1. Program to check whether a number is prime or not

```
package com.example.myapplication;
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
public class MainActivity extends Activity {
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main);
    final EditText GetNumber = (EditText)findViewById(R.id.getvalue);
    Button button = (Button) findViewById(R.id.result);
    button.setOnClickListener(new OnClickListener() {
      public void onClick(View arg0) {
        int flag=0;
        double num1 = Double.parseDouble(GetNumber.getText().toString());
        for (int i = 2; i < num1; i++)
        {
          if (num1 % i == 0)
             flag = 1;
        if (flag == 0)
           Toast t = Toast.makeText(getApplicationContext(), "Given Number is Prime
Number",Toast.LENGTH SHORT); t.show();
        }else{
           Toast t = Toast.makeText(getApplicationContext(), "Given Number is Not a Prime
Number",Toast.LENGTH_SHORT);
          t.show();
        }
      }
    });
```

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  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:layout_alignParentTop="true"
    android:layout_centerHorizontal="true"
    android:layout marginTop="36dp"
    android:text="Check Prime or Not" />
  <EditText
    android:id="@+id/getvalue"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout below="@+id/textView1"
    android:layout centerHorizontal="true"
    android:layout marginTop="100dp"
    android:ems="10"/>
  <Button
    android:id="@+id/result"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout below="@+id/getvalue"
    android:layout centerHorizontal="true"
    android:layout marginTop="26dp"
    android:text="Check" />
  <TextView
    android:id="@+id/textView2"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:layout alignBottom="@+id/getvalue"
    android:layout_alignLeft="@+id/getvalue"
    android:layout marginBottom="53dp"
    android:layout marginLeft="18dp"
    android:text="Enter a Number" />
</RelativeLayout>
```

2. Write a program to display multiplication table of a given number

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  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:layout alignParentTop="true"
    android:layout centerHorizontal="true"
    android:layout marginTop="76dp"
    android:ems="10" />
  <Button
    android:id="@+id/button1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout alignRight="@+id/textView1"
    android:layout below="@+id/editText1"
    android:layout marginTop="30dp"
    android:text="Click Here" />
  <TextView
    android:id="@+id/textView1"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout below="@+id/button1"
    android:layout centerHorizontal="true"
    android:layout marginTop="29dp"
    android:text="ENTER A NUMBER:" />
</RelativeLayout>
```

```
package com.example.myapplication;
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity extends Activity {
  EditText editText;
  Button button;
  TextView result;
  int ans = 0;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    editText = (EditText) findViewById(R.id.editText1);
    button = (Button) findViewById(R.id.button1);
    result = (TextView) findViewById(R.id.textView1);
    button.setOnClickListener(new OnClickListener() {
      @Override
      public void onClick(View arg0) {
// TODO Auto-generated method stub
         StringBuffer buffer = new StringBuffer();
        String fs = editText.getText().toString();
        int n = Integer.parseInt(fs);
        for (int i = 1; i \le 15; i++) {
           ans = (i * n);
           buffer.append(i + "X" + n + " = " + ans + "\n");
           result.setText(buffer);
        }
      }
    });
  }
}
```

3. Program to Toast a message when a Button is pressed

Activity Main.Xml File

```
<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/Toast"
        android:layout_width="wrap_content" android:layout_height="wrap_content"
        android:layout_alignParentTop="true"android:layout_centerHorizontal="true"
        android:layout_marginTop="147dp" android:text="Click Here" />
        </RelativeLayout>
```

```
package com.example.myapplication;
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.Toast;
public class MainActivity extends Activity {
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main);
    Button button = (Button) findViewById(R.id.Toast);
    button.setOnClickListener(new OnClickListener() {
      @Override
      public void onClick(View arg0) {
// TODO Auto-generated method stub
        Toast t = Toast.makeText(getApplicationContext(),
             "Welcome To Android Proramming", Toast. LENGTH_SHORT); t.show();
      }
    });
  }
  @Override
  public boolean onCreateOptionsMenu(Menu menu) {
```

```
// Inflate the menu; this adds items to the action bar if it is present.
    getMenuInflater().inflate(R.layout.activity_main, menu);
    return true;
}
```

