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

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="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"
```

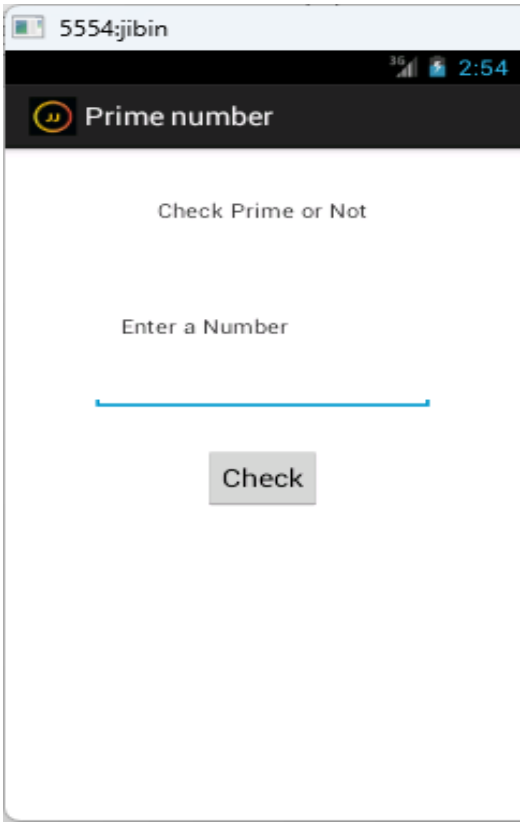
```
        android:layout_height="wrap_content"
        android:layout_alignBottom="@+id/getvalue"
        android:layout_alignLeft="@+id/getvalue"
        android:layout_marginBottom="53dp"
        android:layout_marginLeft="18dp"
        android:text="Enter a Number" />
    </RelativeLayout>
```

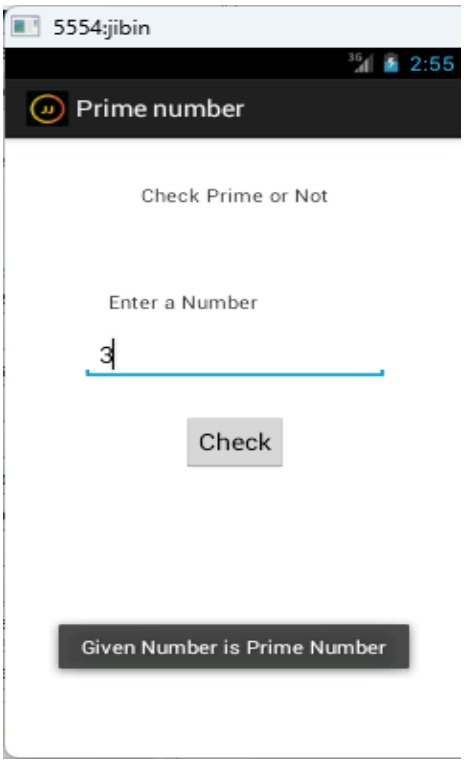
MainActivity.java file

```
package com.example.primenumber;
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();
                        }
                }
        });
    }
}
```

OUTPUT





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

Activity_Main.Xml File

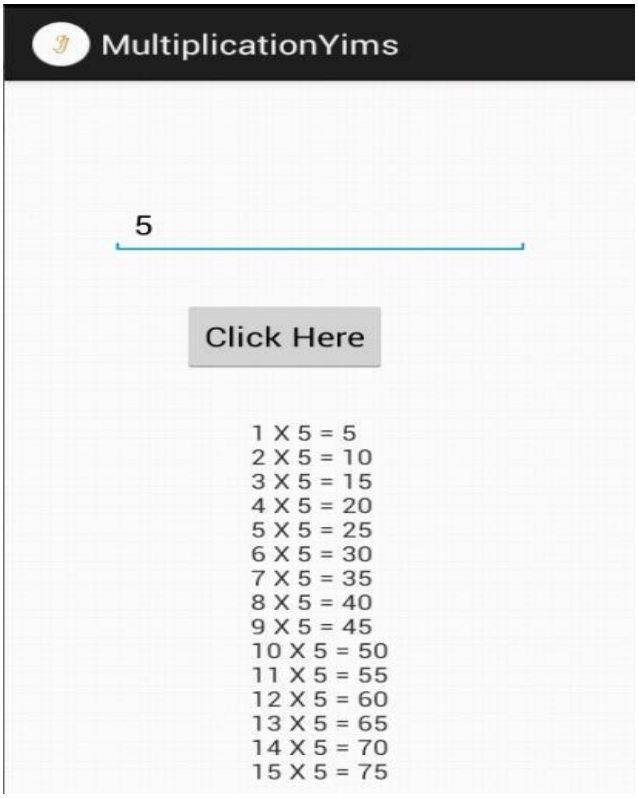
```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   tools:context=".MainActivity" >
   <EditText
      android:id="@+id/editText1"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_alignParentTop="true"
      android:layout_centerHorizontal="true"
      android:layout_marginTop="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");
		result.setText(buffer);
		}
```

```
        }
        });
        }
```

OUTPUT


MultiplicationYims
5
Click Here
1 X 5 = 5
2 X 5 = 10
3 X 5 = 15
4 X 5 = 20
5 X 5 = 25
6 X 5 = 30
7 X 5 = 35
8 X 5 = 40
9 X 5 = 45
10 X 5 = 50
11 X 5 = 55
12 X 5 = 60
13 X 5 = 65
14 X 5 = 70
15 X 5 = 75

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>
```

MainActivity.java file

```
package com.example.toastmessage;
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.menu.activity_main, menu);
   return true;
}
}
```

OUTPUT

4. Android application for adding 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" >
<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"
```

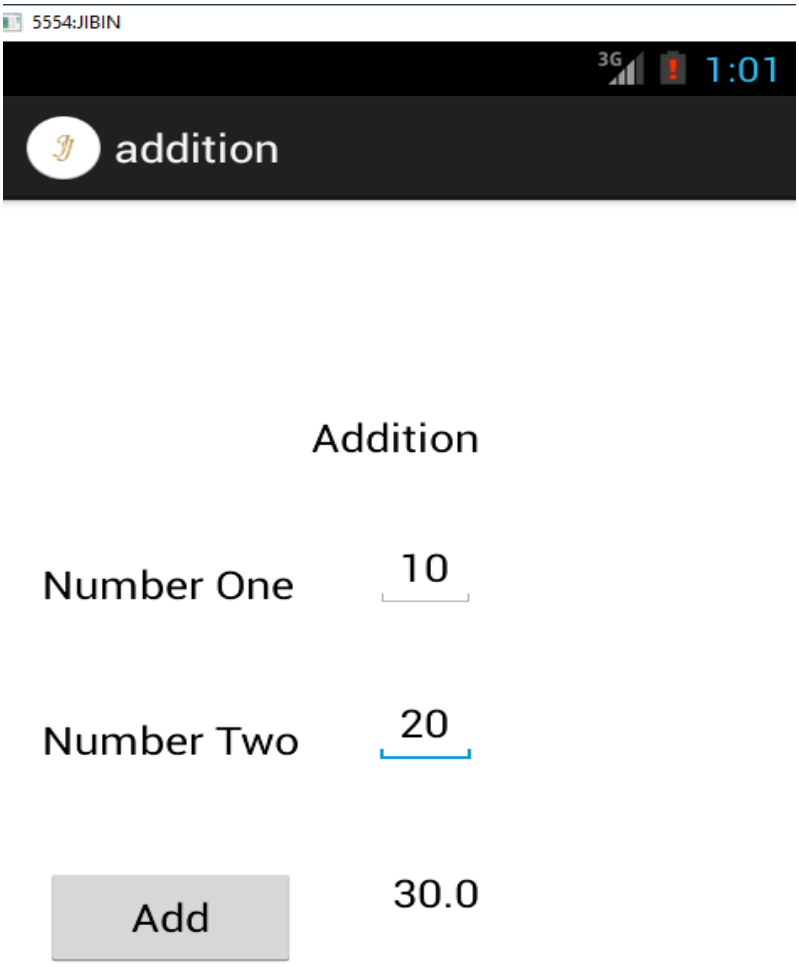
```
android:layout_height="wrap_content"
android:layout_alignRight="@+id/txtNumber2"
android:layout_alignTop="@+id/btnAdd"
android:textAppearance="?android:attr/textAppearanceMedium" />
</RelativeLayout>
```

MainActivity.java file

```
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


5554:JIBIN
3G
1:01
addition
Addition
Number One
10
Number Two
20
Add
30.0

5. Develop a simple user interface to display message

Activity_Main.Xml File

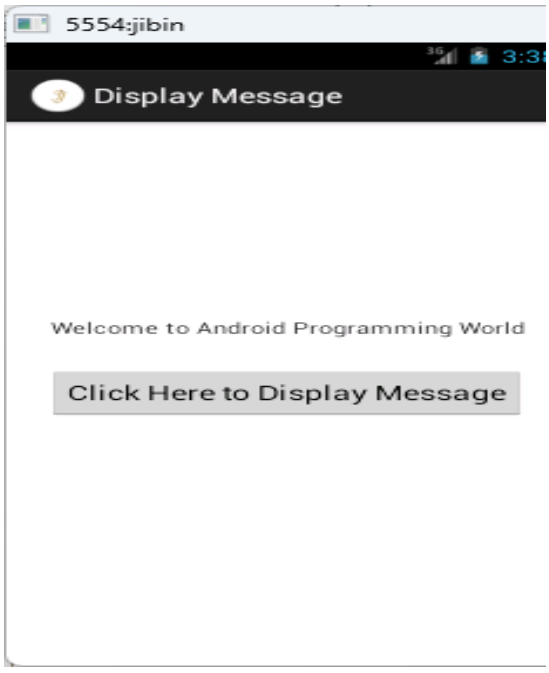
```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   tools:context=".MainActivity" >

   <Button
      android:id="@+id/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.displaymessage;
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 World");
}
         });
       }
     }
```

OUTPUT



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

Goto res> Menu> activity_main.xml

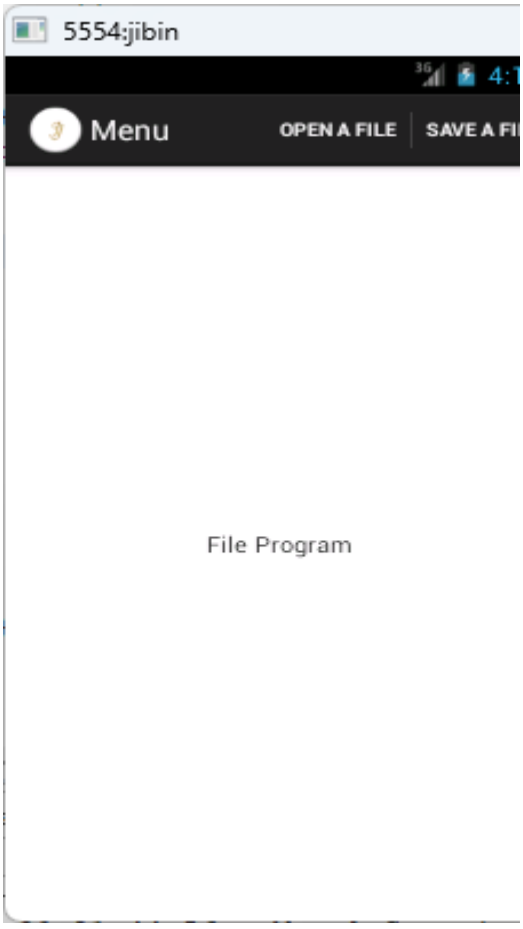
```
<menu xmlns:android="http://schemas.android.com/apk/res/android" >
  <item android:id="@+id/open"
        android:title="open a file"
        android:showAsAction="always"/>
    <item android:id="@+id/close"
        android:title="Save a file"
      android:showAsAction="always" />
</menu>
```

MainActivity.java file

```
package com.example.menu;
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) {
      // 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);
    }
}
}
```

OUTPUT



6. Inserting values into Spinner control using Edit Text and Button

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/gettext"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_alignParentLeft="true"
      android:layout_below="@+id/textView1"
      android:layout_marginLeft="32dp"
      android:layout_marginTop="30dp"
      android:ems="10" >
      <requestFocus />
   </EditText>
   <TextView
      android:id="@+id/textView1"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_alignLeft="@+id/gettext"
      android:layout_alignParentTop="true"
      android:layout_marginTop="40dp"
      android:text="Enter String value" />
   <Button
      android:id="@+id/add"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_alignRight="@+id/gettext"
      android:layout_below="@+id/gettext"
      android:layout_marginRight="68dp"
      android:layout_marginTop="23dp"
```

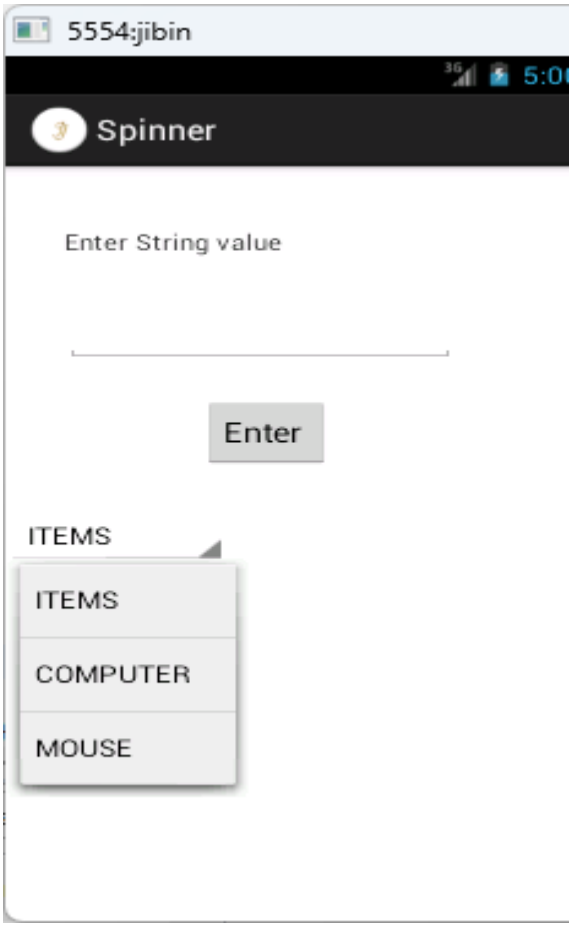
```
        android:text="Enter " />
    <Spinner
        android:id="@+id/spinner"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignLeft="@+id/gettext"
        android:layout_below="@+id/add"
        android:layout_marginLeft="19dp"
        android:layout_marginTop="28dp" />
</RelativeLayout>
```

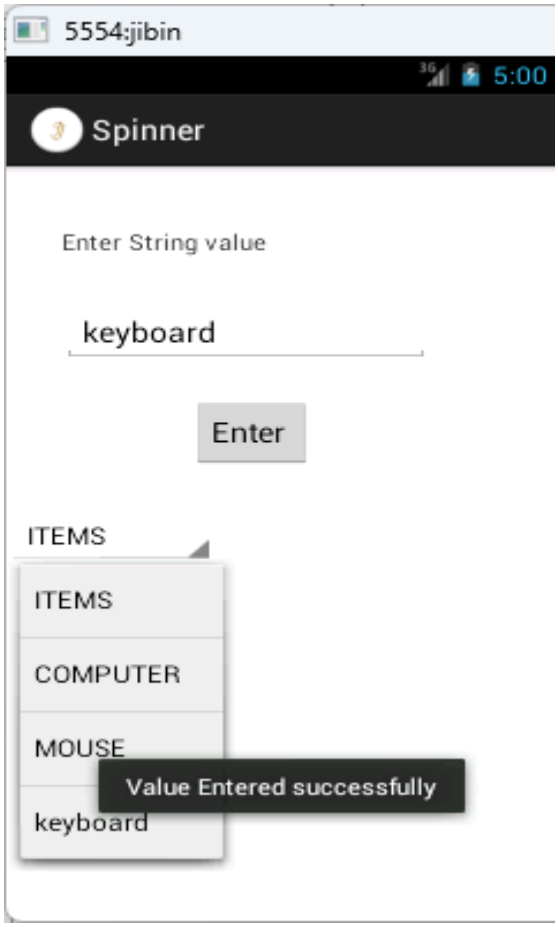
MainActivity.java file

