**Program no: 7**

**Aim:** Design a simple Calculator using GridLayout and Cascaded LinearLayout

# XML Code:

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

<LinearLayout xmlns:android=["ht](http://schemas.android.com/apk/res/android)t[p://schemas.android.com/apk/res/android](http://schemas.android.com/apk/res/android)" xmlns:app=["ht](http://schemas.android.com/apk/res-auto)t[p://schemas.android.com/apk/res-auto](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:background="#323030"

android:layout\_gravity="bottom" android:gravity="bottom" android:orientation="vertical" tools:context=".MainActivity">

<LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:orientation="vertical">

<LinearLayout android:layout\_width="match\_parent"

android:layout\_height="wrap\_content" android:layout\_gravity="end" android:orientation="vertical">

<TextView android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_marginEnd="20dp" android:text="9+10" android:textAlignment="textEnd" android:textColor="@color/white" android:textSize="40dp" />

<TextView android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_marginEnd="20dp" android:text="=19" android:textAlignment="textEnd" android:textColor="@color/white" android:textSize="40dp" />

</LinearLayout>

<GridLayout android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:layout\_weight="1" android:columnCount="4" android:gravity="bottom" android:rowCount="4">

<Button

android:id="@+id/b9" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp"

android:background="@drawable/bg\_button" android:text="9" android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/b8" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"

android:layout\_margin="10dp" android:background="@drawable/bg\_button" android:text="8" android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/b7" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="@drawable/bg\_button" android:text="7" android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/bmult" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="#F86605" android:text="x"

android:textColor="@color/white" android:textSize="18dp" />

<Button

android:id="@+id/b6" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="@drawable/bg\_button" android:text="6" android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/b5" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="@drawable/bg\_button" android:text="5" android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/b4" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="@drawable/bg\_button" android:text="4" android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/bdiv" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="#F86605" android:text="/" android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/b3" android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="@drawable/bg\_button" android:text="3" android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/b2" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="@drawable/bg\_button" android:text="2" android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/b1" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="@drawable/bg\_button" android:text="1"

android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/bminus" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="#F86605" android:text="-" android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/b0" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="@drawable/bg\_button" android:text="0" android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/b." android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="@drawable/bg\_button" android:text="." android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/bequal" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_margin="10dp" android:background="@drawable/bg\_button" android:text="=" android:textColor="@color/white" android:textSize="25dp" />

<Button

android:id="@+id/bplus" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"

android:layout\_margin="10dp" android:background="#F86605" android:text="+" android:textColor="@color/white" android:textSize="25dp" />

</GridLayout>

</LinearLayout>

</LinearLayout>

# Java Code:

package com.example.myapplication;

import androidx.appcompat.app.AppCompatActivity;import android.os.Bundle;

public class MainActivity extends AppCompatActivity { @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); } }

# bg\_button.xml:

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

<shape xmlns:android=["http](http://schemas.android.com/apk/res/android):[//schemas.android.com/apk/res/android">](http://schemas.android.com/apk/res/android)

<corners android:radius="100dp"/>

</s

# Output:

