

Program No : 2

Aim : Design a simple Calculator using GridLayout and Cascaded LinearLayout

XML Code

```
<?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">

<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: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="5+5"
    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="10"
        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: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: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: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: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: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: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: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: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: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: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: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: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>
```

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

Java Code

```
package com.example.fb;

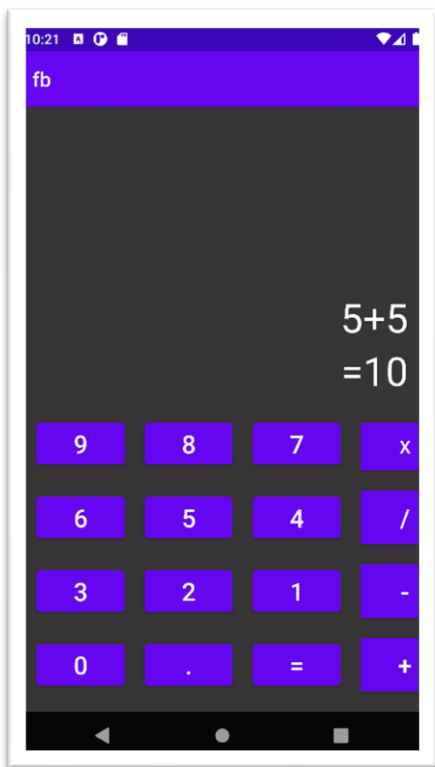
import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

Output



Program No : 3

Aim : Create a Facebook page using RelativeLayout; set properties using .xml file

XML Code

```
<?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:background="@color/white"
    tools:context=".MainActivity">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:background="#29487D"
        android:gravity="center|top"
        android:orientation="vertical">

        <LinearLayout
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginTop="70dp"
            android:layout_marginBottom="100dp"
            android:orientation="vertical">

            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:fontFamily="@font/fb"
                android:text="facebook"
                android:textSize="36dp"
                android:padding="10dp"
                android:textColor="@color/white" />

        </LinearLayout>
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="15dp"
        android:orientation="vertical"
        android:layout_margin="20dp">
        <EditText
            android:layout_width="match_parent"
```

```

    android:layout_height="wrap_content"
    android:hint="Email or Phone"
    android:layout_marginBottom="30dp"
    android:textColorHint="#594F4F"
    android:background="@drawable/bg_box"/>

```

```
<EditText
```

```

    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginBottom="30dp"
    android:background="@drawable/bg_box"
    android:hint="password"
    android:textColorHint="#594F4F"/>

```

```
<Button
```

```

    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Log In"
    android:background="@color/design_default_color_primary"
    android:textAllCaps="false"/>

```

```
</LinearLayout>
```

```
<LinearLayout
```

```

    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="180dp"
    android:layout_gravity="bottom"
    android:gravity="center">

```

```
<TextView
```

```

    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:gravity="end"
    android:textStyle="bold"
    android:textColor="@color/white"
    android:layout_marginRight="75dp"
    android:layout_weight="50"
    android:text="SignUp for Facebook"/>

```

```
<TextView
```

```

    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:gravity="end"
    android:textColor="@color/white"
    android:layout_marginEnd="50dp"
    android:layout_weight="1"
    android:textStyle="bold"
    android:text="?" />

```

```
</LinearLayout>
```

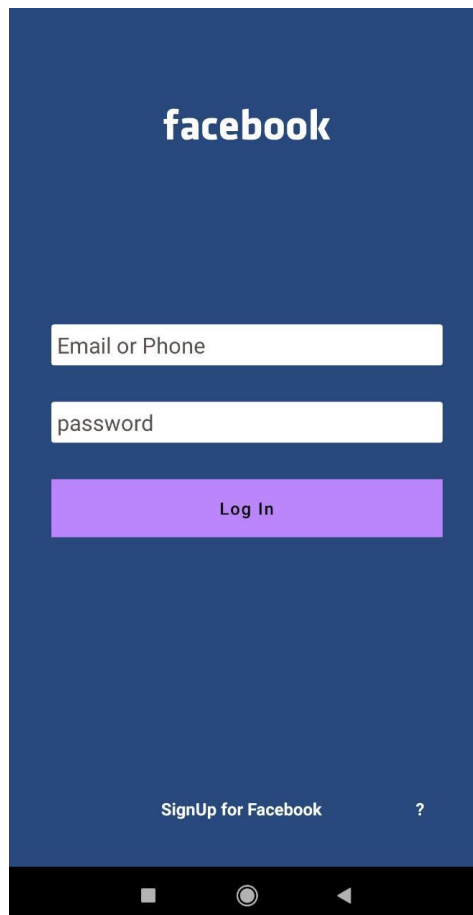


```
</LinearLayout>  
</LinearLayout>
```

Java Code

```
package com.example.calcrifla;  
  
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);  
    }  
}
```

Output



Program No : 4

Aim : Develop an application that toggles image using FrameLayout

XML Code

```
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout 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:layout_gravity="center"
    android:background="@color/teal_700"
    tools:context=".MainActivity">
    <ImageView
        android:id="@+id/image2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:src="@drawable/image2"
        android:visibility="gone"/>
    <ImageView
        android:id="@+id/image1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:src="@drawable/image1"/>
</FrameLayout>
```

Java Code

```
package com.example.frame;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.ImageView;

public class MainActivity extends AppCompatActivity implements View.OnClickListener {
    ImageView img1,img2;
```

```

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    img1 = findViewById(R.id.image1);
    img2 = findViewById(R.id.image2);
    img1.setOnClickListener(this);
    img2.setOnClickListener(this);
}

public void onClick(View v)
{
    int id=v.getId();
    switch (id){
        case R.id.image1:
            img1.setVisibility(View.GONE);
            img2.setVisibility(View.VISIBLE);
            break;
        case R.id.image2:
            img1.setVisibility(View.VISIBLE);
            img2.setVisibility(View.GONE);
            break;
    }
}
}

```

Output