4. Android application for adding two numbers

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  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:layout_alignParentTop="true"
    android:layout centerHorizontal="true"
    android:layout marginTop="97dp"
    android:text="Addition"
    android:textAppearance="?android:attr/textAppearanceMedium" />
  <TextView
    android:id="@+id/textView2"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout alignParentLeft="true"
    android:layout below="@+id/textView1"
    android:layout marginLeft="20dp"
    android:layout_marginTop="43dp"
    android:text="Number One"
    android:textAppearance="?android:attr/textAppearanceMedium" />
  <EditText
    android:id="@+id/txtNumber1"
    android:layout width="wrap content"
    android:layout_height="wrap content"
    android:layout_alignBottom="@+id/textView2"
    android:layout_alignRight="@+id/textView1"
    android:ems="2"
    android:inputType="number" >
```

```
<requestFocus />
  </EditText>
  <TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignLeft="@+id/textView2"
    android:layout_below="@+id/textView2"
    android:layout marginTop="47dp"
    android:text="Number Two"
    android:textAppearance="?android:attr/textAppearanceMedium" />
  <Button
    android:id="@+id/btnAdd"
    android:layout_width="wrap_content"
    android:layout height="wrap content"
    android:layout_alignLeft="@+id/textView3"
    android:layout alignRight="@+id/textView3"
    android:layout below="@+id/textView3"
    android:layout marginTop="46dp"
    android:text="Add" />
 <EditText
    android:id="@+id/txtNumber2"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout above="@+id/btnAdd"
    android:layout alignLeft="@+id/txtNumber1"
    android:ems="2"
    android:inputType="number" />
  <TextView
    android:id="@+id/txtResult"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout alignRight="@+id/txtNumber2"
    android:layout alignTop="@+id/btnAdd"
    android:textAppearance="?android:attr/textAppearanceMedium" />
</RelativeLayout>
```

```
package com.example.myapplication;
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity extends Activity {
  EditText firstNumber;
  EditText secondNumber;
  TextView addResult;
  Button btnAdd;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    firstNumber = (EditText) findViewById(R.id.txtNumber1);
    secondNumber = (EditText) findViewById(R.id.txtNumber2);
    addResult = (TextView) findViewById(R.id.txtResult);
    Button btnAdd = (Button) findViewById(R.id.btnAdd);
    btnAdd.setOnClickListener(new OnClickListener() {
      public void onClick(View v) {
        double num1 = Double.parseDouble(firstNumber.getText().toString());
        double num2 = Double.parseDouble(secondNumber.getText().toString());
        double sum = num1 + num2;
        addResult.setText(Double.toString(sum));
      }
    });
 }
```

5. Develop a simple user interface to display message

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  xmlns:tools="http://schemas.android.com/tools"
  android:layout width="match parent"
  android:layout height="match parent"
  tools:context=".MainActivity" >
  <Button
    android:id="@+id/button"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout centerHorizontal="true"
    android:layout_centerVertical="true"
    android:text="Click Here to Display Message" />
  <TextView
    android:id="@+id/display"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout above="@+id/button"
    android:layout centerHorizontal="true"
    android:layout marginBottom="26dp"
    android:text="Hi" />
</RelativeLayout>
MainActivity.java file
package com.example.myapplication;
import android.os.Bundle;
```

```
import android.app.Activity;
import android.view.Menu;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.view.View.OnClickListener;
import android.widget.Toast;
public class MainActivity extends Activity {
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    final TextView display=(TextView)findViewById(R.id.display);
```

```
Button button = (Button) findViewById(R.id.button);
button.setOnClickListener(new OnClickListener() {
    @Override
    public void onClick(View arg0) {
        display.setText("Welcome to Android Programming");
    }
});
}
```

