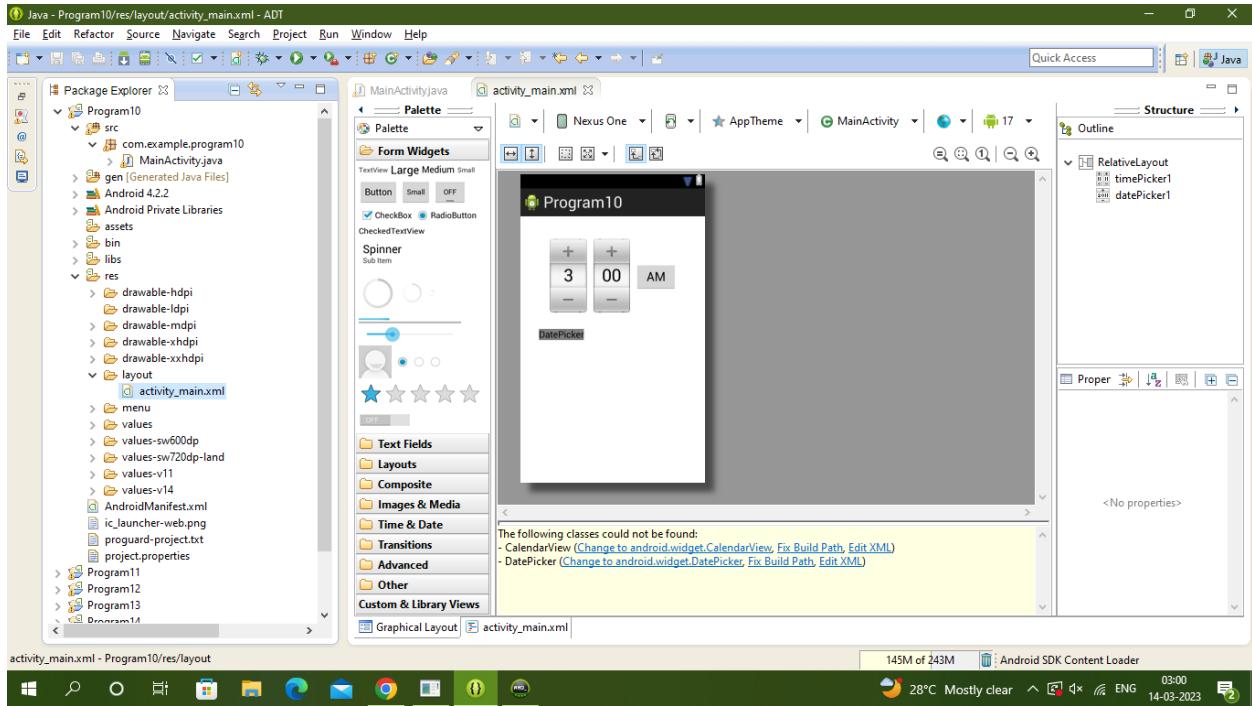
    public void submit(View v)
    {
        String selected="Languages selected are:";
        if(c1.isChecked()==true)
            selected=selected+"\nEnglish";
        if(c2.isChecked()==true)
            selected=selected+"\nHindi";
        if(c3.isChecked()==true)
            selected=selected+"\nMalayalam";
        if(c4.isChecked()==true)
            selected=selected+"\nTamil";
        t.setText(selected);
    }
}

```



Program 10: Write a program to select current system time using DateTime Pickers.

activity_main.xml
(For this please draw the date picker as in output)



```
<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" >

    <TimePicker
        android:id="@+id/timePicker1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />

    <DatePicker
        android:id="@+id/datePicker1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />

</RelativeLayout>
```

MainActivity.java

```
package com.example.program10;

import java.util.Calendar;

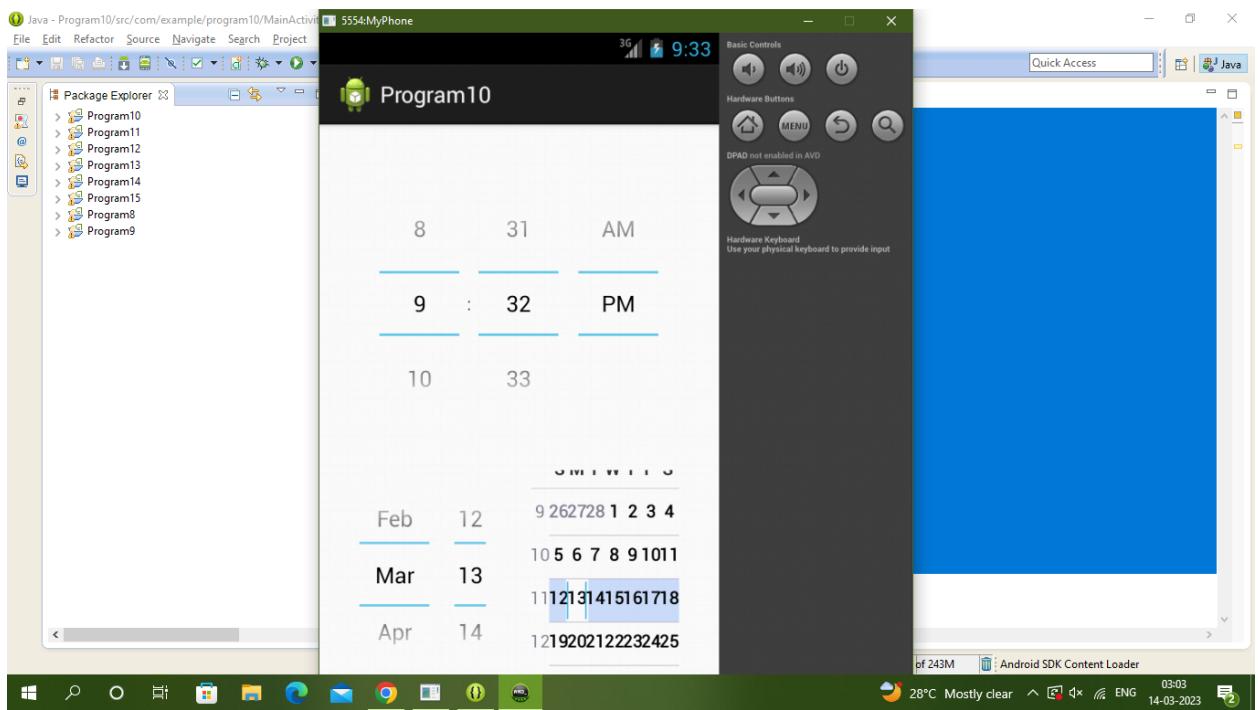
import android.os.Bundle;
import android.app.Activity;
import android.widget.DatePicker;
import android.widget.TimePicker;

public class MainActivity extends Activity {
    TimePicker tp;
    DatePicker dp;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tp=(TimePicker)findViewById(R.id.timePicker1);
        dp=(DatePicker)findViewById(R.id.datePicker1);
        Calendar cal = Calendar.getInstance();

        int year = cal.get(Calendar.YEAR);
        int month = cal.get(Calendar.MONTH);
        int day = cal.get(Calendar.DAY_OF_MONTH);
        int hour = cal.get(Calendar.HOUR_OF_DAY);
        int min = cal.get(Calendar.MINUTE);

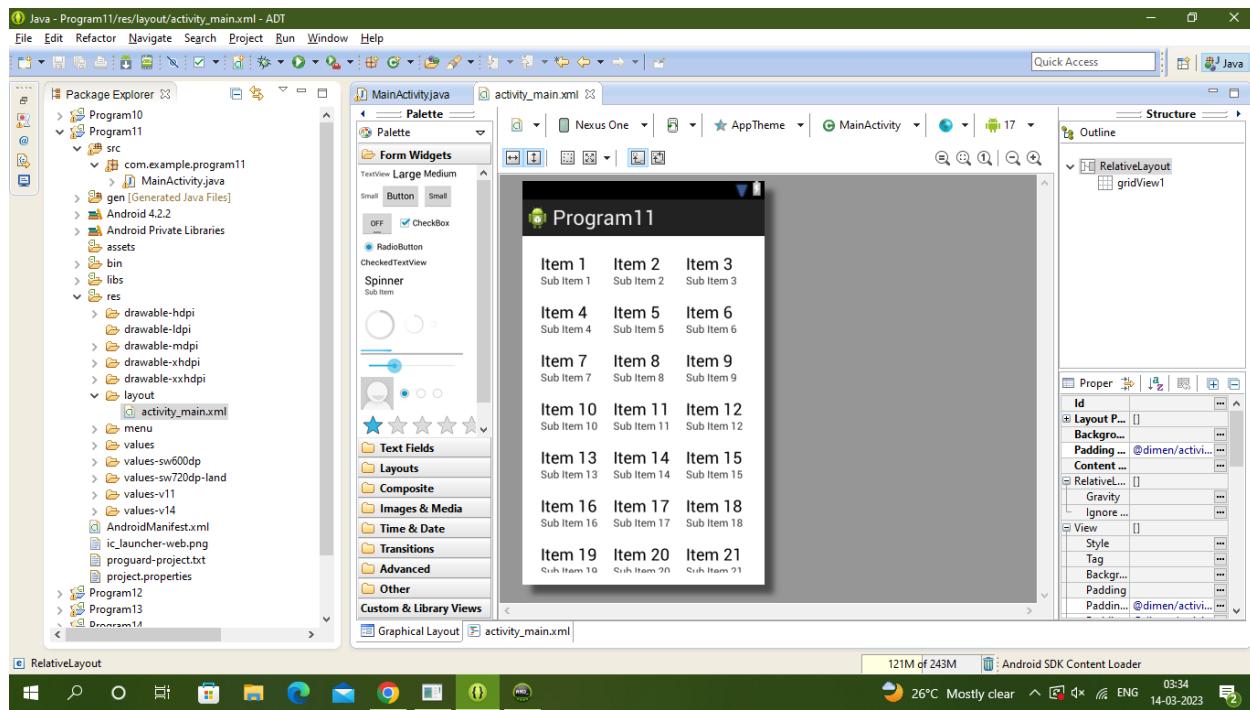
        dp.updateDate(year, month, day);

        tp.setCurrentHour(hour);
        tp.setCurrentMinute(min);
    }
}
```



Program 11: Write a program to display contacts using GridView control

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <GridView
        android:id="@+id/gridView1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true"
        android:numColumns="3" >
    </GridView>

</RelativeLayout>
```

AndroidManifest.xml

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

MainActivity.java

```
package com.example.program11;

import android.os.Bundle;
import android.provider.Contacts.People;
import android.support.v4.widget.SimpleCursorAdapter;
import android.app.Activity;
import android.database.Cursor;
import android.widget.GridView;

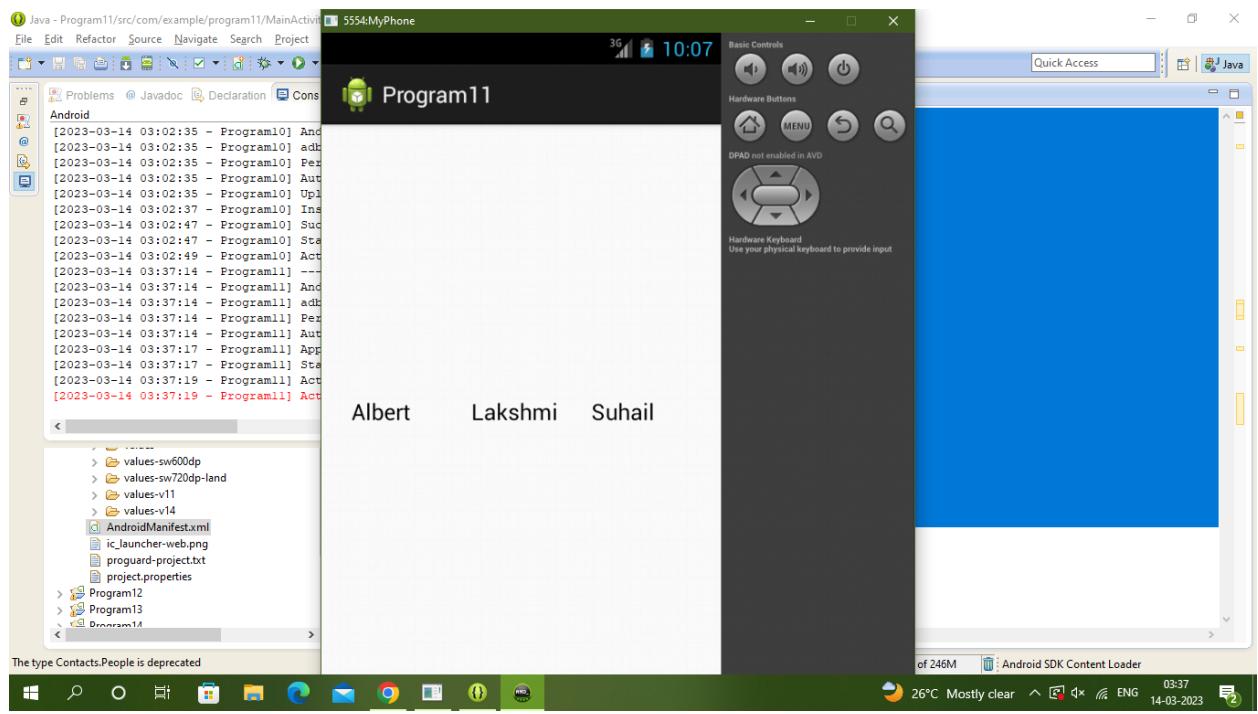
public class MainActivity extends Activity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        GridView gv = (GridView) findViewById(R.id.gridView1);

        Cursor c = managedQuery(People.CONTENT_URI,
                               null, null, null, People.NAME);

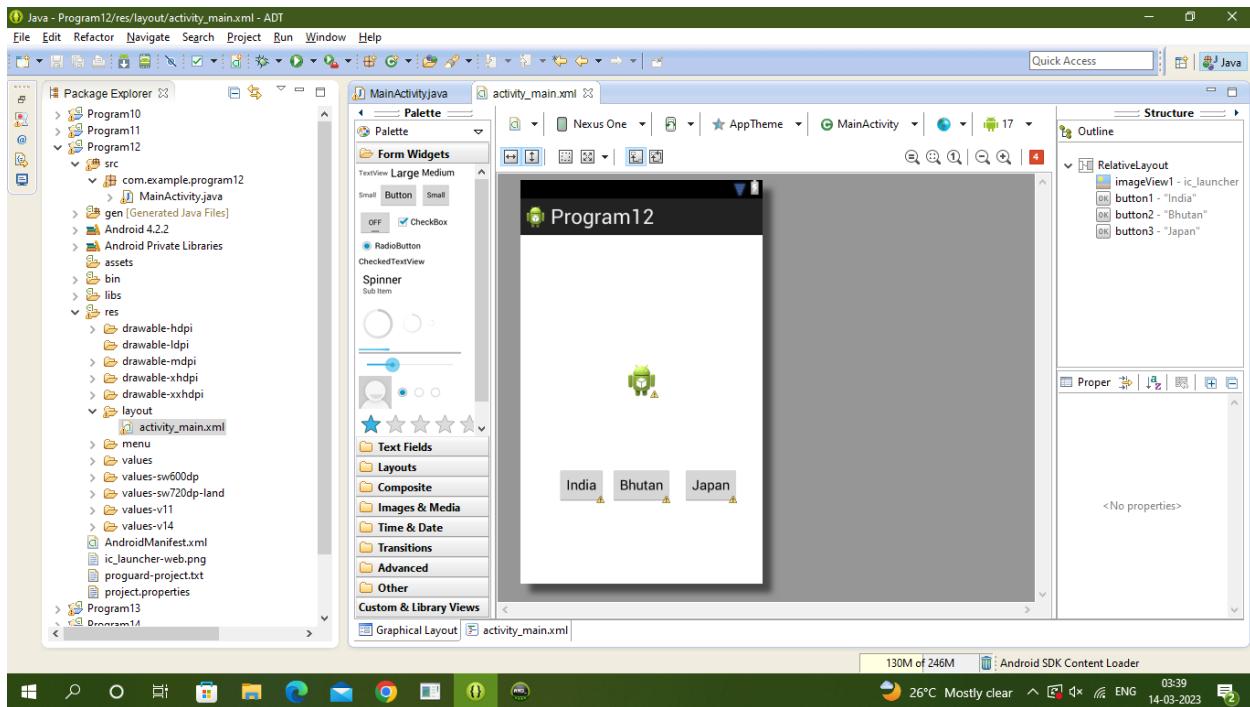
        String[] cols = new String[]{People.NAME};
        int[] views = new int[] {android.R.id.text1};

        SimpleCursorAdapter adapter = new SimpleCursorAdapter(this,
                android.R.layout.simple_list_item_1,
                c, cols, views);
        gv.setAdapter(adapter);
    }
}
```



Program 12: Write a program to display images from local drive of the computer

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <ImageView
        android:id="@+id/imageView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:src="@drawable/ic_launcher" />

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="india"
        android:text="India" />

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="bhutan"
        android:text="Bhutan" />

    <Button
        android:id="@+id/button3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="japan"
        android:text="Japan" />

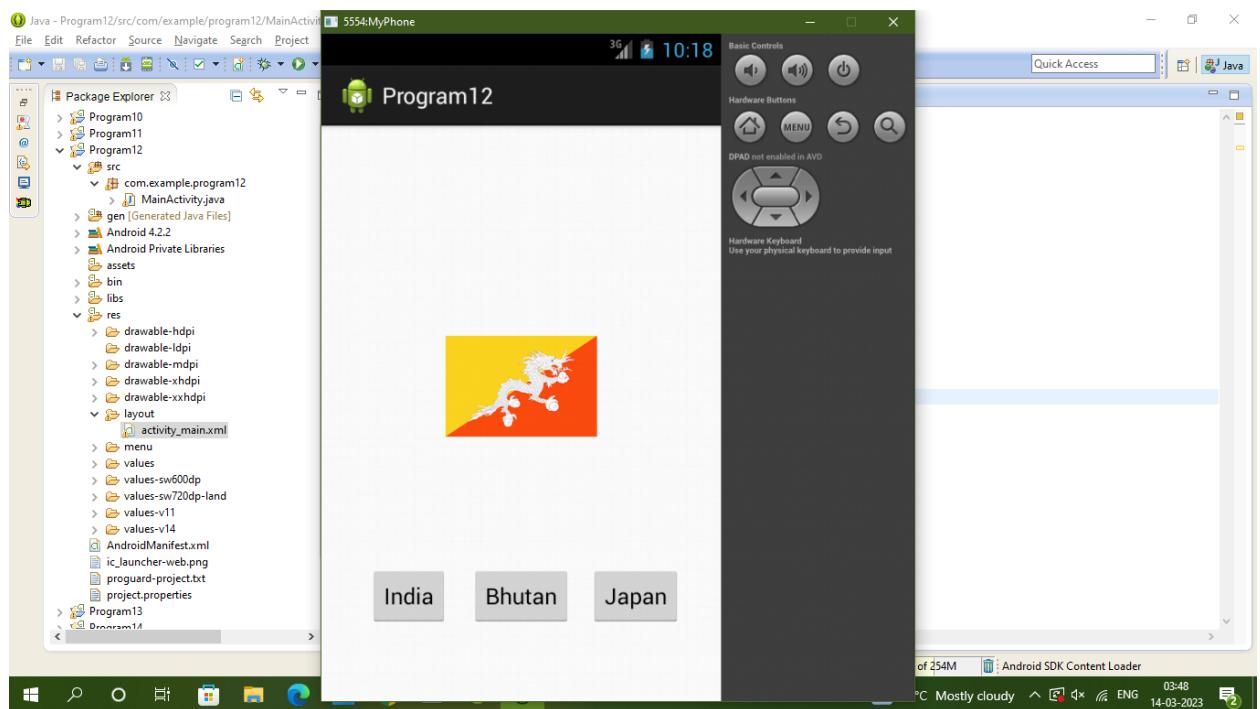
```

```
<Button  
    android:id="@+id/button2"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:onClick="bhutan"  
    android:text="Bhutan" />  
  