```
package com.example.spinner;
import java.util.ArrayList;
import java.util.Collection;
import android.os.Bundle;
import android.annotation.SuppressLint;
import android.app.Activity;
import android.widget.Adapter;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Spinner;
import android.widget.Toast;
import android.text.TextUtils;
import android.view.Menu;
import android.view.View;

public class MainActivity extends Activity  {

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

```
        setContentView(R.layout.activity_main);
        final EditText selection = (EditText) findViewById(R.id.gettext);
        Spinner spin = (Spinner) findViewById(R.id.spinner);
        Button add = (Button)findViewById(R.id.add);
        final ArrayList<String> items = new ArrayList<String>();
        items.add("ITEMS");
        items.add("COMPUTER");
        items.add("MOUSE");
        ArrayAdapter aa = new ArrayAdapter(this,android.R.layout.simple_spinner_item,items);
        aa.setDropDownViewResource(
        android.R.layout.simple_spinner_dropdown_item);
        spin.setAdapter(aa);

        add.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View arg0) {
     String getitem = selection.getText().toString();
                        if(TextUtils.isEmpty(getitem))
                        {
                         Toast.makeText(MainActivity.this,
                                 "Enter Some Value", Toast.LENGTH_SHORT).show();
                                }
                                else
                                {
    items.add(getitem);
    Toast.makeText(MainActivity.this,"Value Entered successfully",
    Toast.LENGTH_SHORT).show();
                                }
                               }
        });
            }
    }
```

OUTPUT


5554:jibin
Spinner
Enter String value
Enter
ITEMS
ITEMS
COMPUTER
MOUSE


5554:jibin
5:00
Spinner
Enter String value
keyboard
Enter
ITEMS
ITEMS
COMPUTER
MOUSE
keyboard
Value Entered successfully

7. Implementation of Background Image

Activity_Main.Xml File

```
<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

```
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) {
        switch(v.getId()){
        case R.id.button1:
        v1.setImageResource(R.drawable.jj);
```

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

OUTPUT

9. Implementation of arrayadapter

Activity_Main.Xml File

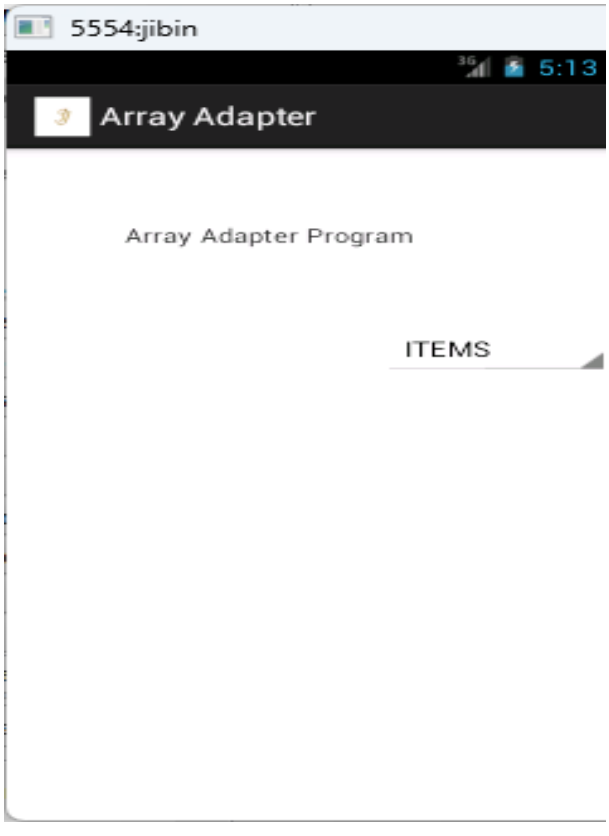
```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   tools:context=".MainActivity" >
   <Spinner
      android:id="@+id/spinner"
      android:layout_width="wrap_content"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

