ANDROID PROGRAMS

YUVAKSHETRA INSTITUTE OF MANAGEMENT STUDIES

2020

1. Hello World Program (Write a program to Toast Hello World)

Activity_Main.Xml File

```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/buttonToast"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginLeft="44dp"
android:layout_marginTop="74dp"
android:text="Show Toast" />
        </RelativeLayout>
```

MainActivity.java file

```java
import android.os.Bundle;
import android.widget.Button;
import android.widget.Toast;
import android.app.Activity;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;

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.buttonToast);
```

```
button.setOnClickListener(new OnClickListener() {
public void onClick(View arg0) {
Toast.makeText(getApplicationContext(),
"Hello World", Toast.LENGTH_LONG).show();
}
});
}
```

OUTPUT
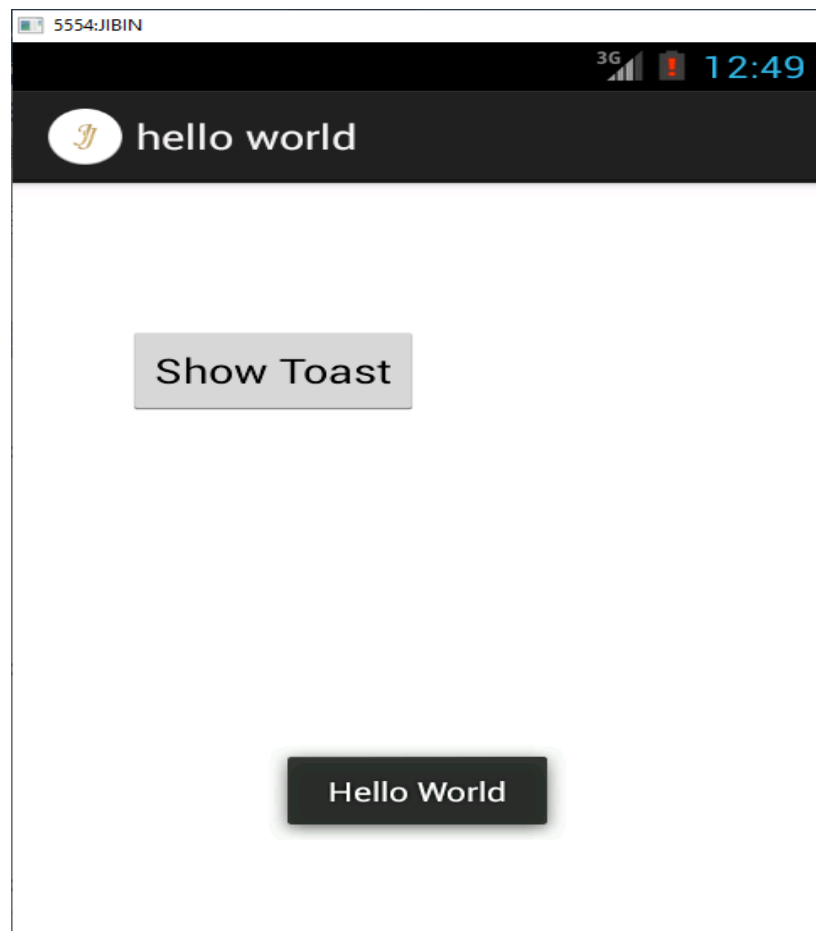
2. Addition of two Numbers (Write a program to add two numbers)

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" >


    <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" >
```

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```xml
<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>
```

MainActivity.java file

```java
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));
        }
        });

   }
```

OUTPUT

3. Alert Box (Write a program to Display an alert box with OK and Cancel)

Activity_Main.Xml File

```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/buttonAlert"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    android:layout_centerVertical="true"
    android:text="Show Alert Box" />


</RelativeLayout>
```

MainActivity.java file

```java
import android.app.Activity;

import android.app.AlertDialog;

import android.content.Context;

import android.content.DialogInterface;

import android.os.Bundle;

import android.view.Menu;

import android.view.View;

import android.view.View.OnClickListener;

import android.widget.Button;


public class MainActivity extends Activity {
        final Context context = this;
        private Button button;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);
```

```java
        setContentView(R.layout.activity_main);

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

        button.setOnClickListener(new OnClickListener() {

    @Override

    public void onClick(View arg0) {

    AlertDialog.Builder alertDialogBuilder = new AlertDialog.Builder(context);

        alertDialogBuilder.setTitle("Your Title");

    alertDialogBuilder.setMessage("Click yes to

exit!").setCancelable(false).setPositiveButton("Yes",new DialogInterface.OnClickListener()

    {

    public void onClick(DialogInterface dialog,int id) {

        MainActivity.this.finish();

    }

    }) .setNegativeButton("No",new DialogInterface.OnClickListener()

    {

    public void onClick(DialogInterface dialog,int id)

{

        dialog.cancel();

        }

        });


        AlertDialog alertDialog = alertDialogBuilder.create();

        alertDialog.show();

        }

        });

        }
```

OUTPUT
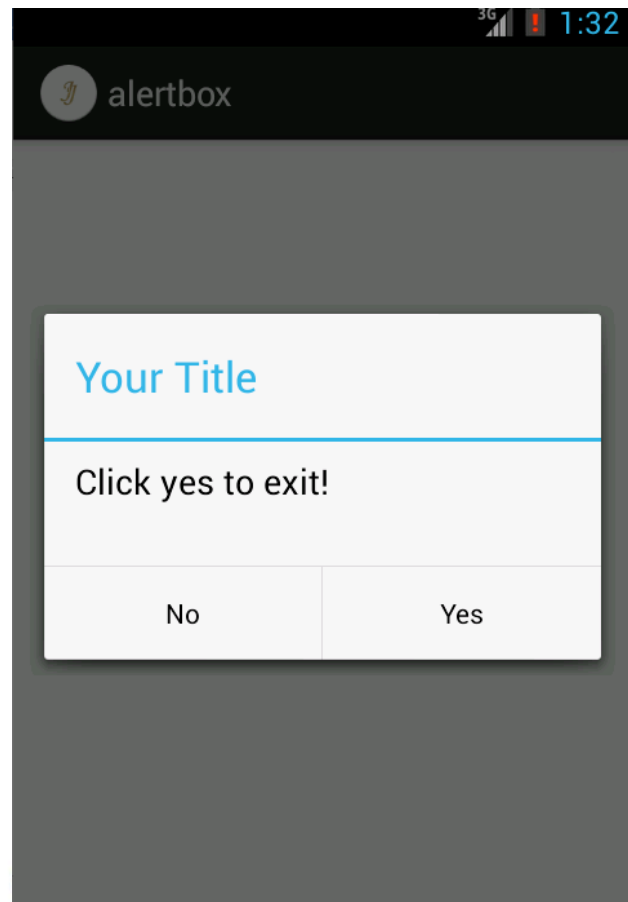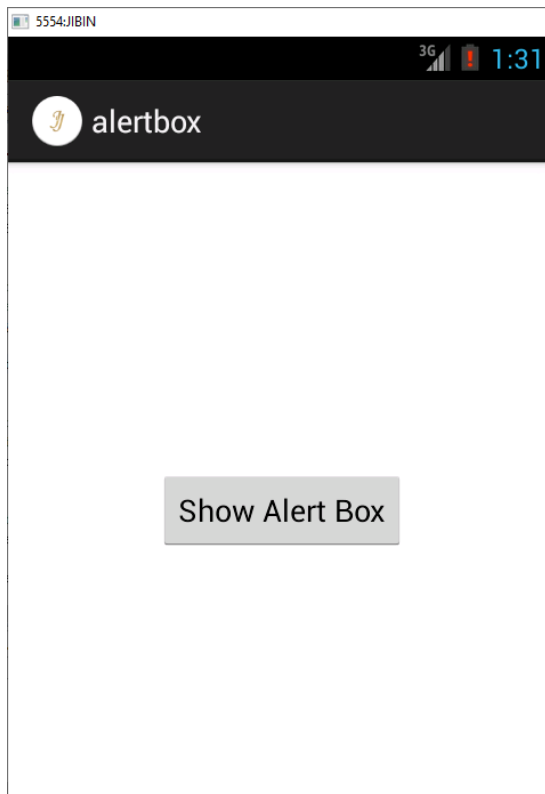
4. Menu Program(Write a Program to create menu with three menu items)

Activity_Main.Xml File

```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="fill_parent"
        android:layout_height="wrap_content"
        android:layout_alignParentLeft="true"
        android:layout_alignParentTop="true"
        android:layout_marginTop="70dp"
        android:text="Category:" />

    <Spinner
        android:id="@+id/spinner"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_alignParentLeft="true"
        android:layout_below="@+id/textView1"
        android:layout_marginTop="38dp"
        />
</RelativeLayout>
```

MainActivity.java file

```java
import java.util.ArrayList;
import java.util.List;
import android.app.Activity;
import android.os.Bundle;
import android.view.Menu;
import android.view.View;
import android.widget.AdapterView;
```

```java
import android.widget.ArrayAdapter;

import android.widget.Spinner;

import android.widget.Toast;

import android.widget.AdapterView.OnItemSelectedListener;


public class MainActivity extends Activity implements
OnItemSelectedListener{
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Spinner spinner = (Spinner) findViewById(R.id.spinner);
    // Spinner click listener
    spinner.setOnItemSelectedListener(this);
    // Spinner Drop down elements
    List<String> categories = new ArrayList<String>();
    categories.add("Automobile");
    categories.add("Business Services");
    categories.add("Computers");
    categories.add("Education");
    categories.add("Personal");
    categories.add("Travel");
    ArrayAdapter<String> dataAdapter = new ArrayAdapter<String>(this,
    android.R.layout.simple_spinner_item, categories);
dataAdapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
    spinner.setAdapter(dataAdapter);
    }
    public void onItemSelected(AdapterView<?> parent, View view, int position, long id)
{
String item = parent.getItemAtPosition(position).toString();
Toast.makeText(parent.getContext(), "Selected: " + item,
Toast.LENGTH_LONG).show();
}
public void onNothingSelected(AdapterView<?> arg0) {
}
```
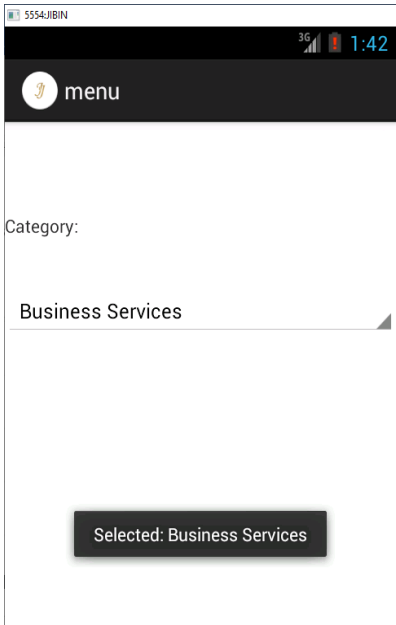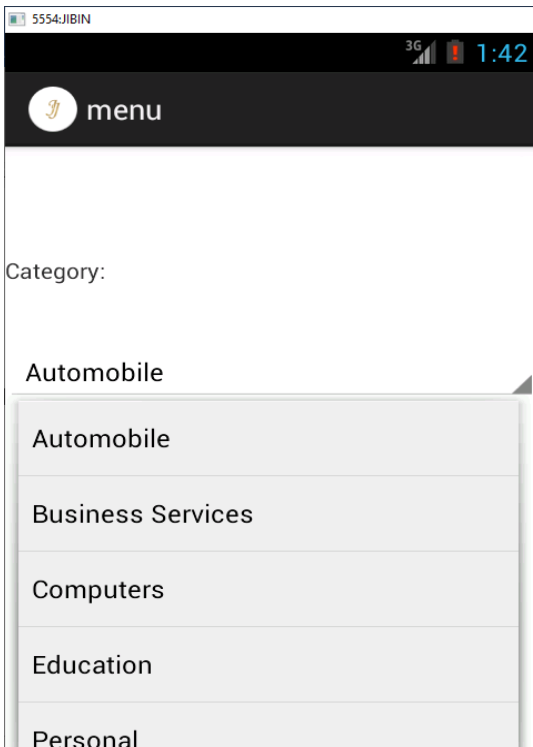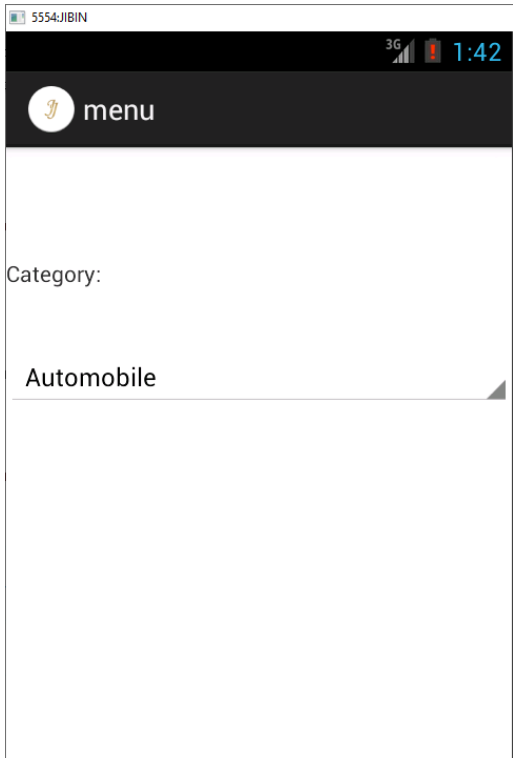
OUTPUT

5. Radio Button(Write a Program to Select gender using radio button)

Activity_Main.Xml File

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width="fill_parent"
android:layout_height="fill_parent"
android:orientation="vertical" >
<RadioGroup
android:id="@+id/radioSex"
android:layout_width="wrap_content"
android:layout_height="wrap_content" >
<RadioButton
android:id="@+id/radioMale"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="male"
android:checked="true" />
<RadioButton
android:id="@+id/radioFemale"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="female" />
</RadioGroup>

<Button
    android:id="@+id/btnDisplay"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="display" />

</LinearLayout>
```

MainActivity.java file

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

```java
import android.view.Menu;

import android.view.View;

import android.view.View.OnClickListener;

import android.widget.Button;

import android.widget.RadioButton;

import android.widget.RadioGroup;

import android.widget.Toast;


public class MainActivity extends Activity {

        private RadioGroup radioSexGroup;

        private RadioButton radioSexButton;

        private Button btnDisplay;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        addListenerOnButton();

    }

    public void addListenerOnButton() {

    radioSexGroup = (RadioGroup) findViewById(R.id.radioSex);

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

    btnDisplay.setOnClickListener(new OnClickListener() {

    @Override

    public void onClick(View v) {

        int selectedId = radioSexGroup.getCheckedRadioButtonId();

    radioSexButton = (RadioButton) findViewById(selectedId);

    Toast.makeText(MainActivity.this,

    radioSexButton.getText(), Toast.LENGTH_SHORT).show();

    }

    });

}
```

<u>OUTPUT</u>
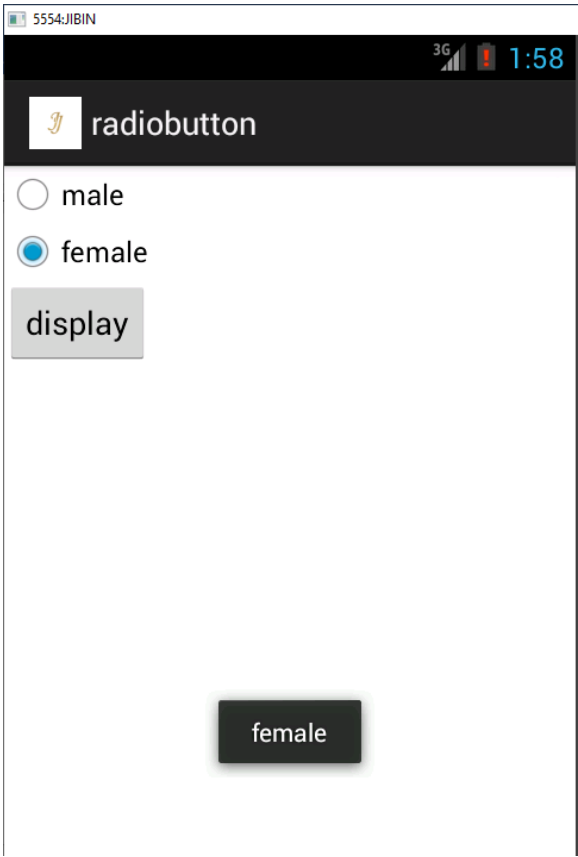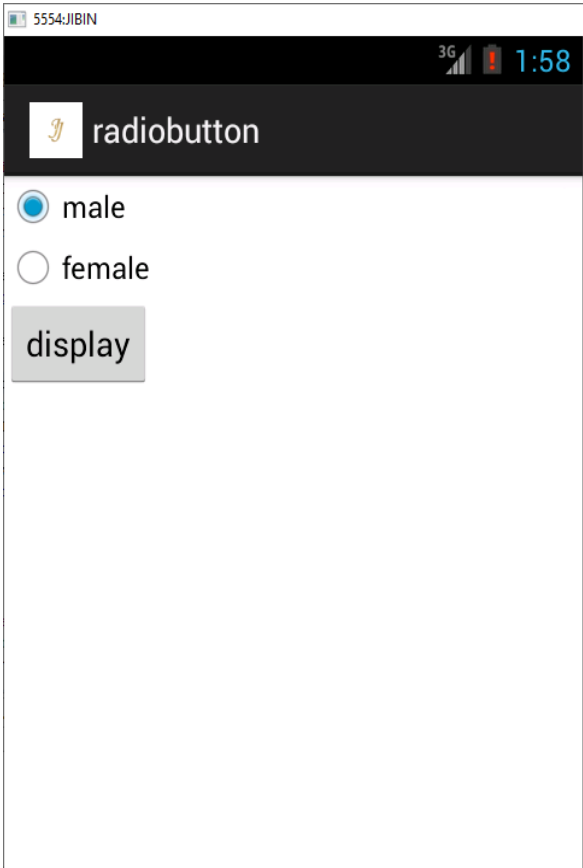
6. Spinner(Write a Program To Spin the four items)

Activity_Main.Xml File