<Button  
    android:id="@+id/button3"  
    android:onClick="japan"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="Japan" />  
  
</RelativeLayout>
```

MainActivity.java

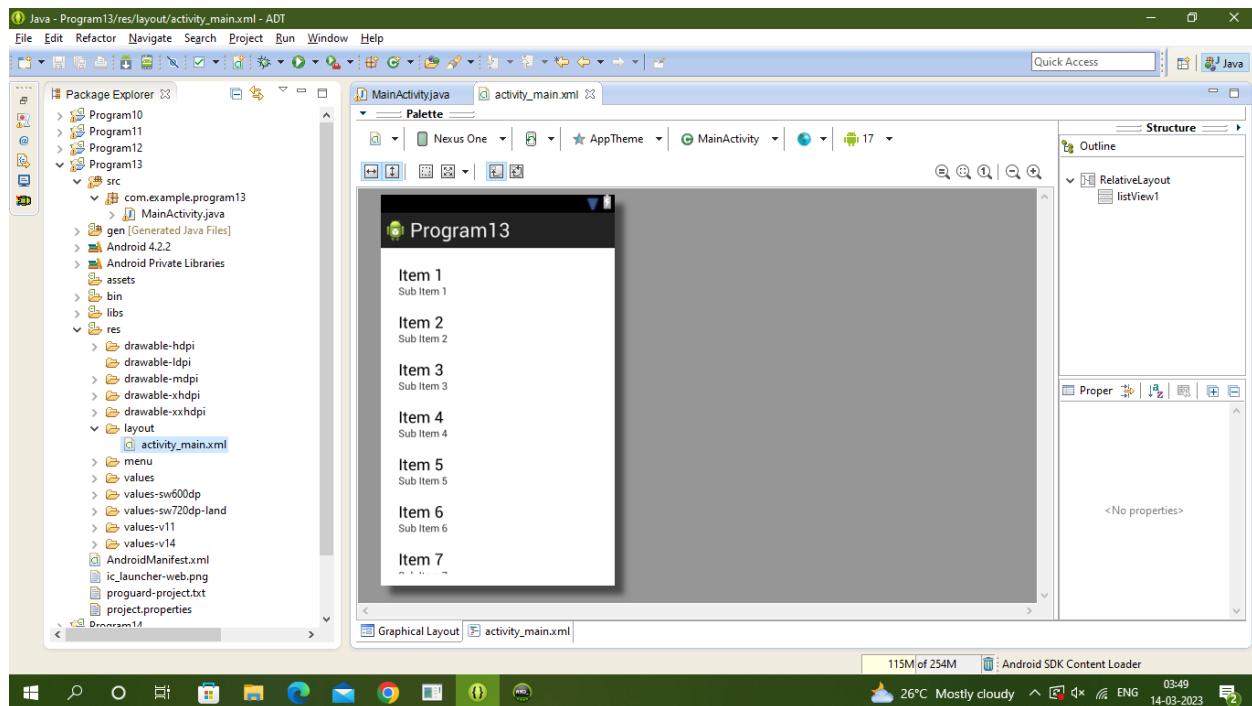
```
package com.example.program12;  
  
import android.os.Bundle;  
import android.app.Activity;  
import android.view.View;  
import android.widget.ImageView;  
  
public class MainActivity extends Activity {  
    ImageView i;  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
        i=(ImageView)findViewById(R.id.imageView1);  
    }  
  
    public void india(View v)  
    {  
        i.setImageResource(R.drawable.india);  
    }  
    public void bhutan(View v)  
    {  
        i.setImageResource(R.drawable.bhutan);  
    }  
    public void japan(View v)
```

```
{  
    i.setImageResource(R.drawable.japan);  
}  
}  
}
```



Program 13: Write a program to display the items in a list.

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <ListView
        android:id="@+id/listView1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" >
    </ListView>

</RelativeLayout>
```

single_item.xml

```
<?xml version="1.0" encoding="utf-8"?>
<TextView xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/label"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
```

```
    android:padding="10dip"
    android:textSize="16dip"
    android:textStyle="bold" >
</TextView>
```

MainActivity.java

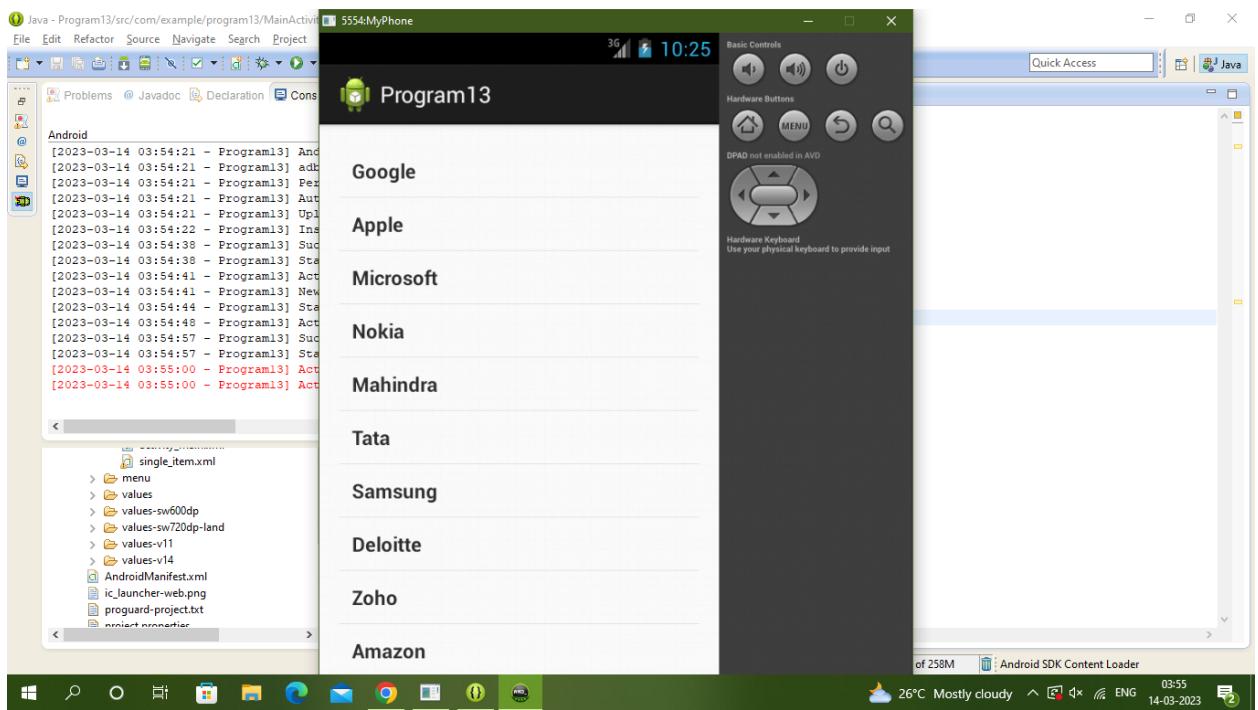
```
package com.example.program13;

import android.os.Bundle;
import android.app.Activity;
import android.widget.ArrayAdapter;
import android.widget.ListView;

public class MainActivity extends Activity {
    String[] companies = {"Google", "Apple", "Microsoft", "Nokia",
                          "Mahindra", "Tata", "Samsung", "Deloitte", "Zoho", "Amazon"};
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

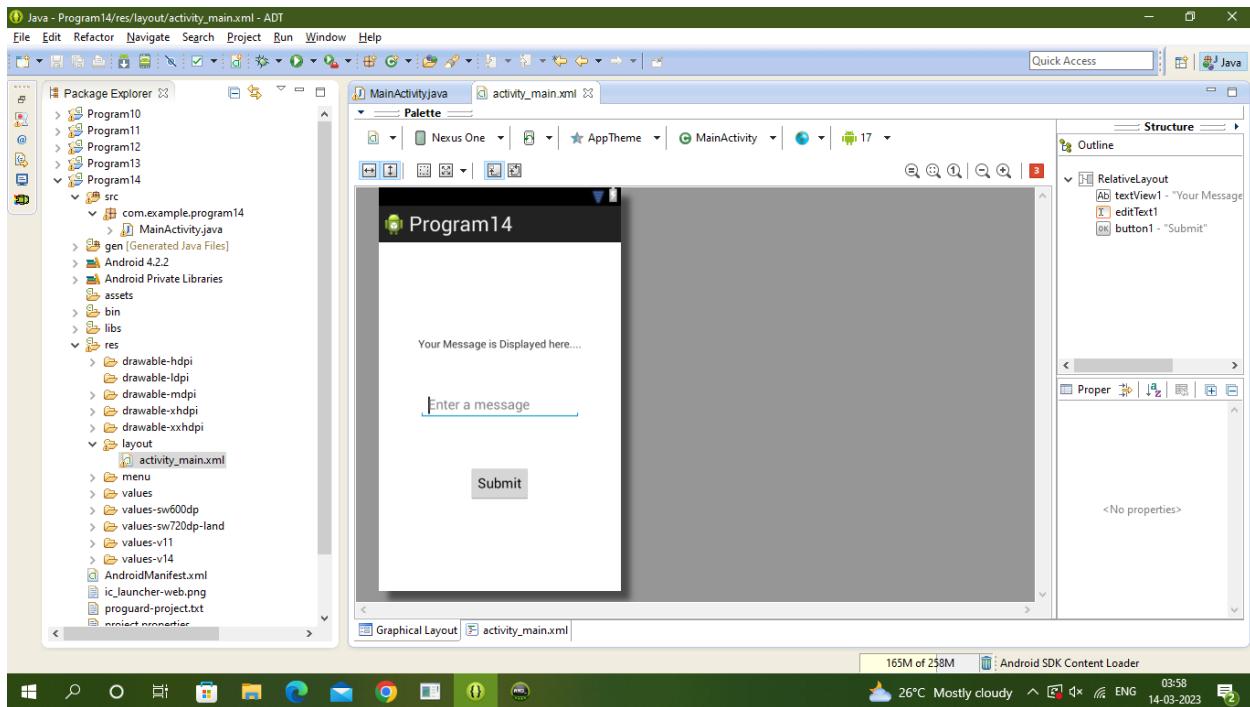
        ArrayAdapter adapter = new ArrayAdapter<String>(this,
            R.layout.single_item, companies);

        ListView listView = (ListView) findViewById(R.id.listView1);
        listView.setAdapter(adapter);
    }
}
```



