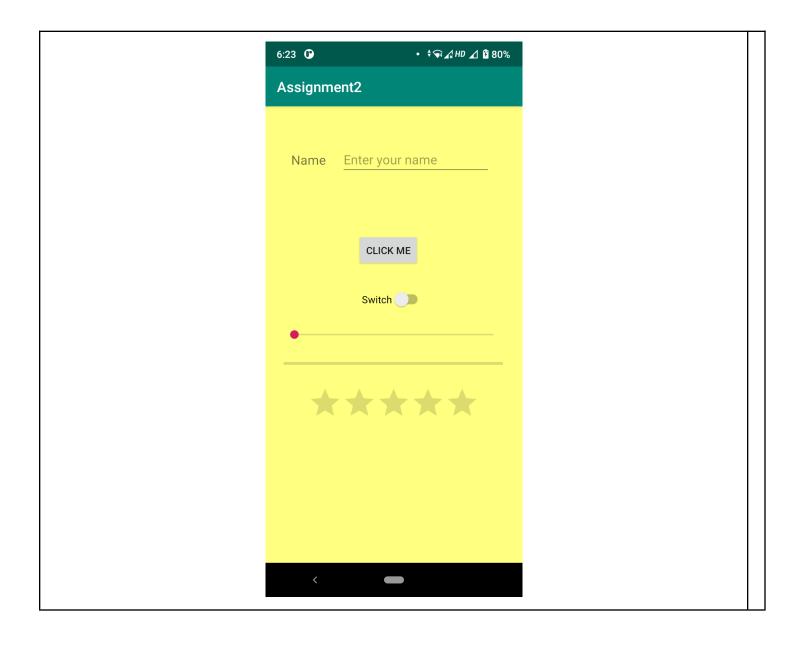
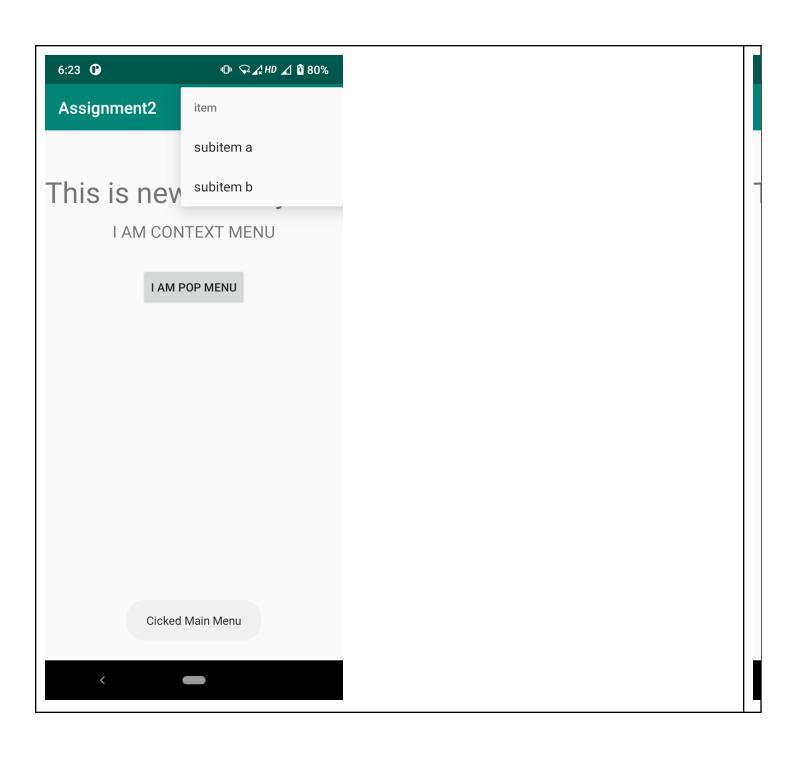
Assignment-2

Name	Manvi Pandya
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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 onContextItemSelected(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 onMenuItemClick(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</p> 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</p> 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"</p>
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>
```