```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/spinner"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:layout_alignParentLeft="true"
    android:layout_below="@+id/selection"
    android:layout_marginTop="71dp" />


<TextView
    android:id="@+id/selection"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:layout_alignParentLeft="true"
    android:layout_alignParentTop="true"
    android:layout_marginTop="41dp"
    android:background="#ff0033cc"
    android:textColor="#ff0000"
    android:textSize="25dp"
    android:textStyle="bold" />


    </RelativeLayout>
```

MainActivity.java file

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

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```java
import android.widget.AdapterView;

import android.widget.ArrayAdapter;

import android.widget.Spinner;

import android.widget.TextView;

public class MainActivity extends Activity implements

AdapterView.OnItemSelectedListener{

        TextView selection;

        String[] items = { "YUVAKSHETRA", "COMPUTER", "MOUSE", "KEYBORD",

"MONITOR", "HARD DISK", "LAPTOP", "PRINTER", "SCANNER", "SPEAKER" };

   @Override

  protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_main);

    selection = (TextView) findViewById(R.id.selection);

    Spinner spin = (Spinner) findViewById(R.id.spinner);

    spin.setOnItemSelectedListener(this);

    ArrayAdapter aa = new ArrayAdapter(this,android.R.layout.simple_spinner_item,items);

    aa.setDropDownViewResource(

    android.R.layout.simple_spinner_dropdown_item);

    spin.setAdapter(aa);

    }

    public void onItemSelected(AdapterView<?> parent, View v, int position, long id) {

    selection.setText(items[position]);

    }

    public void onNothingSelected(AdapterView<?> parent) {

    selection.setText("");

    }
```

OUTPUT
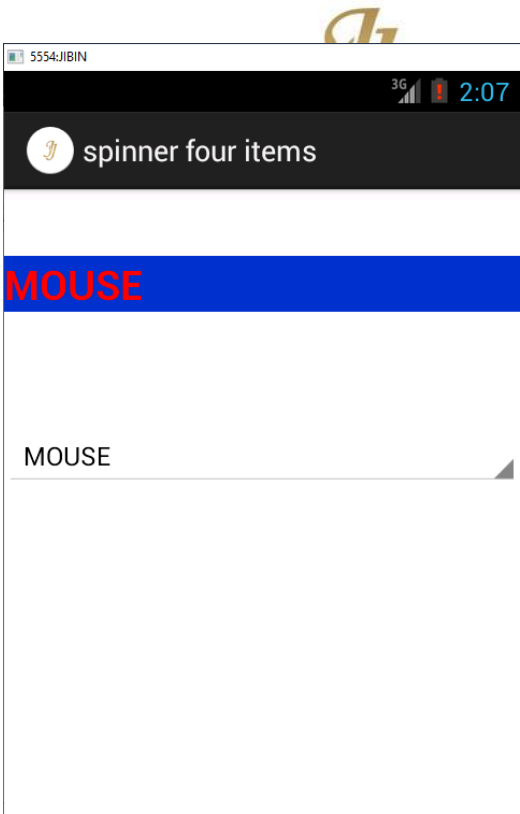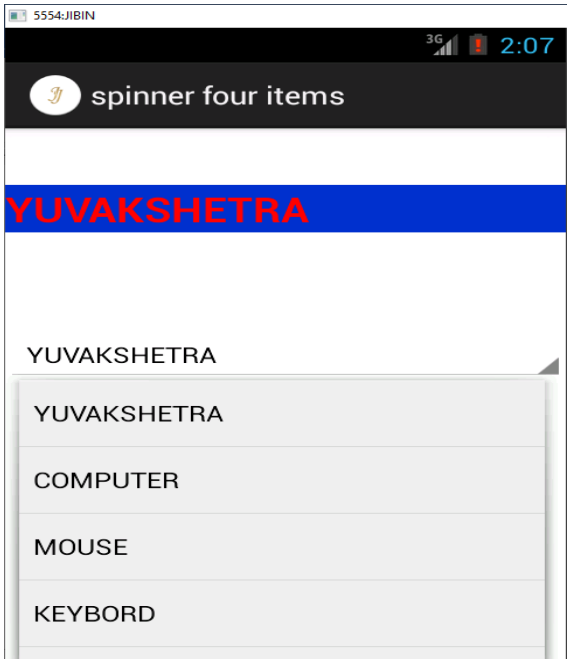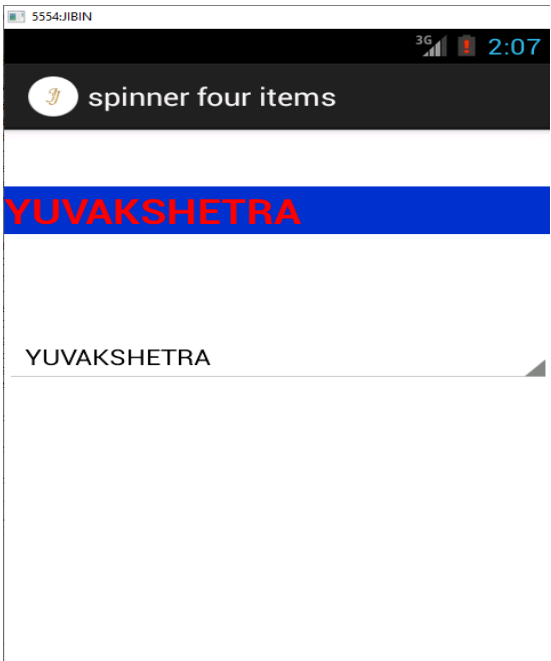
7. Check box(Write a Program to check the items listed)

Activity_Main.Xml File

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

android:layout_width="fill_parent"

android:layout_height="fill_parent"

android:orientation="vertical" >

<CheckBox

android:id="@+id/android"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:text="android" />

<CheckBox

android:id="@+id/java"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:text="java"

android:checked="true" />

<CheckBox

android:id="@+id/opencv"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:text="opencv" />

<CheckBox

android:id="@+id/symbian"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:text="symbian" />

<Button

android:id="@+id/Clickhere"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:text="Clickhere" />

    </LinearLayout>
```

MainActivity.java file

```java
import android.app.Activity;

import android.os.Bundle;

import android.view.View;

import android.view.View.OnClickListener;

import android.widget.Button;

import android.widget.CheckBox;

import android.widget.Toast;

import android.view.Menu;

public class MainActivity extends Activity {

        private CheckBox android, java, opencv, symbian;

        private Button Clickhere;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

      super.onCreate(savedInstanceState);

      setContentView(R.layout.activity_main);

      android = (CheckBox) findViewById(R.id.android);

      java = (CheckBox) findViewById(R.id.java);

      opencv = (CheckBox) findViewById(R.id.opencv);

      symbian = (CheckBox) findViewById(R.id.symbian);

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

      Clickhere.setOnClickListener(new OnClickListener() {

      @Override

      public void onClick(View v) {

        StringBuffer OUTPUT = new StringBuffer();

        OUTPUT.append("Android : ").append(android.isChecked());

        OUTPUT.append("\nJava : ").append(java.isChecked());

        OUTPUT.append("\nOpenCV :").append(opencv.isChecked());

        OUTPUT.append("\nSymbian :").append(symbian.isChecked());

        Toast.makeText(MainActivity.this, OUTPUT.toString(),

        Toast.LENGTH_LONG).show();

      }       });

          }
```

OUTPUT
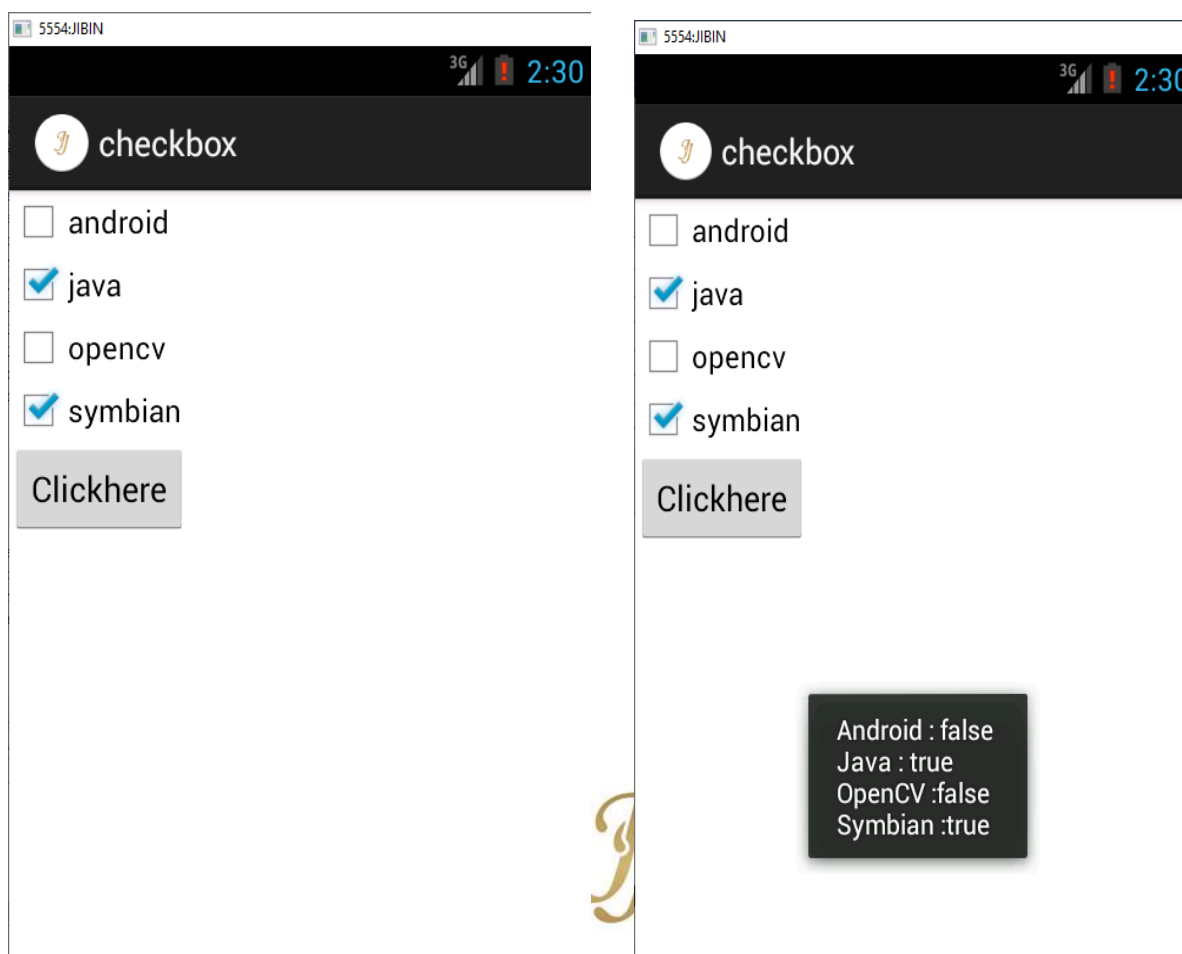
8. Image View (Write a Program to Display images from local drive of the computer)

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" >
<ImageView
    android:id="@+id/imageView1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/imageView2"
    android:layout_marginTop="42dp"
    android:layout_toRightOf="@+id/imageView2"
    android:src="@drawable/icon" />
<Button
    android:id="@+id/btnChangeImage"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentLeft="true"
    android:layout_below="@+id/imageView1"
    android:layout_marginLeft="50dp"
    android:layout_marginTop="42dp"
    android:text="Change Image" />
</RelativeLayout>
```

MainActivity.java file

```java
import android.app.Activity;
import android.os.Bundle;
import android.widget.Button;
import android.widget.ImageView;
import android.view.View;
import android.view.View.OnClickListener;
import android.view.Menu;
public class MainActivity extends Activity {
    Button button;
```

```
    ImageView image;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    addListenerOnButton();
}
public void addListenerOnButton() {
    final ImageView image = (ImageView) findViewById(R.id.imageView1);
    Button button = (Button) findViewById(R.id.btnChangeImage);
    button.setOnClickListener(new OnClickListener() {
    @Override
    public void onClick(View arg0) {
        image.setImageResource(R.drawable.department_of_computer_science2);
    //image.setImageResource(R.drawable.icon);
    }
    });
}
```