Program 14: Write a program to fetch data from an EditText and display it in a TextView

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Your Message is Displayed here...." />

    <EditText
        android:id="@+id/editText1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:hint="Enter a message"
        >
```

```
<requestFocus />
</EditText>

<Button
    android:id="@+id/button1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="submit"
    android:text="Submit" />

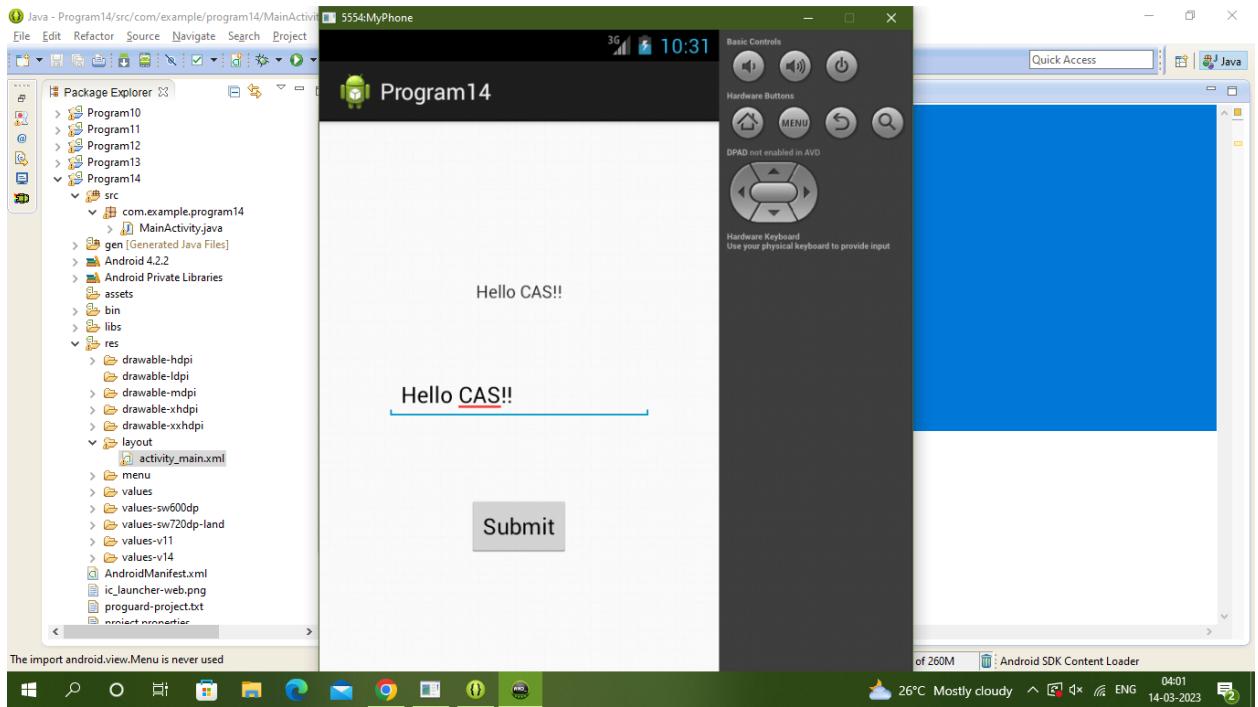
</RelativeLayout>
```

MainActivity.java

```
package com.example.program14;

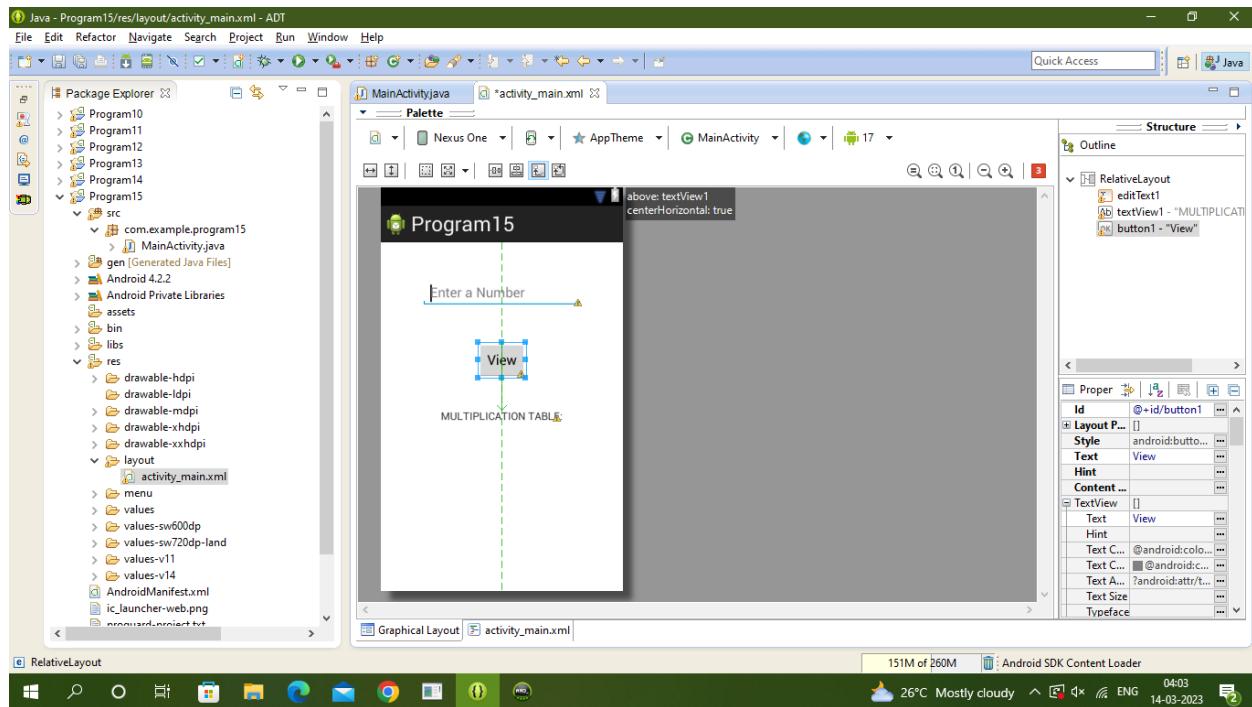
import android.os.Bundle;
import android.app.Activity;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends Activity {
    EditText e;
    TextView t;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        e=(EditText)findViewById(R.id.editText1);
        t=(TextView)findViewById(R.id.textView1);
    }
    public void submit(View v)
    {
        String message=e.getText().toString();
        t.setText(message);
    }
}
```



Program 15: Write a program to display the multiplication table of a given number

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <EditText
        android:id="@+id/editText1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:hint="Enter a Number" >

        <requestFocus />
    </EditText>

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />
```

```
    android:text="MULTIPLICATION TABLE:" />

<Button
    android:id="@+id/button1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="fun"
    android:text="View" />

</RelativeLayout>
```

