

Lab Manual

Lab (7): Dynamic UI



Visual Programming for Smart Devices lab

❖ Objectives:

create an android application using Dynamic UI.

Task 1: Try IT an application using Dynamic UI. Write this code then show the output.

```
package com.example.admin.myapplication;

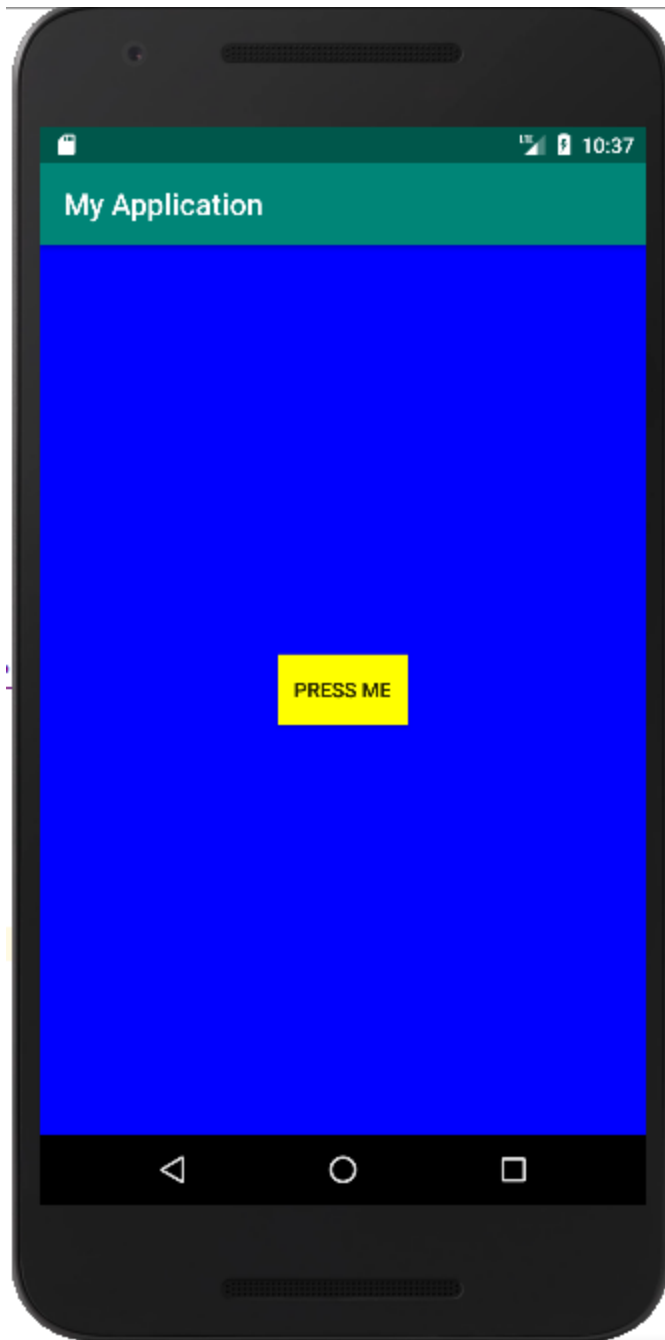
import android.graphics.Color;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.Button;
import android.widget.RelativeLayout;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        Button myButton = new Button(this);
        myButton.setText("Press me");
        myButton.setBackgroundColor(Color.YELLOW);
        RelativeLayout myLayout = new RelativeLayout(this);
        myLayout.setBackgroundColor(Color.BLUE);
        RelativeLayout.LayoutParams buttonParams = new
RelativeLayout.LayoutParams
(RelativeLayout.LayoutParams.WRAP_CONTENT,RelativeLayout.LayoutParams.WRAP_CONT
ENT);
        buttonParams.addRule(RelativeLayout.CENTER_HORIZONTAL);
        buttonParams.addRule(RelativeLayout.CENTER_VERTICAL);

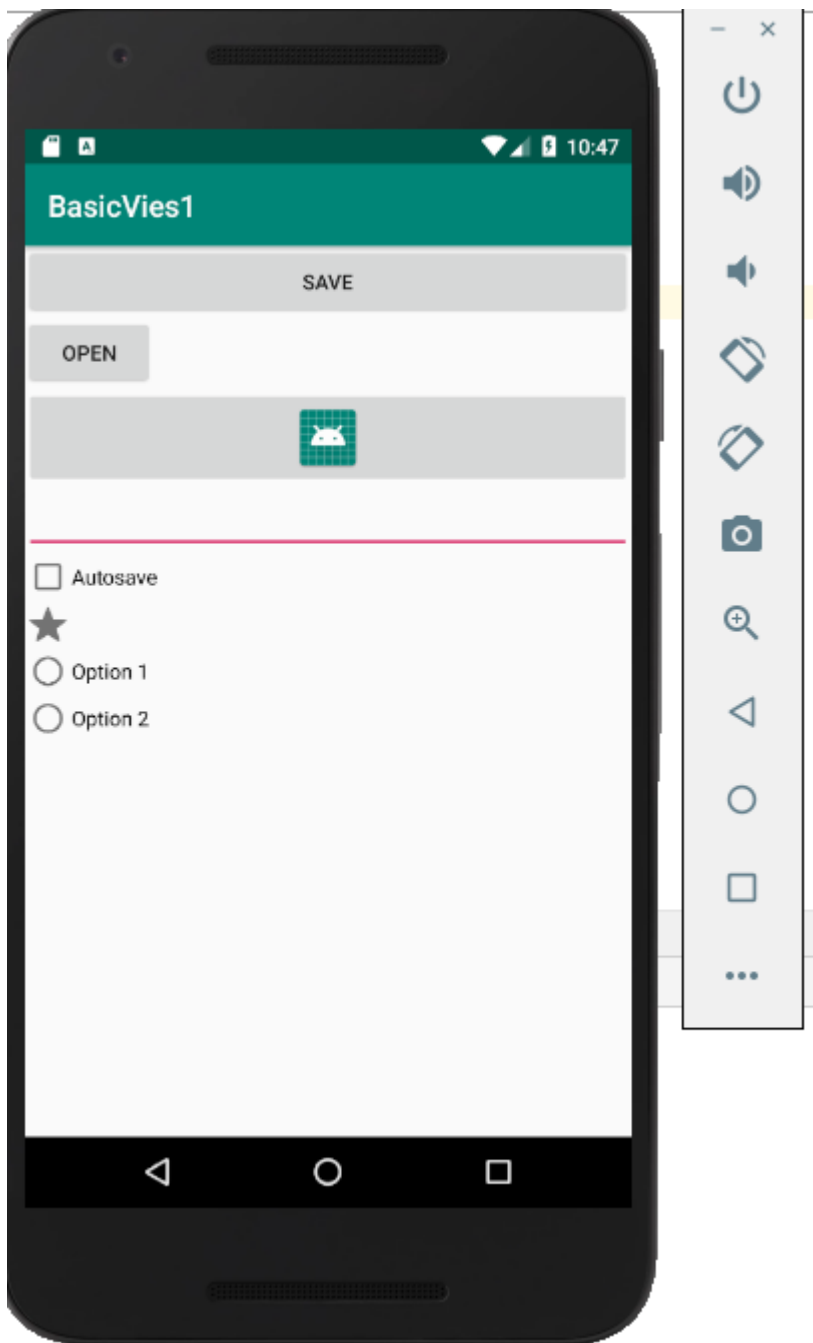
        myLayout.addView(myButton,buttonParams);
        setContentView(myLayout);
    }
}
```

