

## PROGRAM:1

### XML:

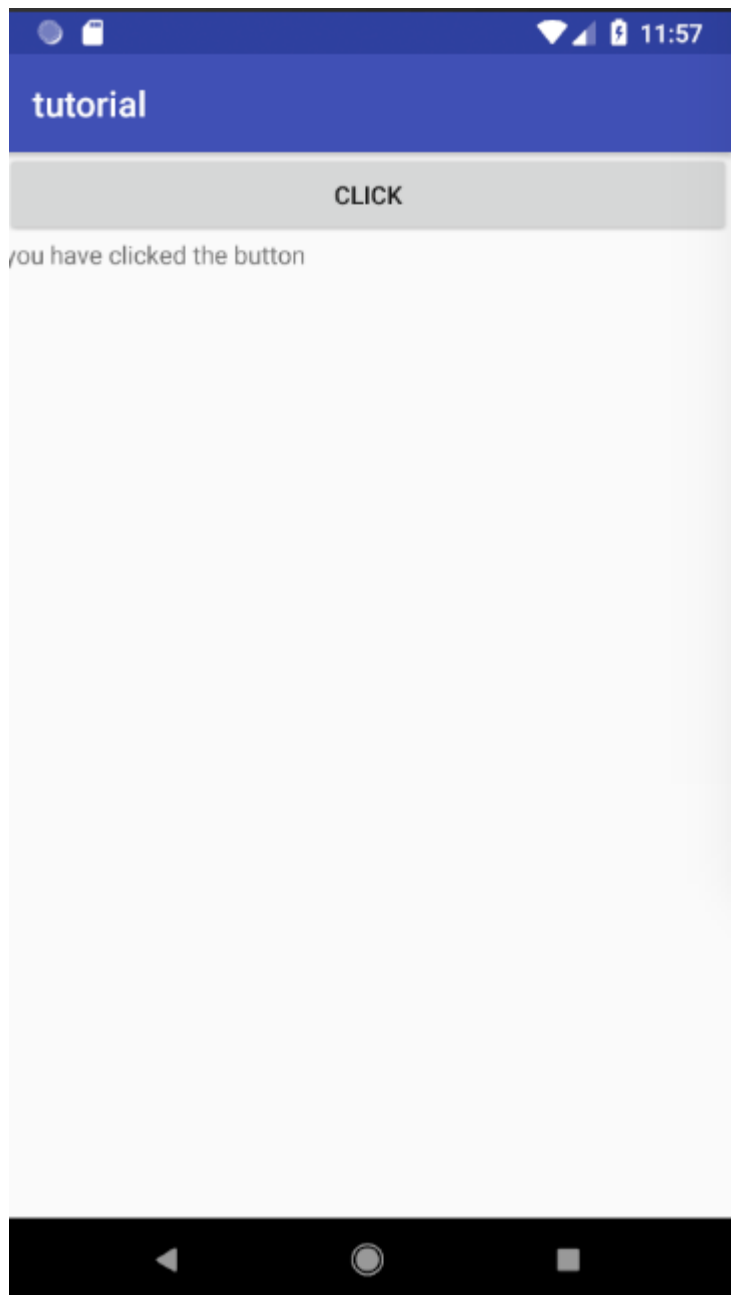
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity">
    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Click"
        android:id="@+id/button"/>
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Hello World!"
            android:id="@+id/tv"
        />
    </LinearLayout>
```

### JAVA:

```
package com.example.andlabbb.tutorial;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
    Button b;
    TextView tv;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b=findViewById(R.id.button);
        tv=findViewById(R.id.tv);
        b.setOnClickListener(new View.OnClickListener() {
```

```
        @Override
        public void onClick(View v) {
            tv.setText("you have clicked the button");
        }
    });
}
```

OUTPUT:



## PROGRAM:2

### XML:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
  xmlns:app="http://schemas.android.com/apk/res-auto"
  xmlns:tools="http://schemas.android.com/tools"
  android:layout_width="match_parent"
  android:layout_height="match_parent"
  android:orientation="vertical"
  tools:context=".Main2Activity">
  <CheckBox
    android:id="@+id/india"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="INDIA"/>
  <CheckBox
    android:id="@+id/sri"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="SRILANKA"/>
  <CheckBox
    android:id="@+id/paki"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="PAKISTHAN"/>
  <TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Hello World!"
    android:id="@+id/tv"
  />
</LinearLayout>
```