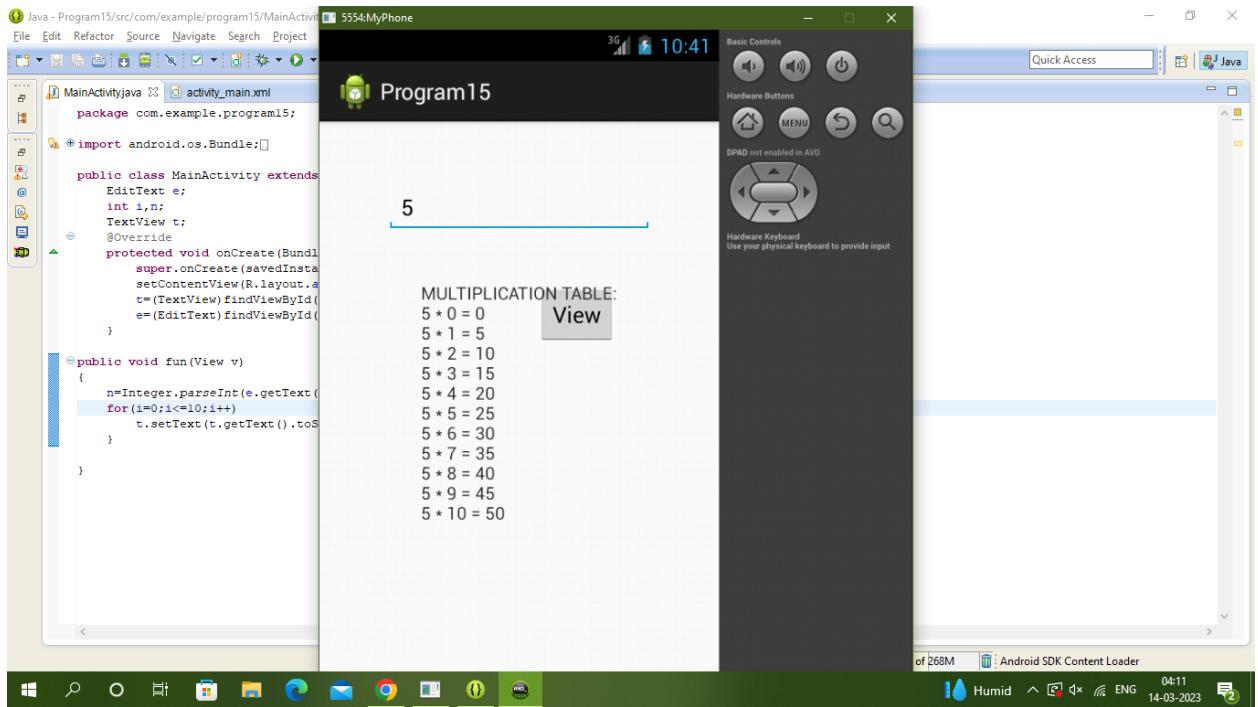
MainActivity.java

```
package com.example.program15;

import android.os.Bundle;
import android.app.Activity;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;

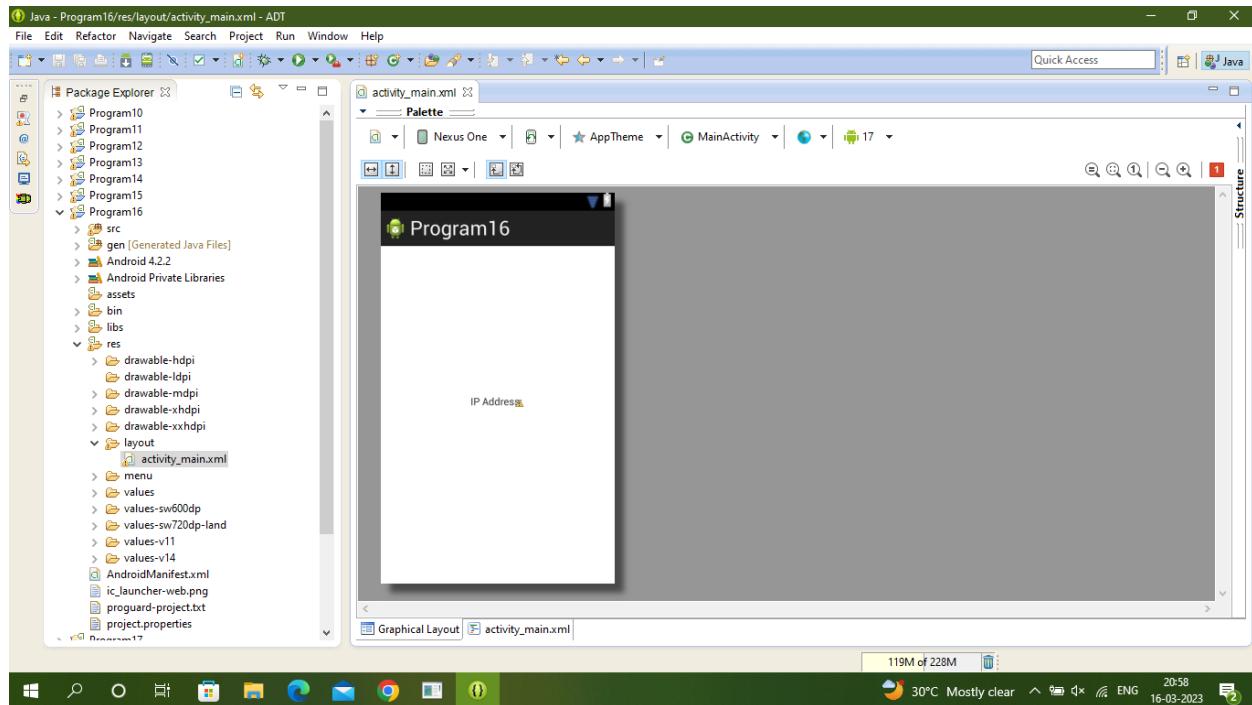
public class MainActivity extends Activity {
    EditText e;
    int i,n;
    TextView t;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        t=(TextView)findViewById(R.id.textView1);
        e=(EditText)findViewById(R.id.editText1);
    }

    public void fun(View v)
    {
        n=Integer.parseInt(e.getText().toString());
        for(i=0;i<=10;i++)
            t.setText(t.getText().toString()+"\n"+n+" * "+i+" = "+(i*n));
    }
}
```



Program 16: Write a program to get the IP address of a device

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/textView"
        android:text="IP Address: " />

</RelativeLayout>
```

AndroidManifest.xml

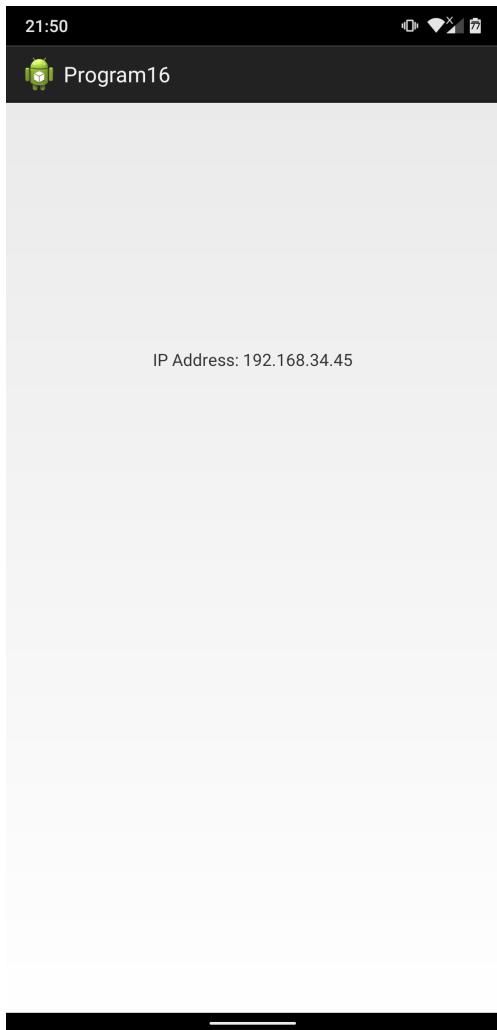
```
<uses-permission
    android:name="android.permission.ACCESS_WIFI_STATE"/>
```

MainActivity.java

```
package com.example.program16;

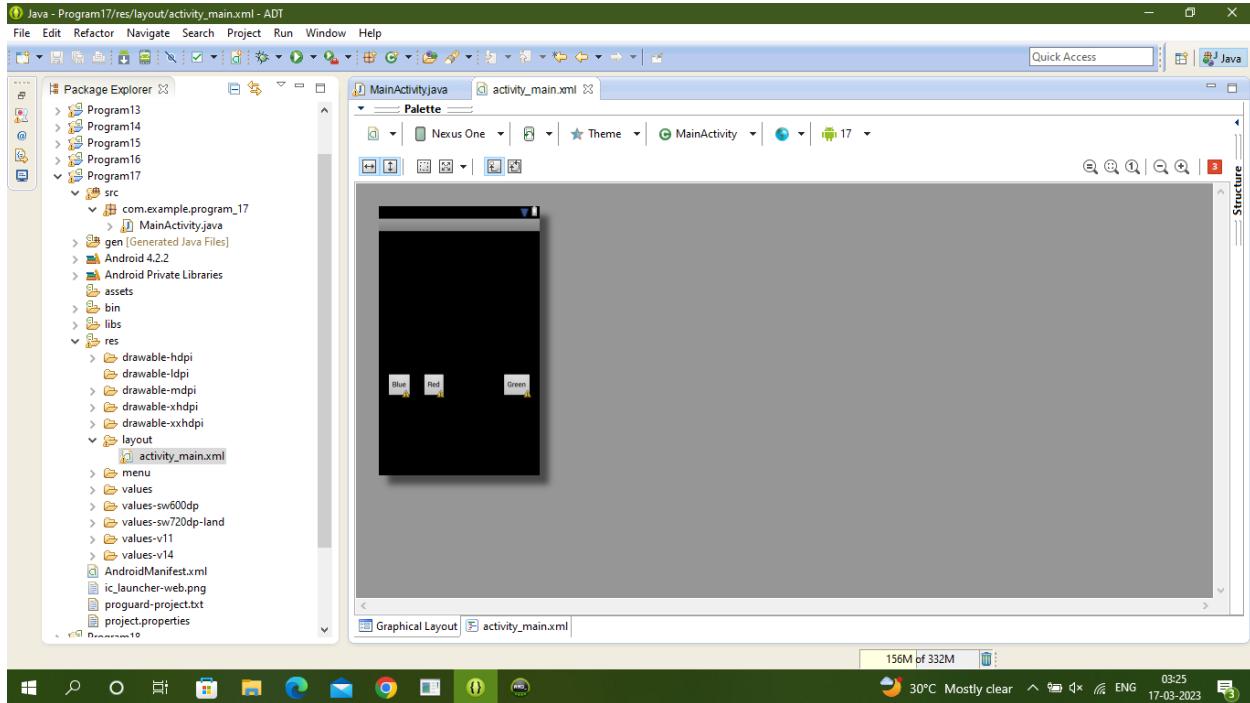
import android.net.wifi.WifiManager;
import android.os.Bundle;
import android.app.Activity;
import android.content.Context;
import android.text.format.Formatter;
import android.widget.TextView;

public class MainActivity extends Activity {
    TextView t;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Context context = getApplicationContext();
        t=(TextView)findViewById(R.id.textView);
        WifiManager wifi = (WifiManager) context.getSystemService(Context.WIFI_SERVICE);
        String ipaddr = Formatter.formatIpAddress(wifi.getConnectionInfo().getIpAddress());
        t.setText("IP Address: "+ipaddr);
    }
}
```



Program 17: Write a program to change the background colour of the activity

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:id="@+id/relativeLayout"
    tools:context=".MainActivity" >

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignBaseline="@+id/button1"
        android:onClick="red"
        android:text="Red" />

    <Button
        android:id="@+id/button3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignBaseline="@+id/button1"
        android:onClick="green"
        android:text="Green" />

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignBaseline="bottom"
        android:onClick="blue"
        android:text="Blue" />

```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="green"
    android:text="Green" />

<Button
    android:id="@+id/button1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"\n
    android:onClick="blue"
    android:text="Blue" />