OUTPUT
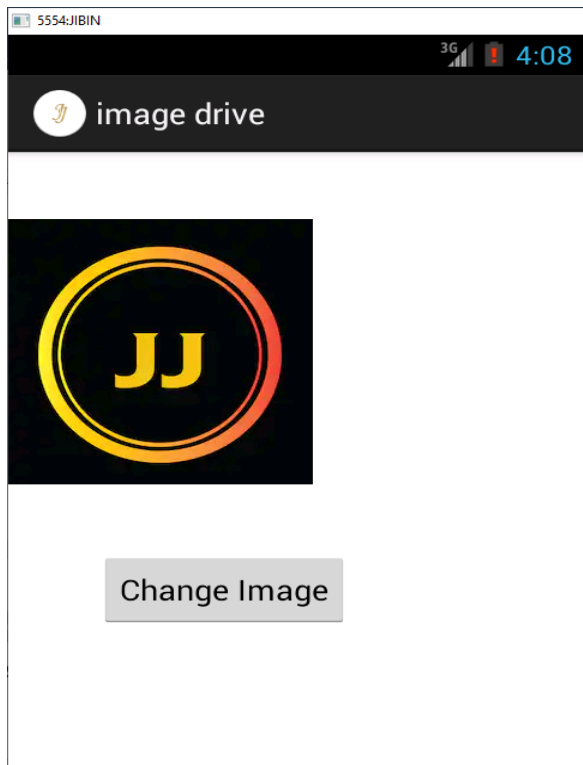
9. List View(Write a Program to Display the items in a list)

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" >


  <ListView
     android:id="@+id/lst_view"
     android:layout_width="match_parent"
     android:layout_height="match_parent"
     android:layout_alignParentLeft="true"
     android:layout_alignParentStart="true"
     android:layout_alignParentTop="true" >
  </ListView>
  </RelativeLayout>
```

MainActivity.java file

```java
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.widget.ArrayAdapter;
import android.widget.ListView;
public class MainActivity extends Activity {
        ListView listView;
        String [] weeks={"sunday","monday","tuesday","wednesday","thursday","friday"};
    @Override
    protected void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);
       setContentView(R.layout.activity_main);
      listView= (ListView) findViewById(R.id.lst_view);
      ArrayAdapter<String> adapter=new
      ArrayAdapter<String>(getBaseContext(),android.R.layout.simple_list_item_1,weeks);
      listView.setAdapter(adapter);
           }
```

OUTPUT
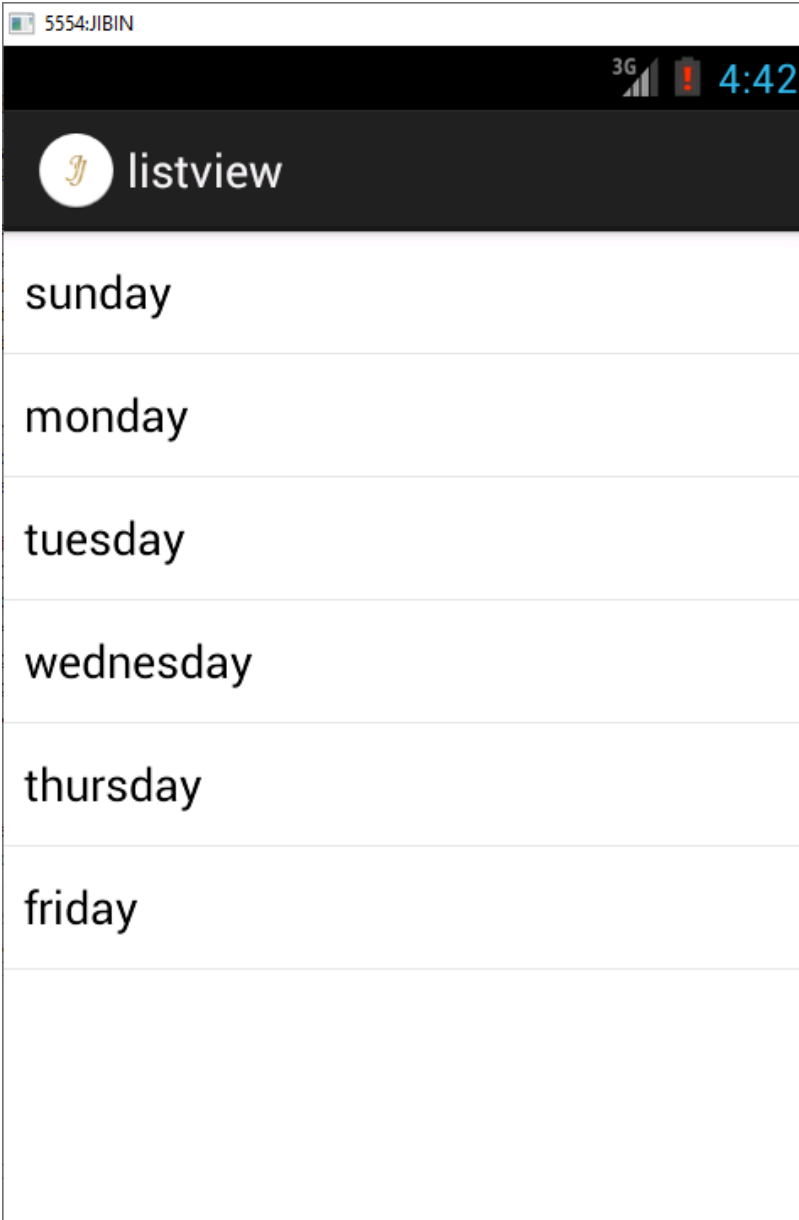
10.Fetch data from an EditText and display it in a TextView

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" >

    <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="62dp"
        android:ems="10" />

    <EditText
        android:id="@+id/editText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/editText1"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="18dp"
        android:ems="10" />

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_centerHorizontal="true"
        android:layout_marginBottom="107dp" />
```

```xml
<Button
    android:id="@+id/button1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    android:layout_centerVertical="true"
    android:text="Click Here" />

</RelativeLayout>
```