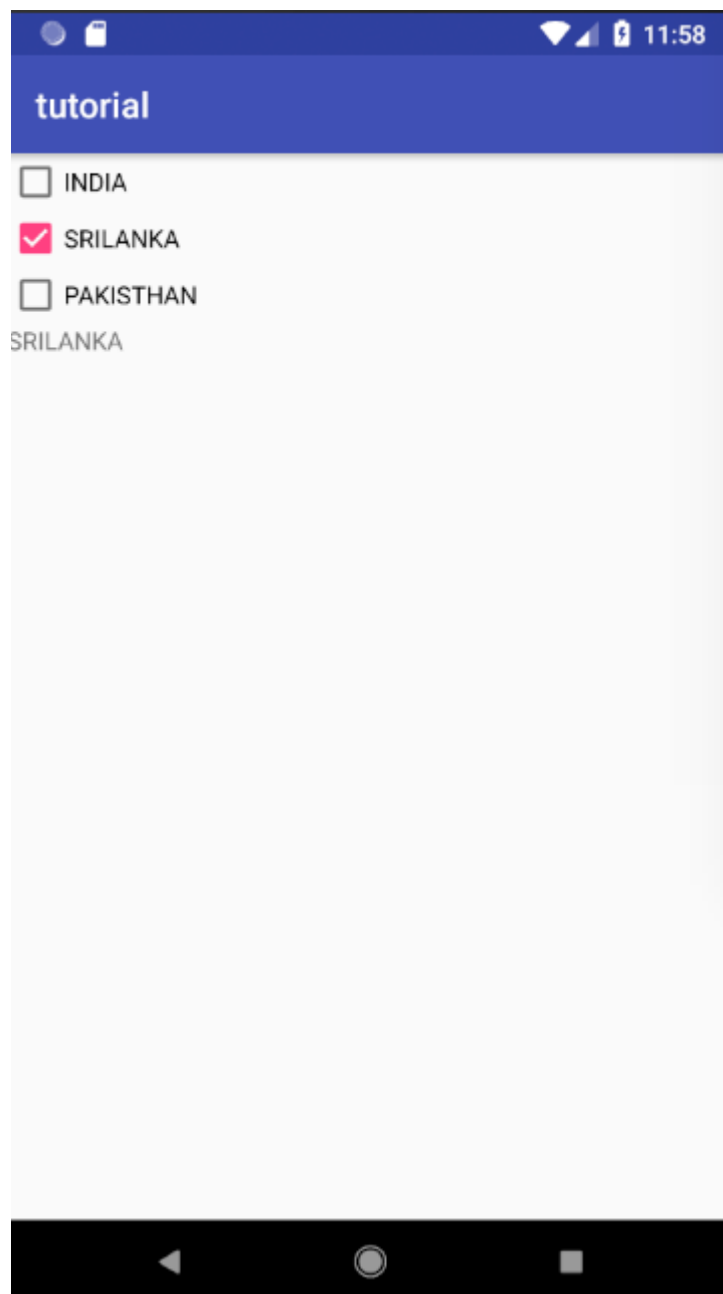
### JAVA:

```

package com.example.andlabb.tutorial;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.CheckBox;
import android.widget.CompoundButton;
import android.widget.TextView;
public class Main2Activity extends AppCompatActivity {
    TextView tv;
    CheckBox cb1,cb2,cb3;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        tv=findViewById(R.id.tv);
        cb1=findViewById(R.id.india);
        cb2=findViewById(R.id.sri);
        cb3=findViewById(R.id.paki);
        cb1.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView,
boolean isChecked) {
                if(isChecked)
                {
                    tv.setText("INDIA");
                }
            }
        });
        cb2.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView,
boolean isChecked) {
                if(isChecked)
                {
                    tv.setText("SRILANKA");
                }
            }
        });
        cb3.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView,
boolean isChecked) {
                if(isChecked)
                {
                    tv.setText("PAKISTHAN");
                }
            }
        });
    }
}

```

OUTPUT:



### PROGRAM:3

#### XML:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".Main2Activity">
    <CheckBox
        android:id="@+id/india"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="INDIA"/>
    <CheckBox
        android:id="@+id/sri"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="SRILANKA"/>
    <CheckBox
        android:id="@+id/paki"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="PAKISTHAN"/>
    <EditText
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        android:id="@+id/tv"
    />
</LinearLayout>
```

#### JAVA:

```
package com.example.andlabb.tutorial;
import android.support.v7.app.AppCompatActivity;
```

```

import android.os.Bundle;
import android.widget.CheckBox;
import android.widget.CompoundButton;
import android.widget.EditText;
import android.widget.TextView;
import java.util.ArrayList;
public class Main3Activity extends AppCompatActivity {
    EditText et;
    CheckBox cb1,cb2,cb3;
    ArrayList<String> s = new ArrayList<String>();
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main3);
        et=findViewById(R.id.tv);
        cb1=findViewById(R.id.india);
        cb2=findViewById(R.id.sri);
        cb3=findViewById(R.id.paki);
        cb1.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView,
boolean isChecked) {
                if(isChecked)
                {
                    s.add("INDIA");
                    et.setText(s.toString());
                }
                else {
                    s.remove("INDIA");
                    et.setText(s.toString());
                }
            }
        });
        cb2.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView,
boolean isChecked) {
                if(isChecked)
                {
                    s.add("SRILANKA");
                    et.setText(s.toString());
                }
                else {
                    s.remove("SRILANKA");
                    et.setText(s.toString());
                }
            }
        });
        cb3.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
            @Override

```

```

        public void onCheckedChanged(CompoundButton buttonView,
boolean isChecked) {
            if(isChecked)
            {
                s.add("PAKISTAN");
                et.setText(s.toString());
            }
            else {
                s.remove("PAKISTAN");
                et.setText(s.toString());
            }
        }
    }
});
}
}

```

OUTPUT:





## PROGRAM:4

### XML:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".Main4Activity">
    <ToggleButton
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/tb"/>
    <ToggleButton
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/tb1"/>
    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="click"/>
</LinearLayout>
```

### JAVA:

```
package com.example.andlabb.tutorial;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.CompoundButton;
import android.widget.Toast;
import android.widget.ToggleButton;
public class Main4Activity extends AppCompatActivity {
    ToggleButton tb;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main4);
        tb=findViewById(R.id.tb);
        tb.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
```

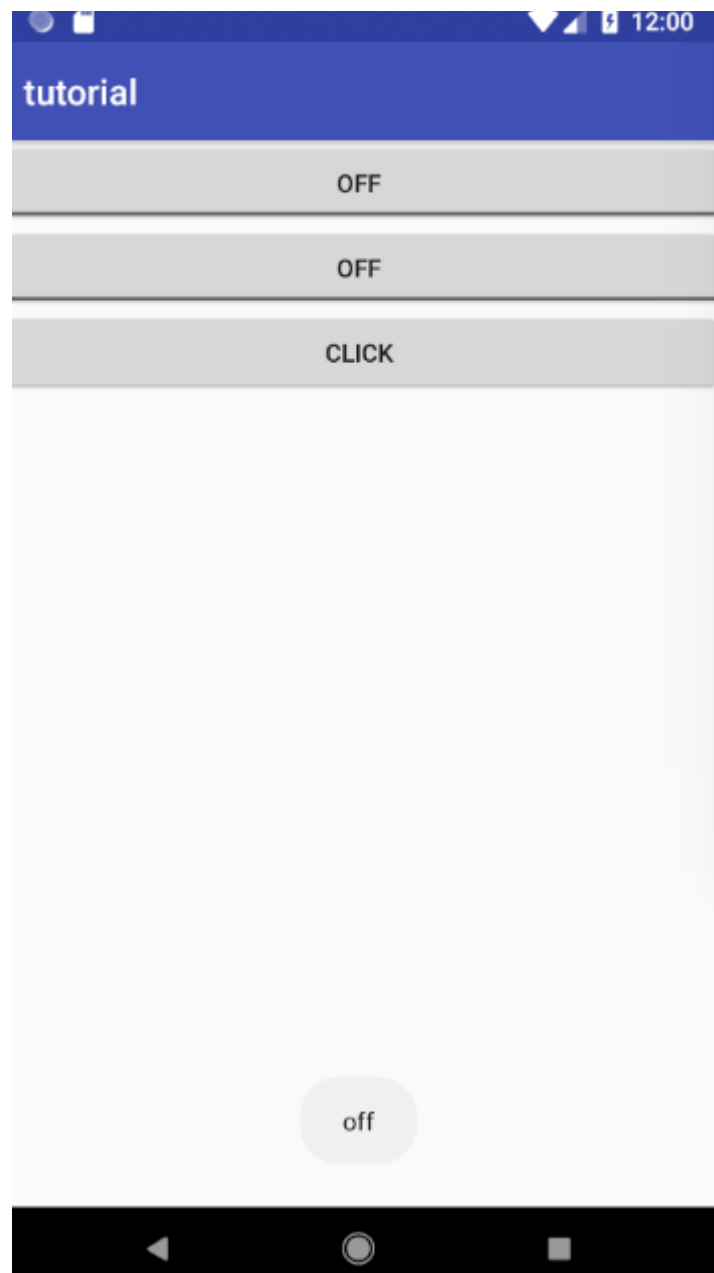
```

        @Override
        public void onCheckedChanged(CompoundButton buttonView,
boolean isChecked) {
            if(isChecked)

Toast.makeText(getApplicationContext(),"on",Toast.LENGTH_LONG).show();
            else

Toast.makeText(getApplicationContext(),"off",Toast.LENGTH_LONG).show()
;
        }
    }
}

