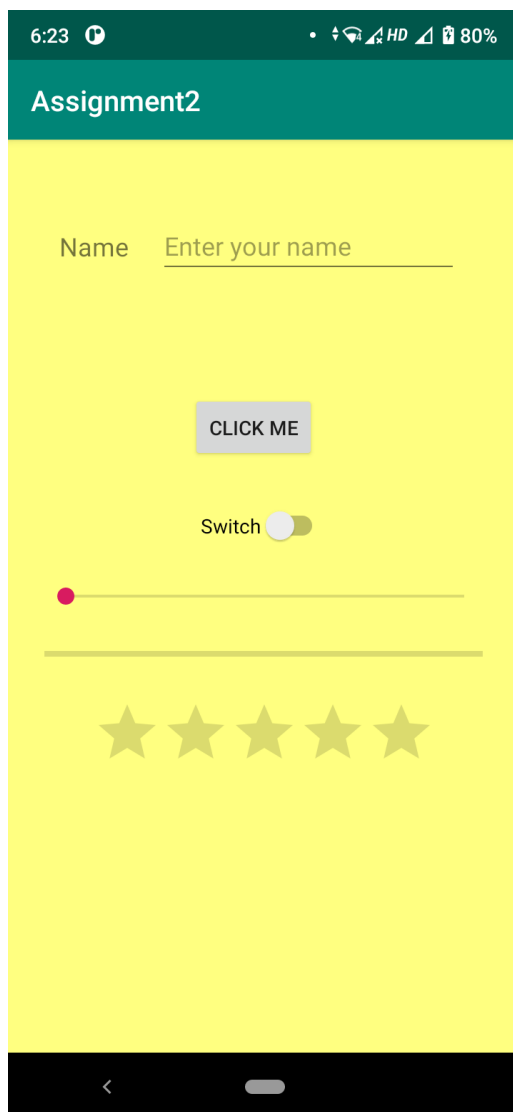
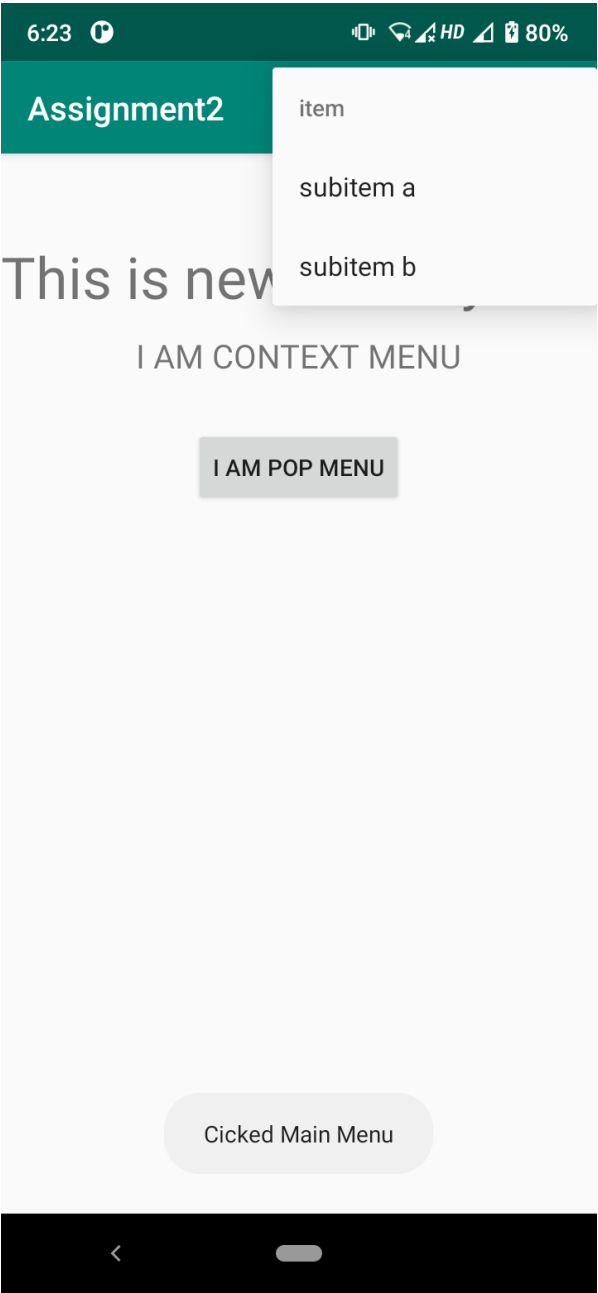


Assignment-2

Name	Manvi Pandya
Roll no.	43233
Aim	Android UI Design: Design a User Interface using pre-built UI components such as structured layout objects, UI controls and special interfaces such as dialogs, notifications, and menus. Also make this UI attractive using Android graphics platform OpenGL.

Output





Code

MainActivity.java

```
package com.example.assignment2;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class MainActivity extends AppCompatActivity {

    private OpenGLView openGLView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        openGLView=(OpenGLView)findViewById(R.id.openGLView);
    }

    @Override
    protected void onResume() {
        super.onResume();
        openGLView.onResume();
    }

    @Override
    protected void onPause() {
        super.onPause();
        openGLView.onPause();
    }

    public void OnButtonClick(View view) {
        startActivity(new Intent(MainActivity.this, Main2Activity.class));
    }
}
```

Main2Activity.java

```
package com.example.assignment2;

import android.os.Bundle;
import android.view.ContextMenu;
import android.view.Menu;
```

```

import android.view.MenuInflater;
import android.view.MenuItem;
import android.view.View;
import android.widget.PopupMenu;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class Main2Activity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        registerForContextMenu((TextView)findViewById(R.id.t1));
    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        MenuInflater mi = getMenuInflater();
        mi.inflate(R.menu.menu_file,menu);
        return true;
    }
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()){
            case R.id.i1:
                Toast.makeText(this,"Cicked Main Menu",Toast.LENGTH_SHORT).show();
                break;
            case R.id.i2:
                Toast.makeText(this,"I am sub-menu 1",Toast.LENGTH_SHORT).show();
                break;
            case R.id.i3:
                Toast.makeText(this,"I am sub-menu 2",Toast.LENGTH_SHORT).show();
                break;
        }
        return true;
    }
    @Override
    public void onCreateContextMenu(ContextMenu menu, View v,
                                   ContextMenu.ContextMenuInfo menuInfo) {
        super.onCreateContextMenu(menu, v, menuInfo);
        MenuInflater mi = getMenuInflater();
        mi.inflate(R.menu.menu_file,menu);
    }
    @Override

```

```

public boolean onOptionsItemSelected(MenuItem item) {
    switch (item.getItemId()){
        case R.id.i1:
            Toast.makeText(this,"Clicked Main menu",Toast.LENGTH_SHORT).show();
            break;
        case R.id.i2:
            Toast.makeText(this,"I am sub-menu 1",Toast.LENGTH_SHORT).show();
            break;
        case R.id.i3:
            Toast.makeText(this,"I am sub-menu 2",Toast.LENGTH_SHORT).show();
            break;
    }
    return true;
}

public void pop(View v){
    PopupMenu popup = new PopupMenu(this,v);
    MenuInflater mi = getMenuInflater();
    mi.inflate(R.menu.menu_file,popup.getMenu());
    popup.show();
}

public boolean onOptionsItemSelected(MenuItem item)
{
    switch (item.getItemId()){
        case R.id.i1:
            Toast.makeText(this,"Clicked Main menu",Toast.LENGTH_SHORT).show();
            break;
        case R.id.i2:
            Toast.makeText(this,"I am sub-menu 1",Toast.LENGTH_SHORT).show();
            break;
        case R.id.i3:
            Toast.makeText(this,"I am sub-menu 2",Toast.LENGTH_SHORT).show();
            break;
    }
    return true;
}
}

```

OpenGLView.java

```
package com.example.assignment2;
```

```

import android.content.Context;
import android.opengl.GLSurfaceView;
import android.util.AttributeSet;

```

```

public class OpenGLView extends GLSurfaceView {
    public OpenGLView(Context context) {
        super(context);
        init();
    }

    public OpenGLView(Context context, AttributeSet attrs) {
        super(context, attrs);
        init();
    }

    private void init() {
        setEGLContextClientVersion(2);
        setPreserveEGLContextOnPause(true);
        setRenderer(new OpenGLRenderer());
    }
}

```

OpenGLRenderer.java

```

package com.example.assignment2;

```

```

import android.opengl.GLES20;
import android.opengl.GLSurfaceView;

```

```

import javax.microedition.khronos.egl.EGLConfig;
import javax.microedition.khronos.opengles.GL10;

```

```

public class OpenGLRenderer implements GLSurfaceView.Renderer {
    @Override
    public void onSurfaceCreated(GL10 gl, EGLConfig config) {
        GLES20.glClearColor(1f,1f,0.5f,0);
    }

    @Override
    public void onSurfaceChanged(GL10 gl, int width, int height) {
    }

    @Override
    public void onDrawFrame(GL10 gl) {
        GLES20.glClear(GLES20.GL_COLOR_BUFFER_BIT);
    }
}

```

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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=".MainActivity">
```

```

    <com.example.assignment2.OpenGLView
        android:id="@+id/openGLView"
        android:layout_width="match_parent"
        android:layout_height="match_parent"/>
```

```

    <EditText
        android:id="@+id/name"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Enter your name"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.702"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.087" />
```

```

    <TextView
        android:id="@+id/textView2"
        android:layout_width="50dp"
        android:layout_height="24dp"
        android:text="Name"
        android:textSize="18sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.116"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.101" />
```

```
<Button
android:id="@+id/clickme"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Click me"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.47"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
android:onClick="OnButtonClick"
app:layout_constraintVertical_bias="0.3" />
```

```
<Switch
android:id="@+id/switch1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Switch"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.419" />
```

```
<RatingBar
android:id="@+id/ratingBar"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.497"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.672" />
```

```
<SeekBar
android:id="@+id/seekBar2"
android:layout_width="311dp"
android:layout_height="26dp"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```



```
<ProgressBar
    android:id="@+id/progressBar2"
    style="?android:attr/progressBarStyleHorizontal"
    android:layout_width="307dp"
    android:layout_height="20dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.48"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.565" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity_main2.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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="com.example.assignment2.Main2Activity">
    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="51dp"
        android:textSize="35sp"
        android:text="This is new activity"
        android:layout_alignParentTop="true"
        android:layout_alignParentStart="true" />
    <TextView
        android:id="@+id/t1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="I am context menu"
        android:paddingBottom="30dp"
        android:textAllCaps="true"
        android:textSize="20sp"
        android:layout_marginTop="11dp"
        android:layout_below="@+id/textView"
        android:layout_centerHorizontal="true" />
```

```
<Button
    android:id="@+id/clickme"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="pop"
    android:text="I am Pop Menu"
    android:textAllCaps="true"
    android:layout_below="@+id/textView"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="68dp" />
</RelativeLayout>
```