MainActivity.java file

```
package com.example.arrayadapter;
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>();
      items.add("ITEMS");
      items.add("COMPUTER");
      items.add("MOUSE");
      ArrayAdapter aa = new ArrayAdapter(this,android.R.layout.simple_spinner_item,items);
      aa.setDropDownViewResource(
      android.R.layout.simple_spinner_dropdown_item);
      spin.setAdapter(aa);
}
   }
```

OUTPUT



10. Create an alert dialogs used to display a message and offer two button options to continue. Clicking either button will close the dialog after executing the attached click listener

Activity_Main.Xml File

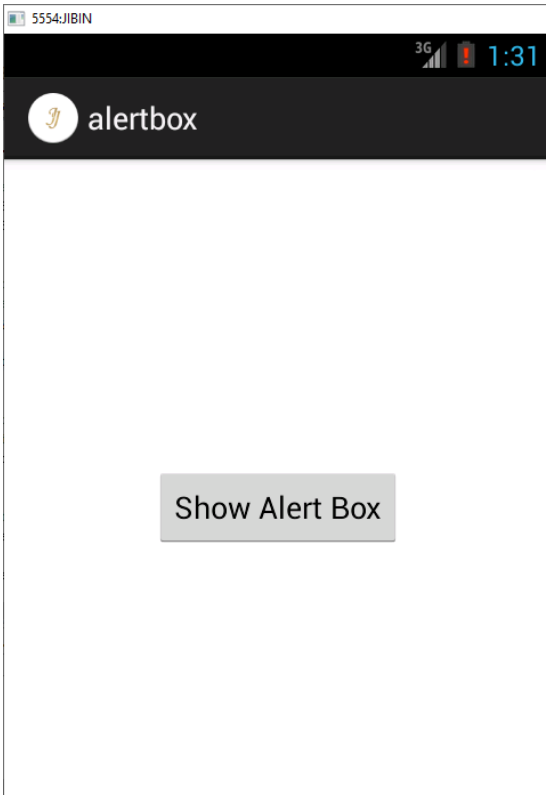
```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   tools:context=".MainActivity" >

  <Button
     android:id="@+id/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>
```