```



## PROGRAM:5

### XML:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".Main5Activity">
    <RadioGroup
        android:id="@+id/gender"
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <RadioButton
            android:id="@+id/male"
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:text="Male"/>
        <RadioButton
            android:id="@+id/female"
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:text="Female"/>
    </RadioGroup>
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/tv"/>
</LinearLayout>
```

### JAVA:

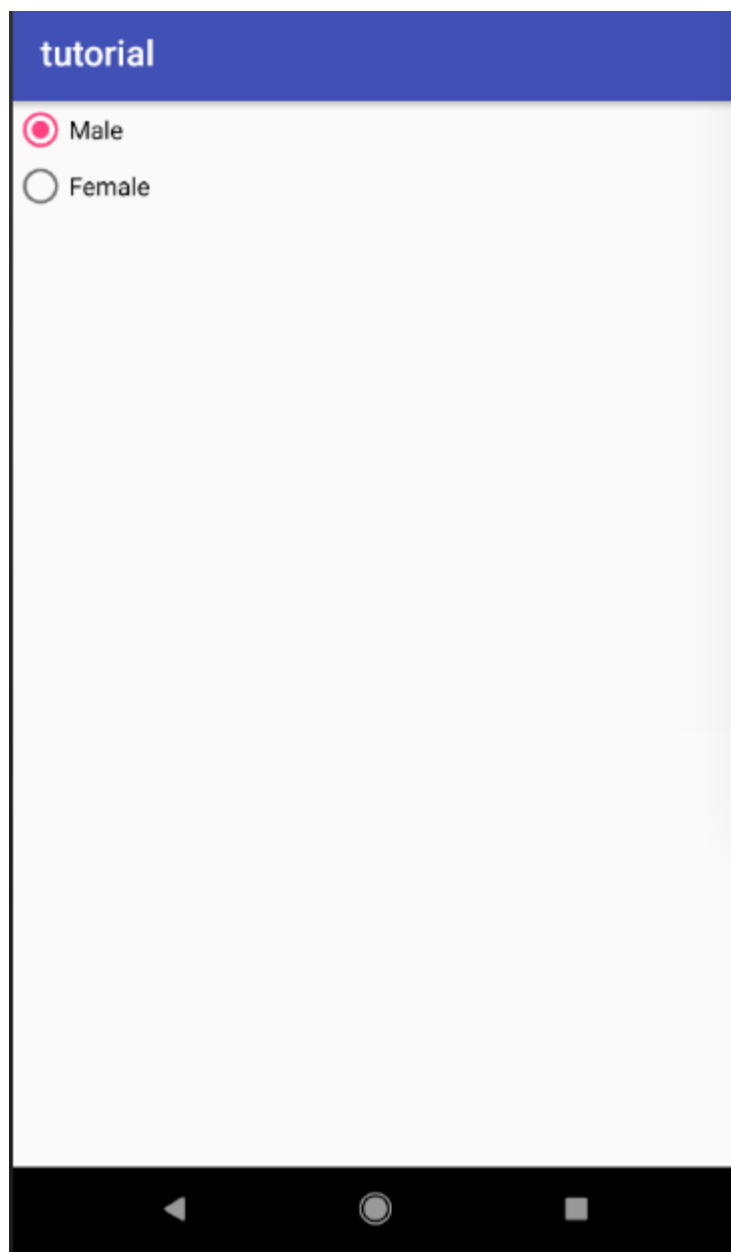
```
package com.example.andlabb.tutorial;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.CompoundButton;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;
import android.widget.Toast;
public class Main5Activity extends AppCompatActivity {
    RadioGroup rg;
    RadioButton rb;
```