6. Create two menu items-opening a file-saving a file

Goto res> Menu> activity main.xml

```
<menu xmlns:android="http://schemas.android.com/apk/res/android" >
<item android:id="@+id/open"
android:title="open a file"
android:showAsAction="always"/>
<item android:id="@+id/close"
android:title="Save a file"
android:showAsAction="always" />
</menu>
```

```
package com.example.menu;
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.view.Menultem;
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) {
// Inflate the menu; this adds items to the action bar if it is present.
getMenuInflater().inflate(R.menu.activity_main, menu);
return true;
}
public boolean onOptionsItemSelected(MenuItem item) {
switch (item.getItemId()){
case R.id.open:
Toast.makeText(getApplicationContext(),"File
Opened",Toast.LENGTH LONG).show();
return true;
case R.id.close:
Toast.makeText(getApplicationContext(),"File
Saved",Toast.LENGTH_LONG).show();
return true;
default:
return super.onOptionsItemSelected(item);
}
```

7. Implementation of arrayadapter

Activity_Main.Xml File

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  xmlns:tools="http://schemas.android.com/tools"
  android:layout width="match parent"
  android:layout height="match parent"
  tools:context=".MainActivity" >
  <Spinner
    android:id="@+id/spinner"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentRight="true"
    android:layout alignParentTop="true"
    android:layout_marginTop="132dp" />
  <TextView
    android:id="@+id/textView1"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:layout alignParentLeft="true"
    android:layout alignParentTop="true"
    android:layout marginLeft="62dp"
    android:layout marginTop="54dp"
    android:text="Array Adapter Program" />
</RelativeLayout>
```

```
package com.example.myapplication;
import java.util.ArrayList;
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.widget.ArrayAdapter;
import android.widget.Spinner;
public class MainActivity extends Activity {
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    Spinner spin = (Spinner) findViewById(R.id.spinner);
    final ArrayList<String> items = new ArrayList<String>();
```

8. Write a program to start another activity from your own activity using intent

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
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:layout_alignParentTop="true"
android:layout centerHorizontal="true"
android:layout marginTop="72dp"
android:text="First Activity" />
<Button
android:id="@+id/button1"
android:layout width="wrap content"
android:layout height="wrap content"
```

```
android:layout alignParentLeft="true"
android:layout below="@+id/textView1"
android:layout marginLeft="30dp"
android:layout_marginTop="32dp"
android:text="Click Here For Next Activity" />
</RelativeLayout>
Second.Xml File
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width="match_parent"
Android
PRORAMMING YUVAKSHETRA INSTITUTE OF MANAGEMENT STUDIES B.SC./BCA LAB
PROGRAMS
android:layout height="match parent" >
<TextView
android:id="@+id/textView1"
android:layout_width="wrap_content"
android:layout height="wrap content"
android:layout alignParentLeft="true"
android:layout_alignParentTop="true"
android:layout_marginLeft="116dp"
android:layout marginTop="138dp"
android:text="Second Activity" />
</RelativeLayout>
MainActivity.java file
package com.example.intent;
```

```
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.content.Intent;
import android.view.View;
import android.widget.Button;
public class MainActivity extends Activity {
Button jumpbtn;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
jumpbtn = (Button)findViewById(R.id.button1);
jumpbtn.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
// TODO Auto-generated method stub
Intent i = new Intent(MainActivity.this,Newactivity.class);
startActivity(i);
Android
PRORAMMING YUVAKSHETRA INSTITUTE OF MANAGEMENT STUDIES B.SC./BCA LAB
PROGRAMS
}
});
}
```

SecondActivity.java file

```
package com.example.intent;
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
public class Newactivity extends Activity {
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.second);
}
@Override
public boolean onCreateOptionsMenu(Menu menu) {
// Inflate the menu; this adds items to the action bar if it is present.
getMenuInflater().inflate(R.menu.activity_newactivity, menu);
return true;
}
```