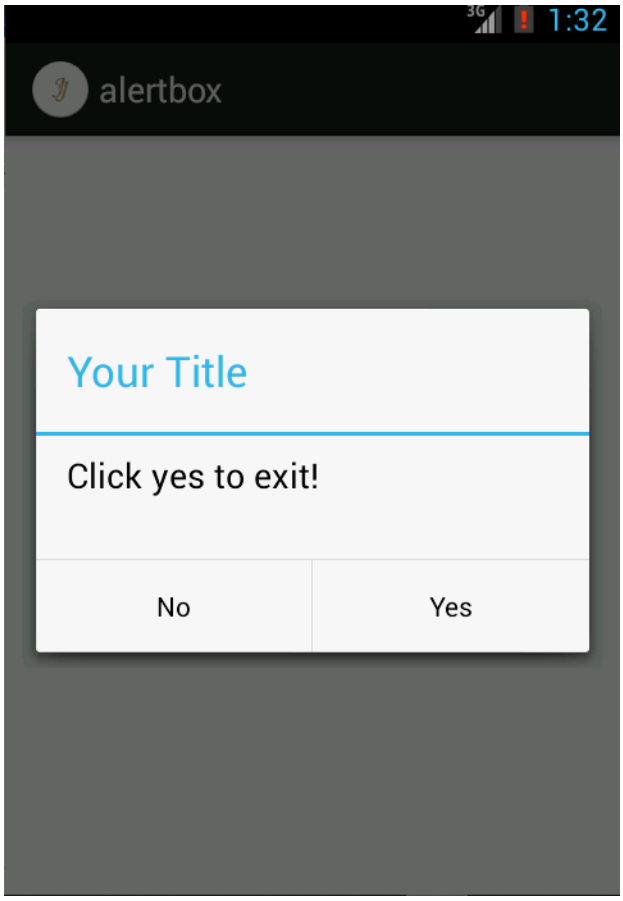
MainActivity.java file

```
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);
        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


5554:JIBIN
1:31
alertbox
Show Alert Box


1:32
alertbox
Your Title
Click yes to exit!
No
Yes

11. Load menu item by parsing XML data

Goto res> Menu> activity_main.xml

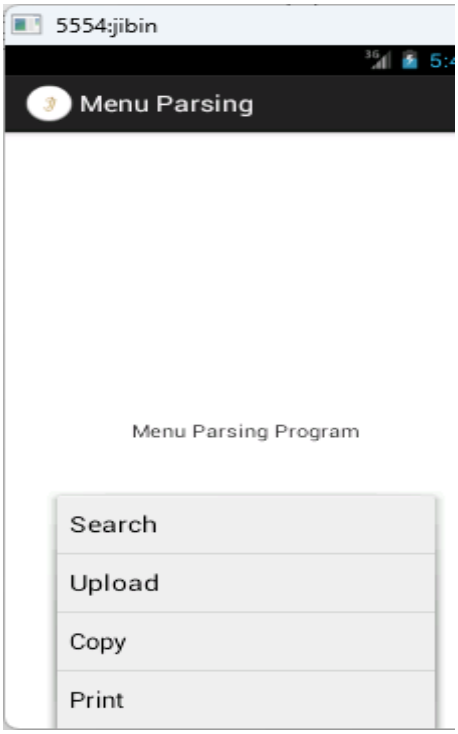
```
<menu xmlns:android="http://schemas.android.com/apk/res/android" >
   <item android:id="@+id/search_item"
      android:title="Search" />
         <item android:id="@+id/upload_item"
      android:title="Upload" />
         <item android:id="@+id/copy_item"
      android:title="Copy" />
         <item android:id="@+id/print_item"
      android:title="Print" />
         </menu>
```

MainActivity.java file