```

TextView tv;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main5);
    rg=findViewById(R.id.gender);
    tv=findViewById(R.id.tv);
    rg.setOnCheckedChangeListener(new
RadioGroup.OnCheckedChangeListener() {
    @Override
    public void onCheckedChanged(RadioGroup group, int
checkedId) {
        int selectedId = rg.getCheckedRadioButtonId();
        // find the radiobutton by returned id
        rb = (RadioButton) findViewById(selectedId);
        tv.setText(rb.getText());
    }
    });
}
}

```

OUTPUT:



## PROGRAM:6

### XML:

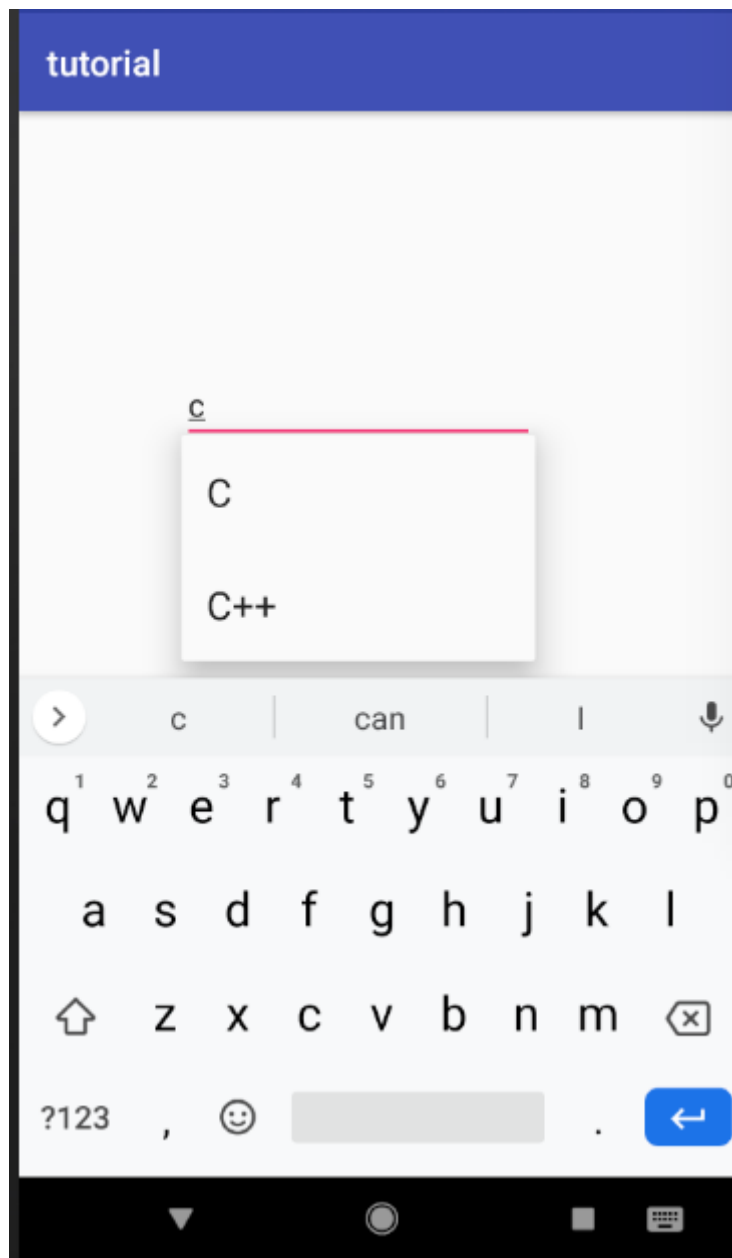
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".Main6Activity">
    <AutoCompleteTextView
        android:id="@+id/autoCompleteTextView"
        android:layout_width="200dp"
        android:layout_height="wrap_content"
        android:layout_marginLeft="92dp"
        android:layout_marginTop="144dp"
        android:text=""
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</LinearLayout>
```