The output :



Task 2:

Write your program to design the following application:



```

package com.example.user.myapplication;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.*;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        Button b1=new Button(MainActivity.this);
        b1.setText("save");
        Button b2=new Button(MainActivity.this);
        b2.setText("open");
        ImageButton b3=new ImageButton(MainActivity.this);
        b3.setImageResource(R.drawable.ic_launcher_foreground);

        EditText et = new EditText(this);

        CheckBox c1=new CheckBox(this);
        c1.setText("AutoSave");

        RadioGroup rg=new RadioGroup(this);
        rg.setOrientation(LinearLayout.VERTICAL);
        RadioButton rb1=new RadioButton(this);
        rb1.setText("Option 1");
        RadioButton rb2=new RadioButton(this);
        rb2.setText("Option 2");

        LinearLayout myLayout = new LinearLayout (this);

        LinearLayout.LayoutParams saveParams = new LinearLayout
        .LayoutParams(LinearLayout
        .LayoutParams.MATCH_PARENT,LinearLayout
        .LayoutParams.WRAP_CONTENT);
        LinearLayout.LayoutParams openParams=new
        LinearLayout.LayoutParams(LinearLayout.LayoutParams.WRAP_CONTENT,
        LinearLayout.LayoutParams.WRAP_CONTENT);
        LinearLayout.LayoutParams imageParams=new
        LinearLayout.LayoutParams(LinearLayout.LayoutParams.MATCH_PARENT,
        LinearLayout.LayoutParams.WRAP_CONTENT);
        LinearLayout.LayoutParams etParams=new
        LinearLayout.LayoutParams(LinearLayout.LayoutParams.MATCH_PARENT,
        LinearLayout.LayoutParams.WRAP_CONTENT);
        LinearLayout.LayoutParams chParams=new
        LinearLayout.LayoutParams(LinearLayout.LayoutParams.MATCH_PARENT,
        LinearLayout.LayoutParams.WRAP_CONTENT);
        LinearLayout.LayoutParams rgParams=new

```

```
LinearLayout.LayoutParams(LinearLayout.LayoutParams.MATCH_PARENT,  
LinearLayout.LayoutParams.WRAP_CONTENT);
```

```
        myLayout.setOrientation(LinearLayout.VERTICAL);  
        myLayout.addView(b1,saveParams);  
        myLayout.addView(b2,openParams);  
        myLayout.addView( b3,imageParams);  
        myLayout.addView(et,etParams);  
        myLayout.addView( c1,chParams);  
        myLayout.addView( rg,rgParams);  
        rg.addView( rb1,rgParams);  
        rg.addView( rb2,rgParams);  
        setContentView(myLayout);  
    }  
}
```