```
package com.example.menuparsing;
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) {
      // 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) {
    Toast.makeText(this, "Selected Item: " + item.getTitle(), Toast.LENGTH_SHORT)
      .show();
    switch (item.getItemId()) {
    case R.id.search_item:
      return true;
    case R.id.upload_item:
      return true;
    case R.id.copy_item:
      return true;
    case R.id.print_item:
      return true;
          default:
      return super.onOptionsItemSelected(item);
    }
  }
  }
```

OUTPUT



12. A Button control shows Date picker and Text view control displays selected date

Activity_Main.Xml File

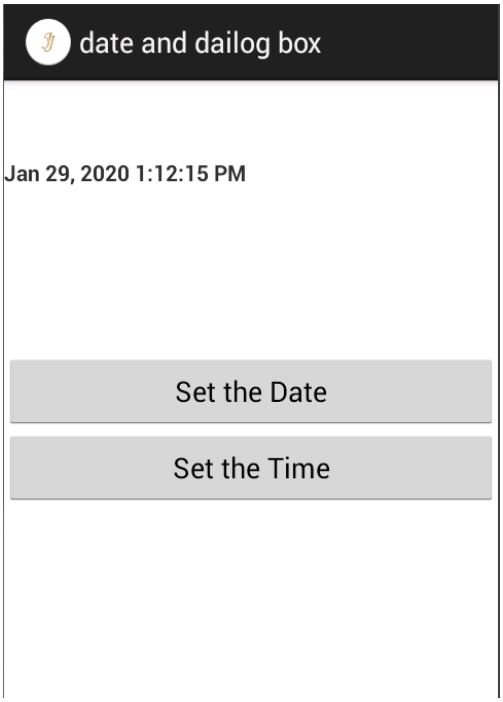
```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   tools:context=".MainActivity" >
  <Button
   android:id="@+id/btnTime"
   android:layout_width="fill_parent"
   android:layout_height="wrap_content"
   android:layout_alignParentBottom="true"
   android:layout_alignParentLeft="true"
   android:layout_marginBottom="139dp"
   android:text="Set the Time" />
  <Button
   android:id="@+id/btnDate"
   android:layout_width="fill_parent"
   android:layout_height="wrap_content"
   android:layout_above="@+id/btnTime"
   android:layout_alignParentLeft="true"
   android:text="Set the Date" />
  <TextView
   android:id="@+id/lblDateAndTime"
   android:layout_width="fill_parent"
   android:layout_height="67dp"
   android:layout_alignParentLeft="true"
   android:layout_alignParentTop="true"
   android:layout_marginTop="48dp"
   android:background="#FFFFFF"
   android:textStyle="bold" />
</RelativeLayout>
```

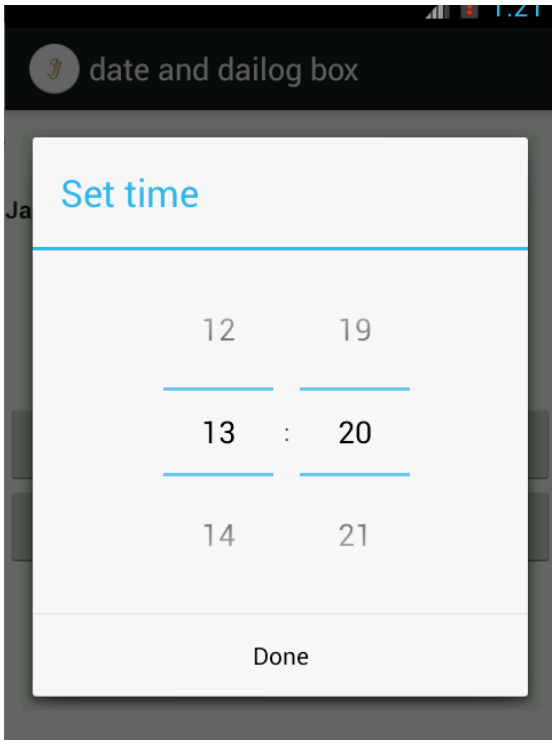
MainActivity.java file

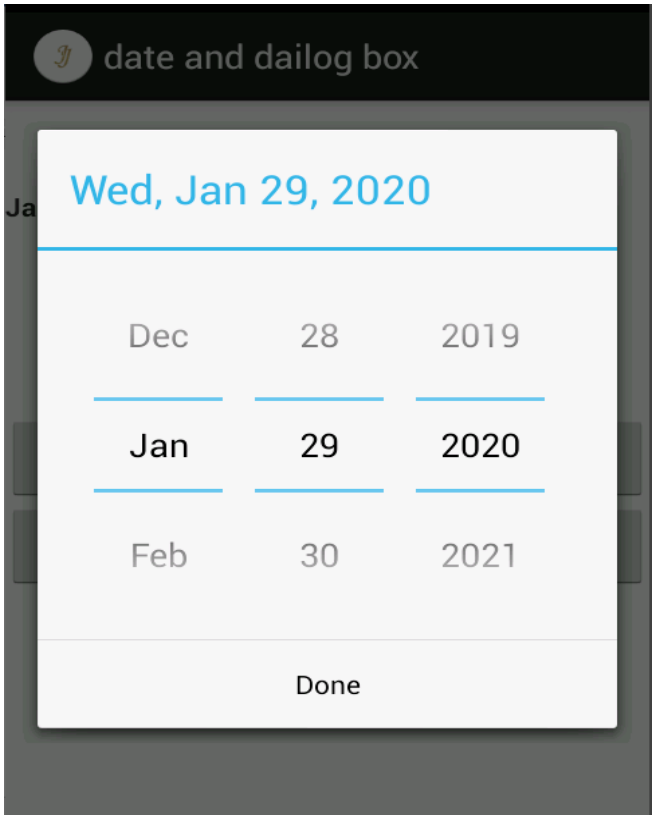
```
import android.app.Activity;
import android.os.Bundle;
import  android.app.DatePickerDialog;
import android.app.TimePickerDialog;
import android.view.Menu;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.TimePicker;
import android.widget.TextView;
import java.text.DateFormat;
import java.util.Calendar;
public class MainActivity extends Activity {
        DateFormat fmtDateAndTime = DateFormat.getDateTimeInstance();
        TextView lblDateAndTime;
        Calendar myCalendar = Calendar.getInstance();
        DatePickerDialog.OnDateSetListener d = new DatePickerDialog.OnDateSetListener()
        {
        public void onDateSet(DatePicker view, int year, int monthOfYear,
        int dayOfMonth) {
        myCalendar.set(Calendar.YEAR, year);
        myCalendar.set(Calendar.MONTH, monthOfYear);
        myCalendar.set(Calendar.DAY_OF_MONTH, dayOfMonth);
        updateLabel();
        }
        };
        TimePickerDialog.OnTimeSetListener t = new
    TimePickerDialog.OnTimeSetListener()
        {
        public void onTimeSet(TimePicker view, int hourOfDay, int minute) {
        myCalendar.set(Calendar.HOUR_OF_DAY, hourOfDay);
        myCalendar.set(Calendar.MINUTE, minute);
        updateLabel();
```