### JAVA:

```
package com.example.andlab.tutorial;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;
public class Main6Activity extends AppCompatActivity {
    String[] language = {"C", "C+",
    +, "Java", ".NET", "iPhone", "Android", "ASP.NET", "PHP"};
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main6);
        ArrayAdapter<String> adapter = new ArrayAdapter<String>
            (this, android.R.layout.select_dialog_item, language);
        //Getting the instance of AutoCompleteTextView
        AutoCompleteTextView actv =
        (AutoCompleteTextView)findViewById(R.id.autoCompleteTextView);
        actv.setThreshold(1);//will start working from first character
```

```
        activ.setAdapter(adapter);//setting the adapter data into the  
        AutoCompleteTextView  
    }  
}
```

OUTPUT:



## PROGRAM:7

### XML:

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

<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".Main7Activity">
    <ImageView
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:src="@drawable/android1"
        android:layout_weight="10"
        android:id="@+id/image"/>
    <Button
        android:id="@+id/b"
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:text="Change Image"
        android:layout_weight="1"/>
</LinearLayout>
```

### JAVA:

```
package com.example.andlab.tutorial;

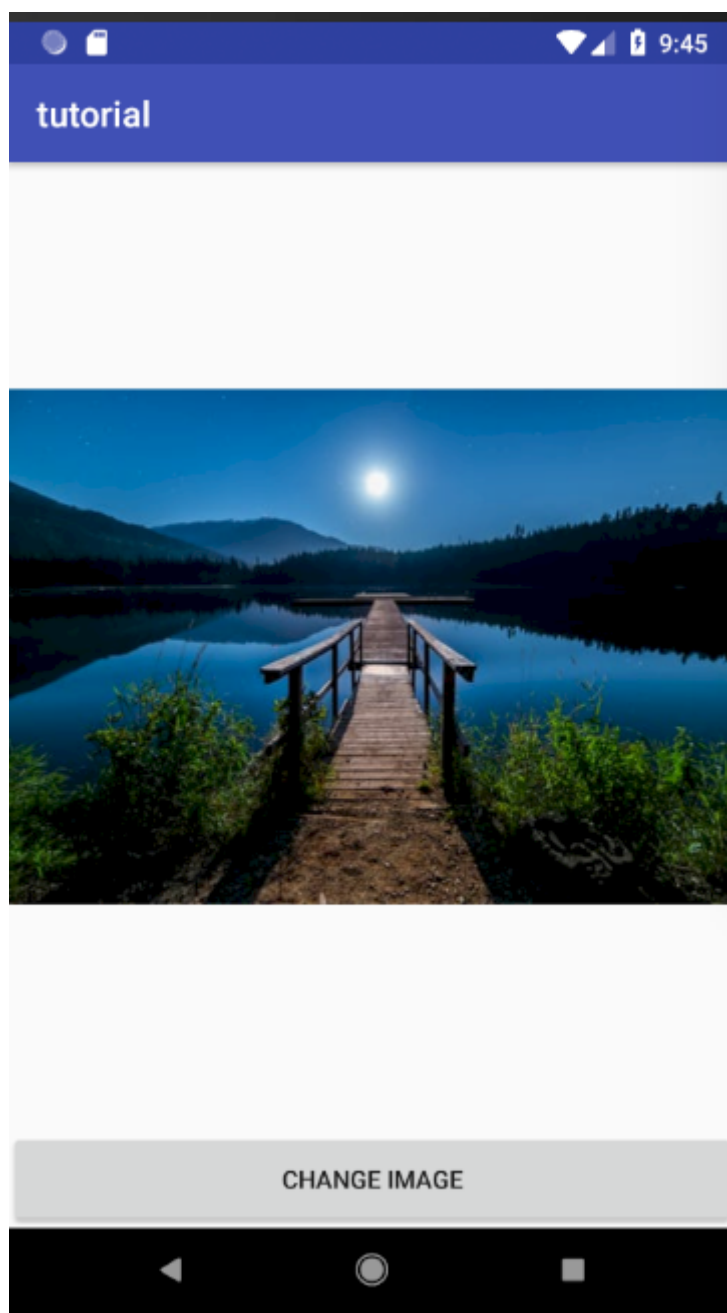
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
public class Main7Activity extends AppCompatActivity {
    ImageView iv;
    Button b;
    int i=0;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
```