MainActivity.java file

```java
package com.example.fetchdata;

import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.text.method.ScrollingMovementMethod;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends Activity {
    Button butn;
    EditText text1;
    EditText text2;
    TextView txtview;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        butn=(Button)findViewById(R.id.button1);
```

```
txtview=(TextView)findViewById(R.id.textView1);

txtview.setMovementMethod(new ScrollingMovementMethod());

butn.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View arg0) {

// TODO Auto-generated method stub

text1= (EditText)findViewById(R.id.editText1);

text2= (EditText)findViewById(R.id.editText2);

txtview.setText(text1.getText().toString()+"\n"+text2.getText().toString());

}

});

}
```

OUTPUT
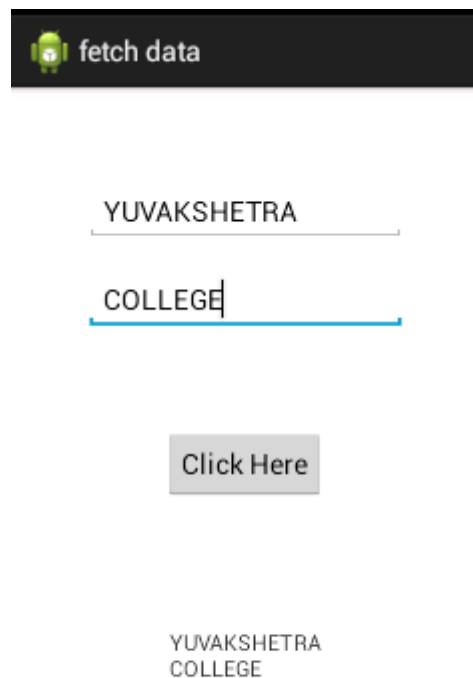
11. Write a program to display multiplication table of a given number

Activity_Main.Xml File

```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: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="@string/hello_world" />

    </RelativeLayout>
```

MainActivity.java file

package com.example.multiplicationyims;

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);

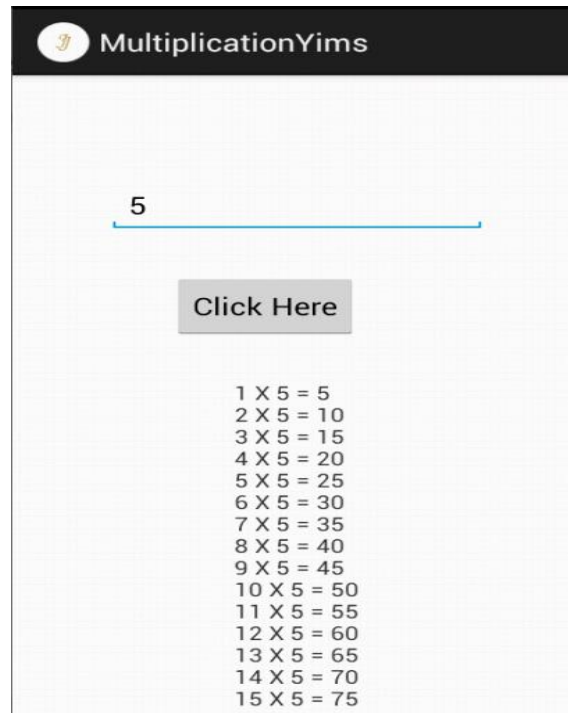   **for** (**int** i = 1; i <= 15; i++) {

        ans = (i * n);

        buffer.append(i + " X " + n + " = " + ans + "\n");

31

```
            result.setText(buffer);
            }
            }
            });


      }
```

OUTPUT

12. Write a program to Get IP Address of the device

AndroidManifest.xml

Add code:

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

Activity_Main.Xml File

```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/getIPAddress"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true"
        android:text="Please wait.. IP Loading" />

</RelativeLayout>
```

MainActivity.java file

```java
package com.example.getip;
import java.io.BufferedReader;
import java.io.InputStreamReader;
import java.net.HttpURLConnection;
import java.net.URL;
import java.util.ArrayList;
```

```java
import android.os.Bundle;

import android.app.Activity;

import android.util.Log;

import android.view.Menu;

import android.widget.TextView;


public class MainActivity extends Activity {

        TextView textView;

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

textView = (TextView)findViewById(R.id.getIPAddress);

        getPublicIP();


    }


    private void getPublicIP() {

        new Thread(new Runnable(){

        ArrayList<String> urls=new ArrayList<String>();


        public void run(){

                    try {

                            URL url = new URL("https://api.ipify.org/");

                            HttpURLConnection conn=(HttpURLConnection) url.openConnection();

            conn.setConnectTimeout(60000);

            BufferedReader in = new BufferedReader(new

InputStreamReader(conn.getInputStream()));

            String str;

            while ((str = in.readLine()) != null) {

               urls.add(str);

            }

            in.close();

        } catch (Exception e) {

            Log.d("MyTag",e.toString());

        }
```

```java
            MainActivity.this.runOnUiThread(new Runnable(){
             public void run(){
                try {
                        textView.setText("Your Device IP Address: " + urls.get(0));
                }
                catch (Exception e){
                        textView.setText("Please check Network Connectivity");
                }
             }
          });


       }
    }).start();


       }
```