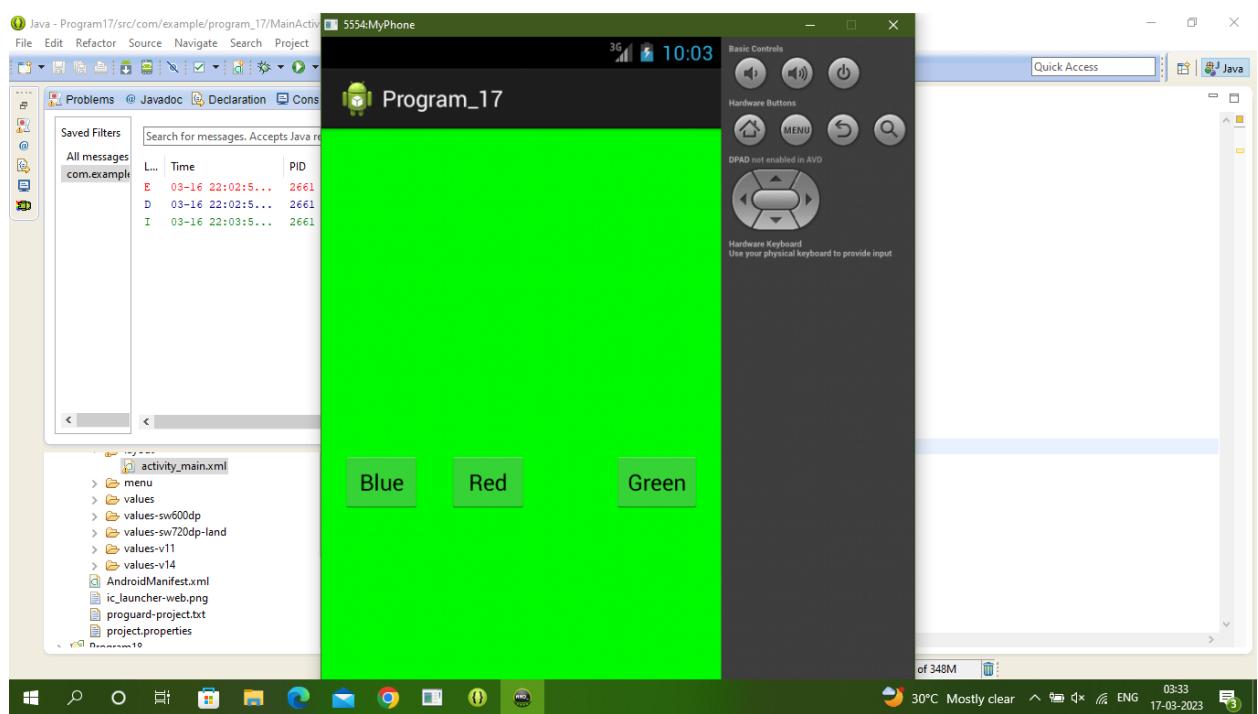
</RelativeLayout>
```

MainActivity.java

```
package com.example.program_17;

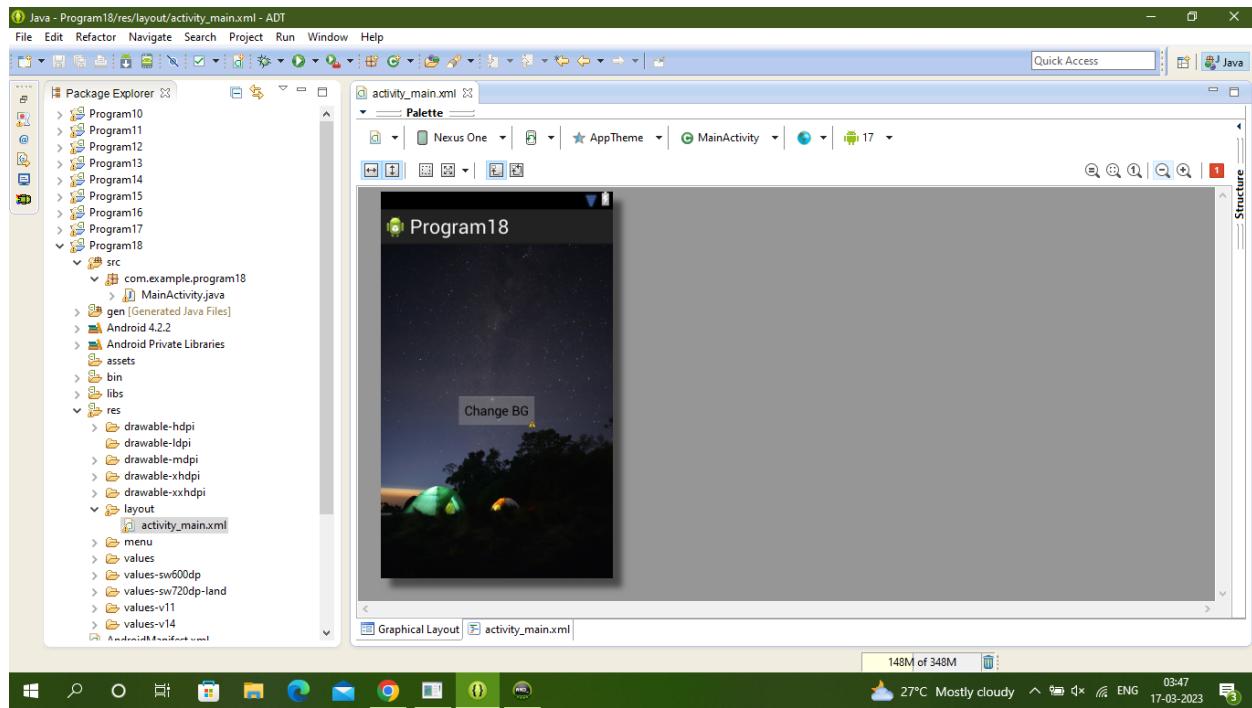
import android.os.Bundle;
import android.app.Activity;
import android.graphics.Color;
import android.view.View;
import android.widget.RelativeLayout;

public class MainActivity extends Activity {
    RelativeLayout r;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        r=(RelativeLayout)findViewById(R.id.relativeLayout);
    }
    public void red(View v)
    {
        r.setBackgroundColor(Color.RED);
    }
    public void green(View v)
    {
        r.setBackgroundColor(Color.GREEN);
    }
    public void blue(View v)
    {
        r.setBackgroundColor(Color.BLUE);
    }
}
```



Program 18: Write a program to change the background image

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:id="@+id/relativeLayout"
    android:background="@drawable/bg1"
    tools:context=".MainActivity" >

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="change"
        android:text="Change BG" />

</RelativeLayout>
```

MainActivity.java

```
package com.example.program18;
```

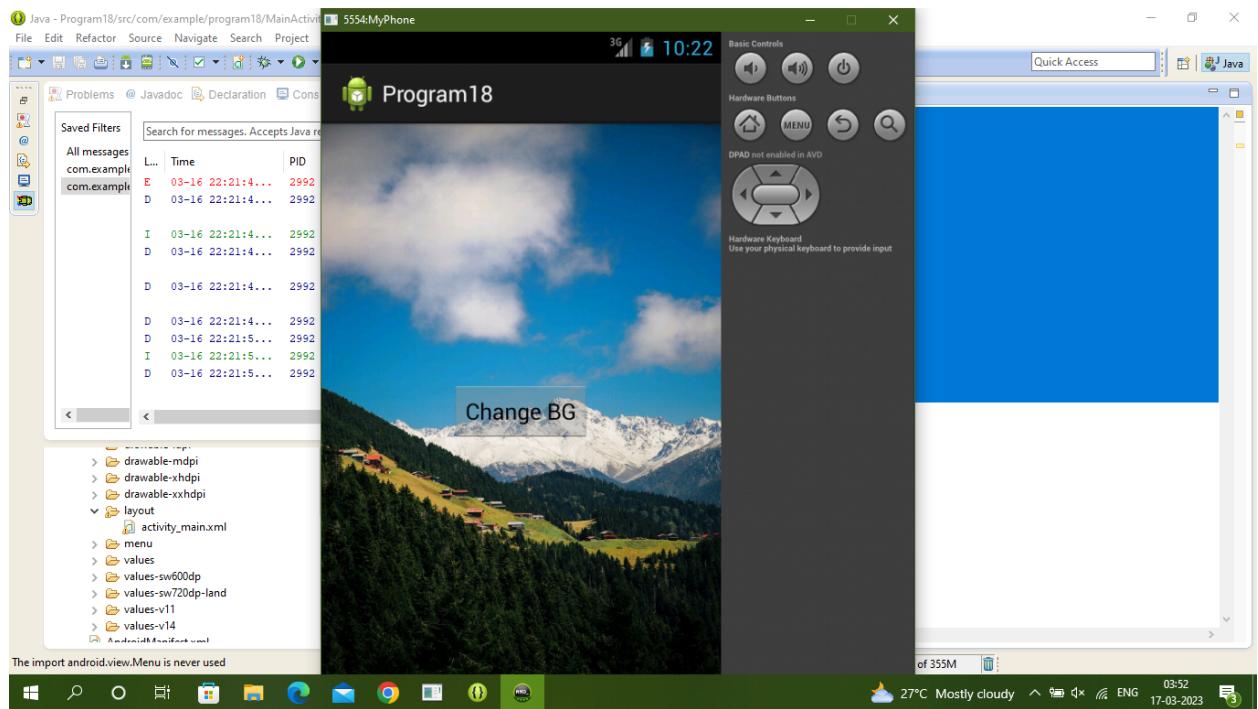
```

import android.os.Bundle;
import android.app.Activity;
import android.view.View;
import android.widget.RelativeLayout;

public class MainActivity extends Activity {
    RelativeLayout r;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        r=(RelativeLayout)findViewById(R.id.relativeLayout);
    }

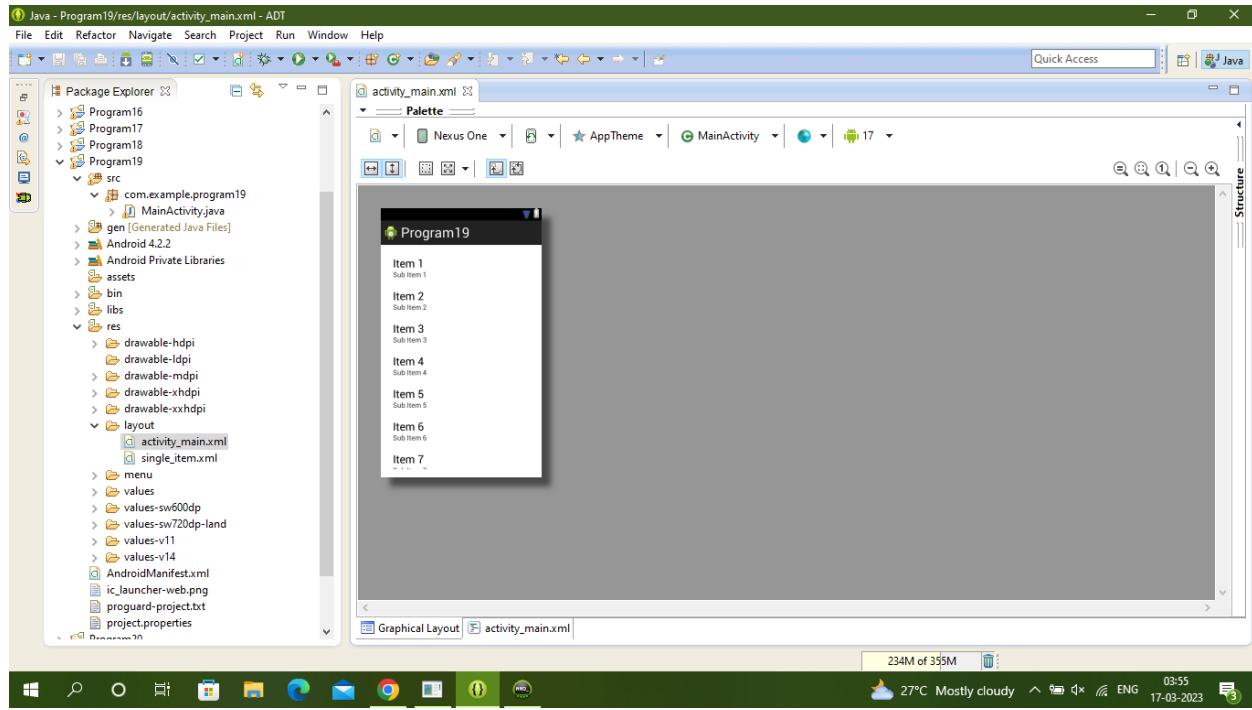
    public void change(View v){
        r.setBackgroundResource(R.drawable.bg2);
    }
}