```
        }
        };
        private void updateLabel() {
        lblDateAndTime.setText(fmtDateAndTime.format(myCalendar.getTime()));
        }
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        lblDateAndTime = (TextView) findViewById(R.id.lblDateAndTime);
        Button btnDate = (Button) findViewById(R.id.btnDate);
        btnDate.setOnClickListener(new View.OnClickListener() {
        public void onClick(View v) {
        new DatePickerDialog(MainActivity.this, d, myCalendar .get(Calendar.YEAR),
myCalendar.get(Calendar.MONTH),myCalendar.get(Calendar.DAY_OF_MONTH)).show();
        }
        });
        Button btnTime = (Button) findViewById(R.id.btnTime);
        btnTime.setOnClickListener(new View.OnClickListener() {
        public void onClick(View v) {
        new TimePickerDialog(MainActivity.this, t, myCalendar
.get(Calendar.HOUR_OF_DAY), myCalendar .get(Calendar.MINUTE), true).show();
        }
        });
        updateLabel();
    }
```

OUTPUT


date and dailog box
Jan 29, 2020 1:12:15 PM
Set the Date
Set the Time


date and dailog box
Set time
12
19
13
:
20
14
21
Done


date and dailog box
Wed, Jan 29, 2020
Dec
28
2019
Jan
29
2020
Feb
30
2021
Done

13. Create a spinner that takes data from the String.xml file

Goto>Res/values/strings.xml

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <string name="app_name">Spinner new</string>
     <string name="menu_settings">Settings</string>
        <string-array name="fruits">
        <item>Apple</item>
        <item>Orange</item>
        <item>PineApple</item>
        <item>Watermelon</item>
         </string-array>
</resources>
```

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_alignParentLeft="true"
        android:layout_alignParentTop="true"
        android:layout_marginLeft="97dp"
        android:layout_marginTop="40dp"
        android:text="SPINNER PROGRAM" />

    <Spinner
```

```
        android:id="@+id/spinner"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentLeft="true"
        android:layout_below="@+id/textView1"
        android:layout_marginTop="65dp" />

</RelativeLayout>
```

MainActivity.java file

```
package com.example.spinnernew;
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);
      ArrayAdapter adapter = ArrayAdapter.createFromResource(this,R.array.fruits,
            android.R.layout.simple_spinner_item);
      spin.setAdapter(adapter);
   }
}
```

OUTPUT


5554:jibin
6:06
Spinner new
SPINNER PROGRAM
Apple


5554:jibin
6:06
Spinner new
SPINNER PROGRAM
Apple
Apple
Orange
PineApple
Watermelon

14. 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

```
<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>
```

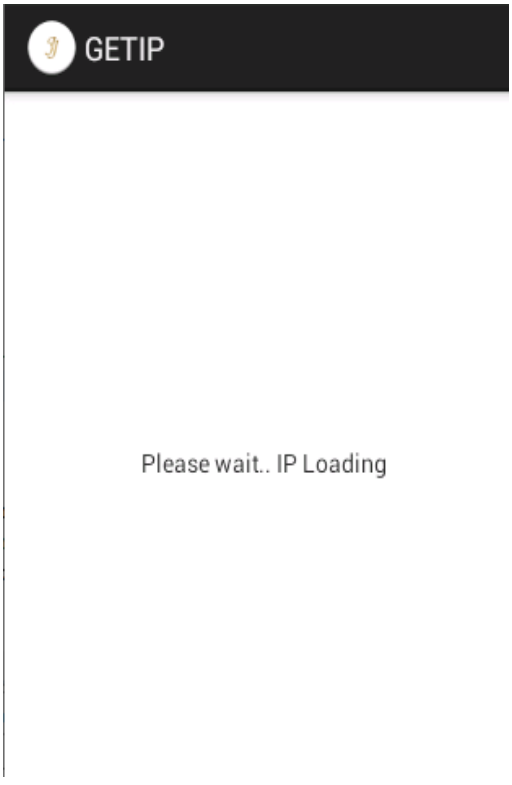
MainActivity.java file

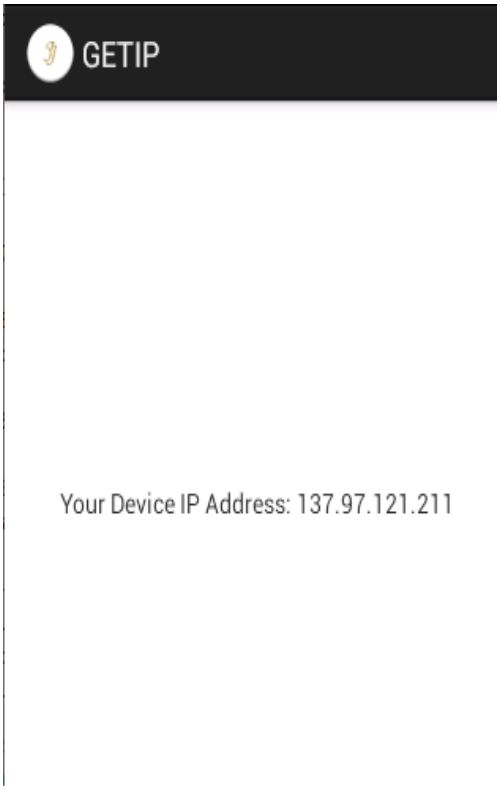
```
package com.example.getip;
import java.io.BufferedReader;
import java.io.InputStreamReader;
import java.net.HttpURLConnection;
import java.net.URL;
```

```
import java.util.ArrayList;
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());
        }
          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





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

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="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: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);
```

```
        }
        });
            }
```

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;
        }
}
```

OUTPUT