```

super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main7);
iv=findViewById(R.id.image);
b=findViewById(R.id.b);
b.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        if(i==0)
        {
            iv.setImageResource(R.drawable.android1);
            i=1;
        }else if(i==1)
        {
            iv.setImageResource(R.drawable.android2);
            i=0;
        }
    }
});
}
}
}

```

OUTPUT:





## PROGRAM: 8

### XML:

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

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

    <ImageButton
        android:id="@+id/simpleImageButtonHome"
        android:layout_width="100dp"
        android:layout_height="100dp"
        android:layout_centerHorizontal="true"
        android:background="@drawable/utube"
        android:padding="20dp"
        android:scaleType="fitCenter"
        android:src="@drawable/home" />
    <ImageButton
        android:id="@+id/simpleImageButtonYouTube"
        android:layout_width="100dp"
        android:layout_height="100dp"
        android:layout_below="@+id/simpleImageButtonHome"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="20dp"
        android:background="#005"
        android:padding="20dp"
        android:scaleType="fitCenter"
        android:src="@drawable/utube" />
</RelativeLayout>
```

### JAVA:

```
package com.example.andlabbb.tutorial;

import android.app.Activity;
import android.graphics.Color;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.Menu;
```

```

import android.view.MenuItem;
import android.view.View;
import android.widget.ImageButton;
import android.widget.RelativeLayout;
import android.widget.Toast;
public class Main8Activity extends Activity {
    RelativeLayout tl;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main8);
        tl=findViewById(R.id.abc);
// initiate view's
        ImageButton simpleImageButtonHome =
        (ImageButton)findViewById(R.id.simpleImageButtonHome);
        ImageButton simpleImageButtonYouTube =
        (ImageButton)findViewById(R.id.simpleImageButtonYouTube);
// perform click event on button's
        simpleImageButtonHome.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View view) {
                tl.setBackgroundResource(R.drawable.home);
            }
        });
        simpleImageButtonYouTube.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View view) {
                tl.setBackgroundResource(R.drawable.utube);
            }
        });
    }
}

```

**OUTPUT :**



## PROGRAM:9

### XML:

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

<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".Main9Activity">
    <TimePicker
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/timepicker"
    ></TimePicker>
    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="pick"
        android:id="@+id/b"/>
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textAlignment="center"
        android:textSize="35dp"
        android:id="@+id/tv"/>
</LinearLayout>
```

### JAVA:

```
package com.example.andlab.tutorial;