```



Program 19: Write a program using Array Adapter

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <ListView
        android:id="@+id/listView1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
    </ListView>

</RelativeLayout>
```

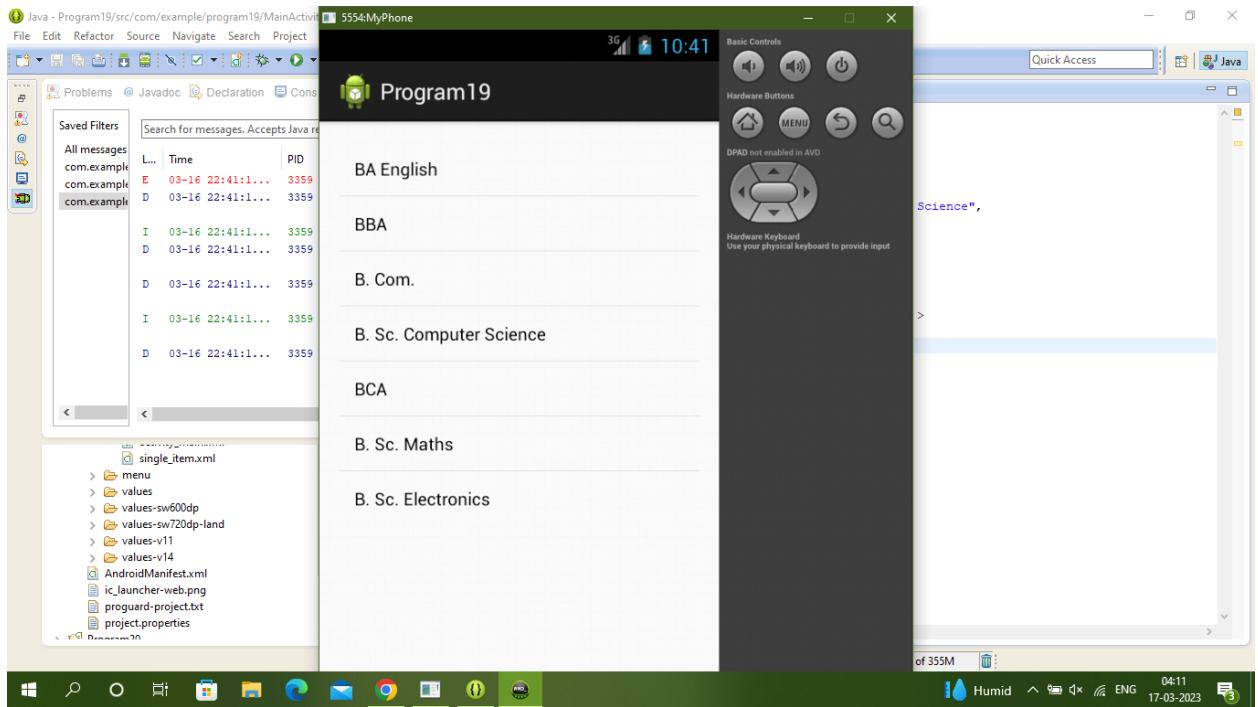
single_item.xml

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

```
<TextView  
    android:id="@+id/textView"  
    android:layout_width="fill_parent"  
    android:layout_height="wrap_content"  
    android:textColor="#000" />  
</LinearLayout>
```

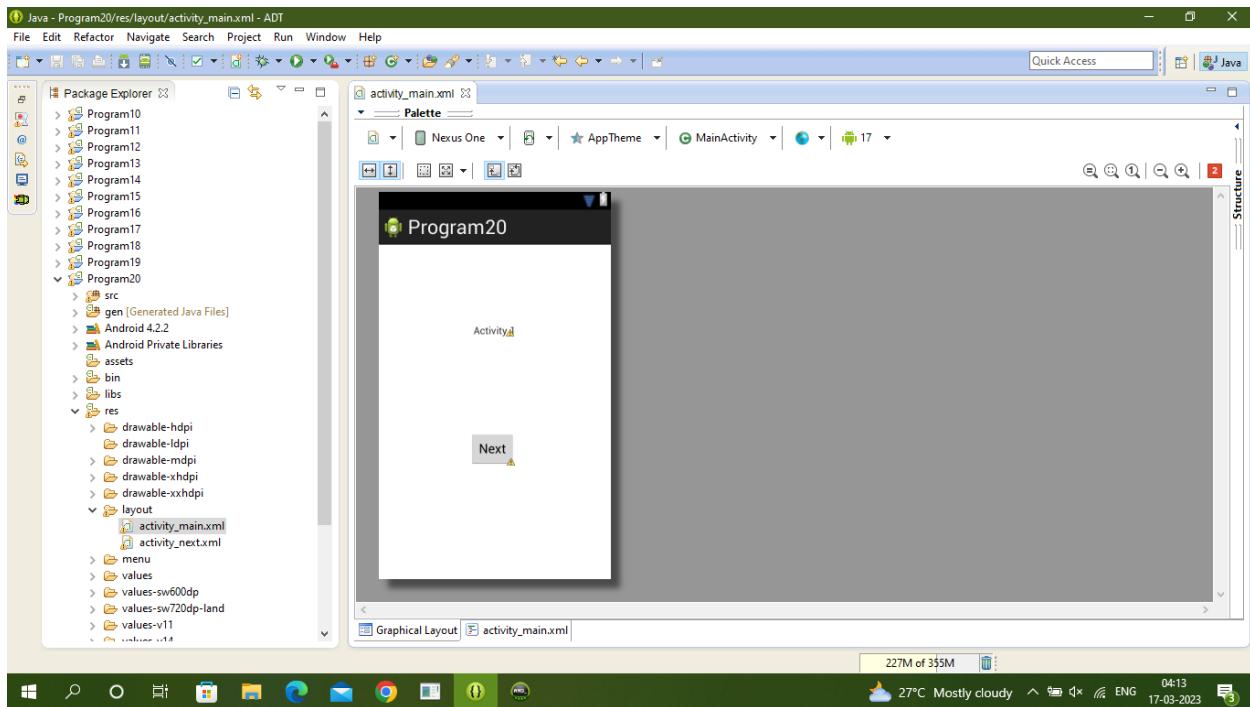
MainActivity.java

```
package com.example.program19;  
  
import android.os.Bundle;  
import android.app.Activity;  
import android.widget.ArrayAdapter;  
import android.widget.ListView;  
  
public class MainActivity extends Activity {  
    ListView l;  
    String courses[] = {"BA English", "BBA", "B. Com.", "B. Sc. Computer Science",  
    "BCA", "B. Sc. Maths", "B. Sc. Electronics"};  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
        l = (ListView) findViewById(R.id.listView1);  
        ArrayAdapter < String > arrayAdapter = new ArrayAdapter < String >  
            (this, R.layout.single_item, R.id.textView, courses);  
        l.setAdapter(arrayAdapter);  
    }  
}
```



Program 20: Write a program to start another activity from one activity using intent

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >
```

```
<TextView
    android:id="@+id/textView1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Activity 1" />
```

```
<Button
    android:id="@+id/button1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="next"
    android:text="Next" />
```

</RelativeLayout>

MainActivity.java

```
package com.example.program20;

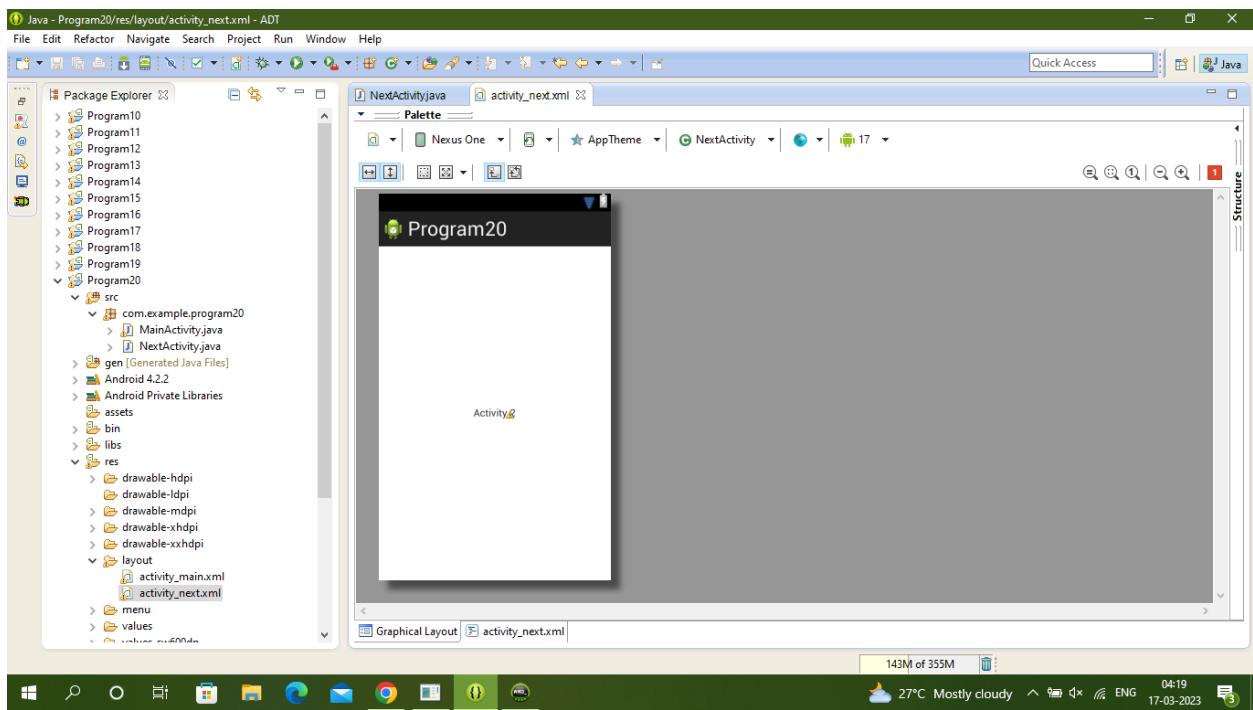
import android.os.Bundle;
import android.app.Activity;
import android.content.Intent;
import android.view.View;

public class MainActivity extends Activity {

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

    public void next(View v)
    {
        Intent i = new Intent(getApplicationContext(), NextActivity.class);
        startActivity(i);
    }
}
```

activity_next.xml



```

<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".NextActivity" >

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Activity 2" />

</RelativeLayout>

```

NextActivity.java

```

package com.example.program20;

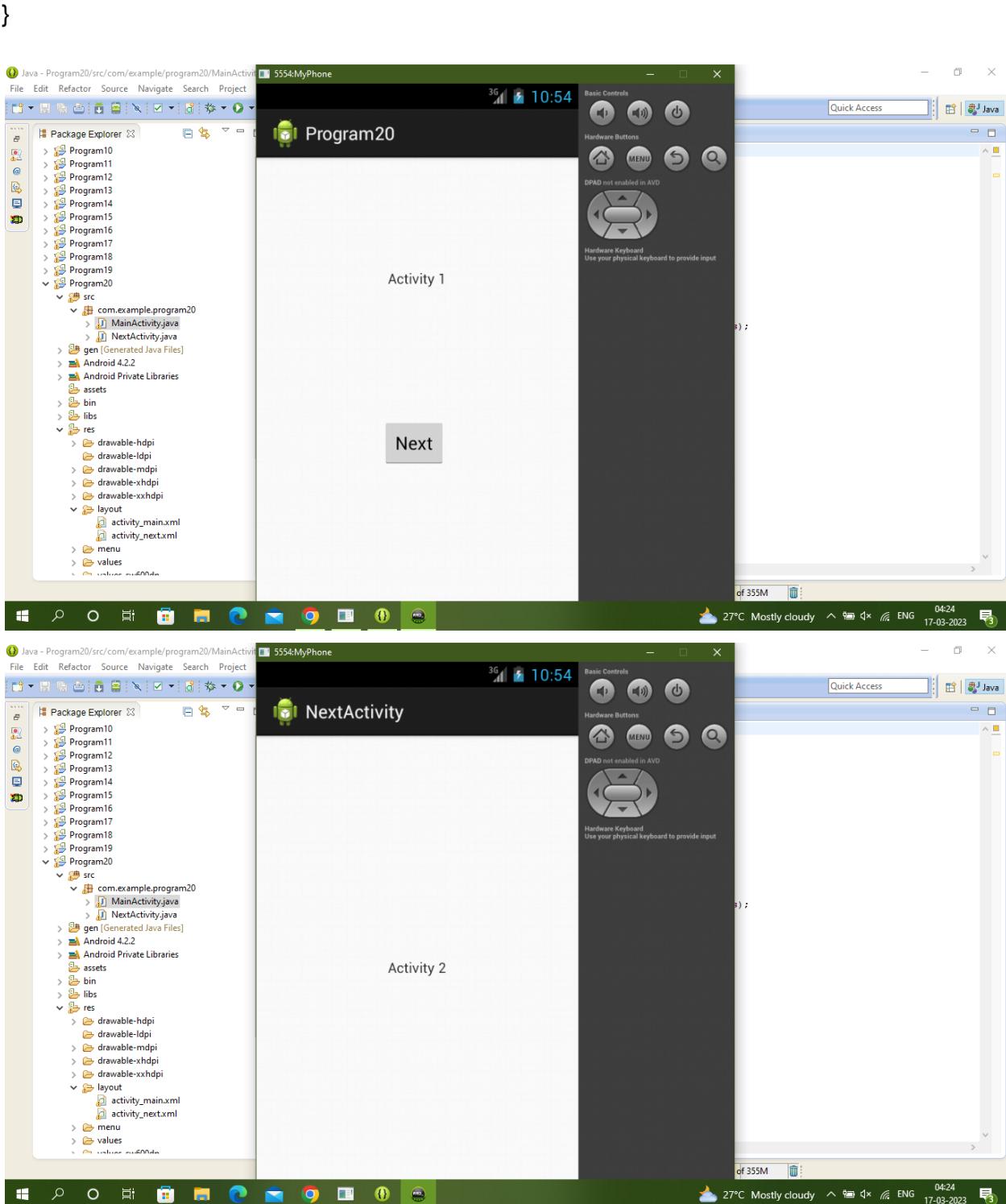
import android.os.Bundle;
import android.app.Activity;

public class NextActivity extends Activity {

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

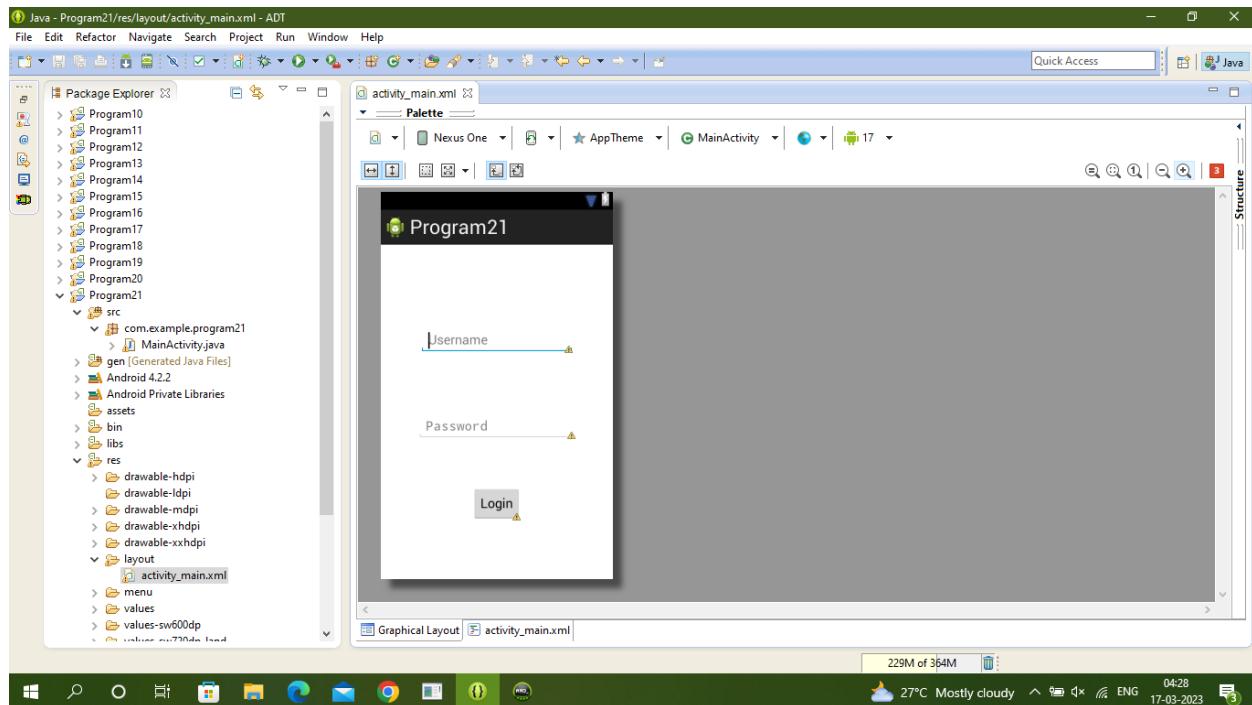
```

```
        setContentView(R.layout.activity_next);  
    }  
  
}
```



Program 21: Write a program for login using username and password

activity_main.xml



```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context=".MainActivity" >

    <EditText
        android:id="@+id/editText1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:hint="Username" >

        <requestFocus />
    </EditText>

    <EditText
        android:id="@+id/editText2"
```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:hint="Password"
    android:inputType="textPassword" />

<Button
    android:id="@+id/button1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="login"
    android:text="Login" />

</RelativeLayout>
```

MainActivity.java

```
package com.example.program21;

import com.example.program21.R.id;

import android.os.Bundle;
import android.app.Activity;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends Activity {
    EditText username,password;
    String uname,pwd;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        username=(EditText)findViewById(R.id.editText1);
        password=(EditText)findViewById(R.id.editText2);
    }

    public void login(View v)
    {
        uname=username.getText().toString();
        pwd=password.getText().toString();
        if(uname.length()<5 || pwd.length()<5)
```

```

        Toast.makeText(this, "Username and/or Password too short",
Toast.LENGTH_LONG).show();
        if(uname.equals("admin") || pwd.equals("Admin@123"))
            Toast.makeText(this, "Login Successful", Toast.LENGTH_LONG).show();
        else
            if(uname.length()<5 || pwd.length()<5)
                Toast.makeText(this, "Recheck the credentials",
Toast.LENGTH_LONG).show();
    }

}

```