OUTPUT

GETIP

GETIP

Please wait.. IP Loading

Your Device IP Address: 137.97.121.211
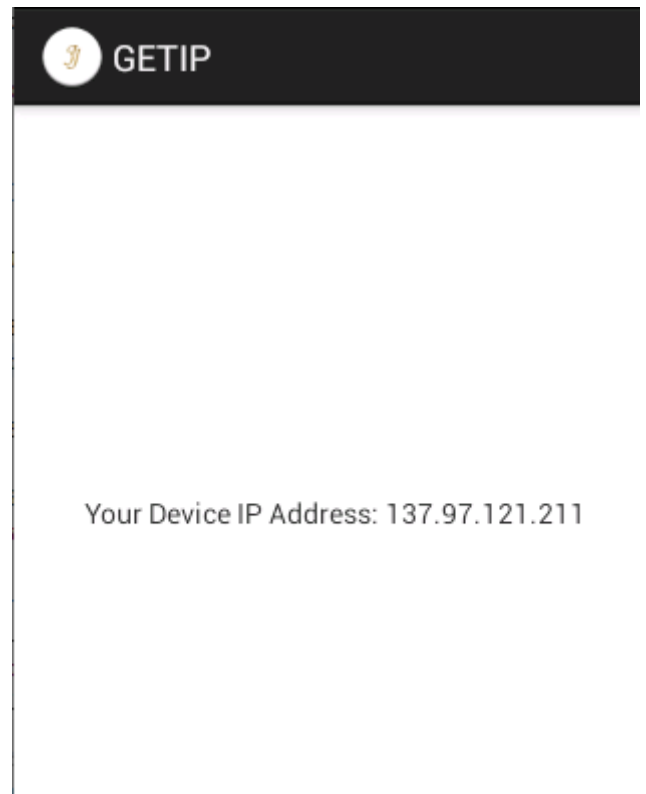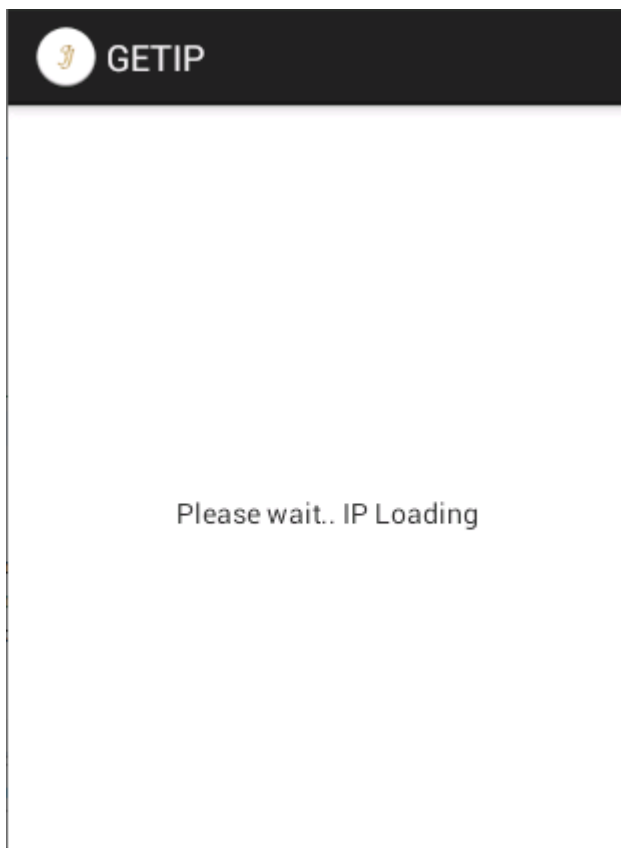
13.Write a program to Change the Background colour of the Activity

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"
    android:id="@+id/rl"
    tools:context=".MainActivity" >

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="78dp"
        android:text="Change Background" />

</RelativeLayout>
```

MainActivity.java file

```
package com.example.background;
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.graphics.Color;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.RelativeLayout;
public class MainActivity extends Activity {
    Button butn;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
```
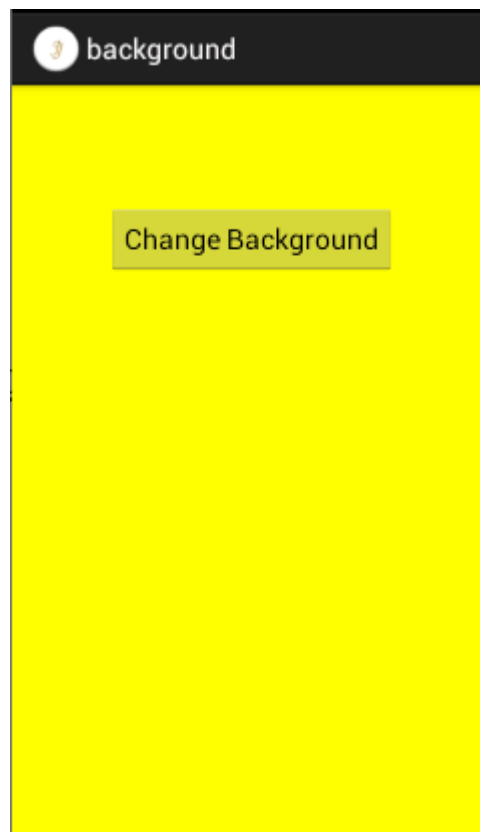
```
super.onCreate(savedInstanceState);

setContentView(R.layout.activity_main);


final RelativeLayout r1 = (RelativeLayout)findViewById(R.id.rl);

butn= (Button)findViewById(R.id.button1);

butn.setOnClickListener(new OnClickListener() {

@Override

public void onClick(View arg0) {

r1.setBackgroundColor(Color.YELLOW);

}

});


}
```

OUTPUT

14. Write a program to Change the Background image

Activity_Main.Xml File

```xml
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/rl"
    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:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="146dp"
        android:text="Image 1" />

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignRight="@+id/button1"
        android:layout_below="@+id/button1"
        android:layout_marginTop="25dp"
        android:text="Image 2" />

    <ImageView
        android:id="@+id/imageView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/button2"
        android:src="@drawable/yims" />

</RelativeLayout>
```

MainActivity.java file

```java
package com.example.changebackgroundimage;
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;


public class MainActivity extends Activity implements View.OnClickListener {
        ImageView v1;
        Button btn1;
        Button btn2;
        @Override
        protected void onCreate(Bundle savedInstanceState) {
                super.onCreate(savedInstanceState);
                setContentView(R.layout.activity_main);


                btn1=(Button)findViewById(R.id.button1);
                btn2=(Button)findViewById(R.id.button2);
                v1=(ImageView)findViewById(R.id.imageView1);
                btn1.setOnClickListener(this);
                btn2.setOnClickListener(this);
                        }
        @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;
        }
        @Override
        public void onClick(View v) {
                // TODO Auto-generated method stub
                switch(v.getId()){
```

```
                    case R.id.button1:
                    v1.setImageResource(R.drawable.jj);
                    break;
                    case R.id.button2:
                    v1.setImageResource(R.drawable.yims);
                    break;
                    }
            }
        }
```
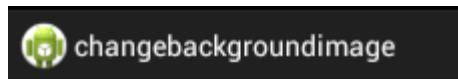
OUTPUT

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

Activity_Main.Xml File

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

```xml
<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

```java
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);
            }
        });
    }
```

SecondActivity.java file

```java
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;
        }
}
```

OUTPUT