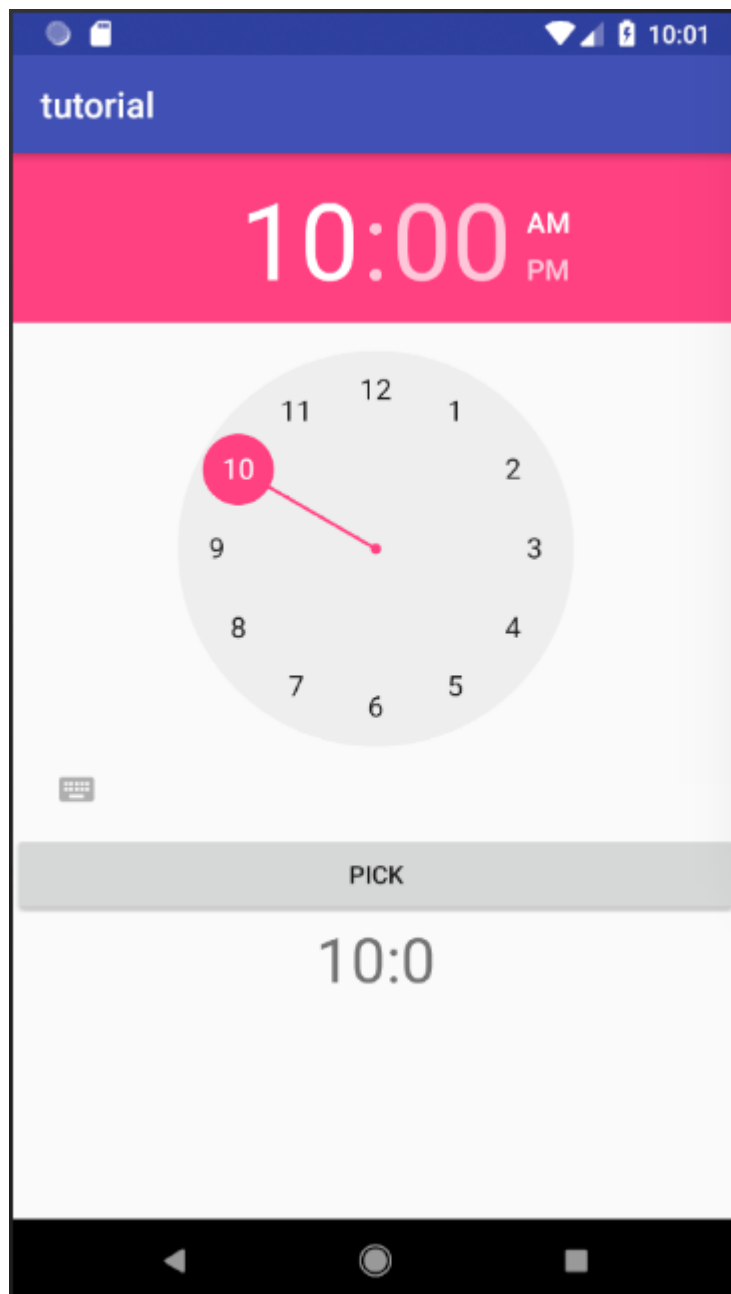
import android.os.Build;
import android.support.annotation.RequiresApi;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.TimePicker;
public class Main9Activity extends AppCompatActivity {
    TimePicker tp;
    Button b;
    TextView tv;
    @Override
```

```

protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main9);
    tp=findViewById(R.id.timepicker);
    b=findViewById(R.id.b);
    tv=findViewById(R.id.tv);
    b.setOnClickListener(new View.OnClickListener() {
        @RequiresApi(api = Build.VERSION_CODES.M)
        @Override
        public void onClick(View v) {
            tv.setText(tp.getHour()+":"+tp.getMinute());
        }
    });
}
}

```

OUTPUT:



## PROGRAM:10

### XML:

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

<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".Main9Activity">
    <DatePicker
        android:id="@+id/date_picker"
        android:layout_width="match_parent"
        android:calendarViewShown="true"
        android:spinnersShown="false"
        android:layout_weight="4"
        android:layout_height="0dp" />
    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="pick"
        android:id="@+id/b"/>
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textAlignment="center"
        android:textSize="35dp"
        android:id="@+id/tv"/>
</LinearLayout>
```

### JAVA:

```
package com.example.andlabb.tutorial;

import android.os.Build;
import android.support.annotation.RequiresApi;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
```

```

import android.widget.DatePicker;
import android.widget.TextView;
import android.widget.TimePicker;
public class Main10Activity extends AppCompatActivity {
    DatePicker dp;
    Button b;
    TextView tv;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main10);
        dp=findViewById(R.id.date_picker);
        b=findViewById(R.id.b);
        tv=findViewById(R.id.tv);
        b.setOnClickListener(new View.OnClickListener() {
            @RequiresApi(api = Build.VERSION_CODES.M)
            @Override
            public void onClick(View v) {
                tv.setText(dp.getDayOfMonth()+"-"+dp.getMonth()+
+"-"+dp.getYear());
            }
        });
    }
}

```

### OUTPUT :

