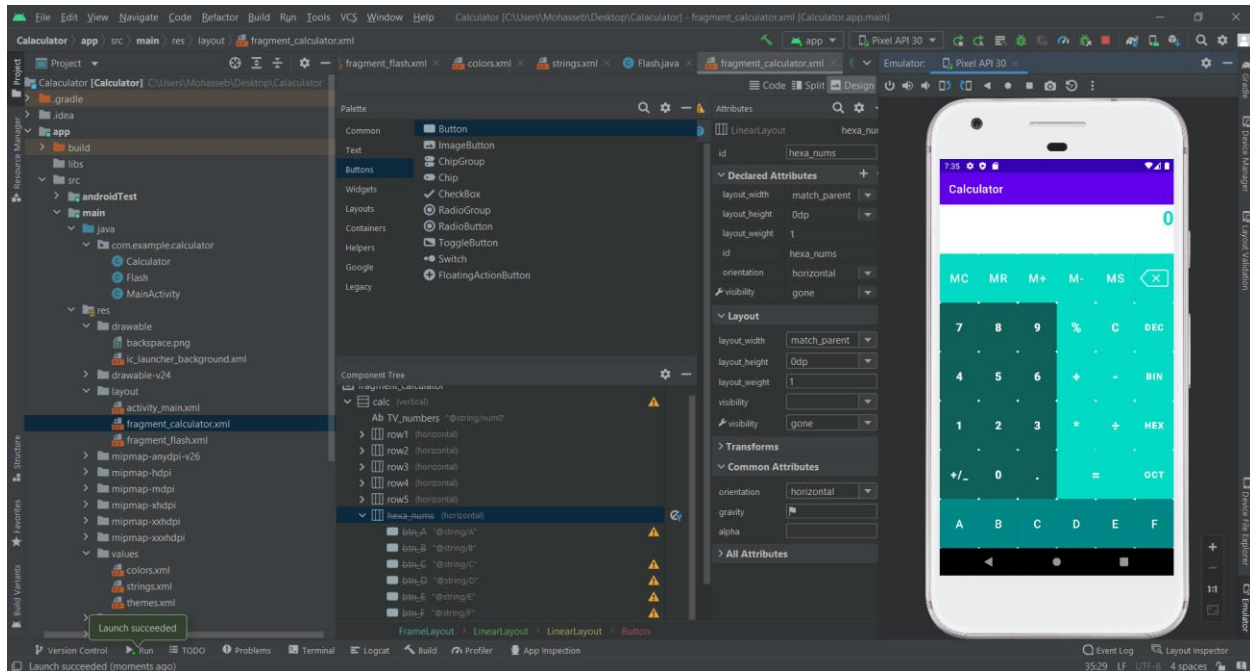


**Calculator Project**  
**Mahmoud Abdalla Mohasseb**  
**20P2787**

## Layout Screen:



## Main Activity:

```
<?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:orientation="vertical"
    tools:context=".MainActivity">

    <FrameLayout
        android:id="@+id/fragment_container"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:weightSum="7">

        </FrameLayout>
    </LinearLayout>
```

## Calculator Fragment:

```
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout 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:id="@+id/fragment_calculator"
    android:layout_width="match_parent"
    android:layout_height="match_parent"

    android:orientation="vertical"
    tools:context=".Calculator">

    <!-- TODO: Update blank fragment layout -->

    <LinearLayout
        android:id="@+id/calc"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical">

        <TextView
            android:id="@+id/TV_numbers"
            android:layout_width="match_parent"
            android:layout_height="0dp"
            android:layout_weight="1"
            android:paddingBottom="0dp"
            android:text="@string/num0"
            android:textAlignment="textEnd"
            android:textColor="@color/teal_200"
            android:textSize="34sp"
            android:textStyle="bold"
            tools:ignore="TextContrastCheck" />

        <LinearLayout
            android:id="@+id/row1"
            android:layout_width="match_parent"
            android:layout_height="0dp"
            android:layout_weight="1"
            android:orientation="horizontal">

            <Button
                android:id="@+id/btn_memRemove"
                android:layout_width="0dp"
                android:layout_height="match_parent"
                android:layout_weight="1"
                android:backgroundTint="@color/teal_200"
                android:insetTop="0dp"
                android:insetBottom="0dp"
                android:text="@string/memRemove"
                android:textSize="20sp"
                tools:ignore="TextContrastCheck" />

            <Button
                android:id="@+id/btn_memRecall"
                android:layout_width="0dp"
```

```
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/teal_200"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/memRecall"
        android:textSize="20sp"
        tools:ignore="TextContrastCheck" />
```

<Button

```
        android:id="@+id/btn_memPlus"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/teal_200"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/memPlus"
        android:textSize="20sp"
        tools:ignore="TextContrastCheck" />
```

<Button

```
        android:id="@+id/btn_memSubtract"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/teal_200"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/memSubtract"
        android:textSize="20sp"
        tools:ignore="TextContrastCheck" />
```

<Button

```
        android:id="@+id/btn_memStore"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/teal_200"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/memStore"
        android:textSize="20sp"
        tools:ignore="TextContrastCheck" />
```

<ImageButton

```
        android:id="@+id/btn_backSpace"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:background="@color/teal_200"
        android:contentDescription="@string/backSpace"
        android:cropToPadding="false"
        android:src="@drawable/backspace"
        android:visibility="visible"
        app:tint="@color/white"
        tools:ignore="ImageContrastCheck" />
```

```
</LinearLayout>
```

```
<LinearLayout
```

```
    android:id="@+id/row2"  
    android:layout_width="match_parent"  
    android:layout_height="0dp"  
    android:layout_weight="1"  
    android:orientation="horizontal">
```

```
<Button
```

```
    android:id="@+id/btn_num7"  
    android:layout_width="0dp"  
    android:layout_height="match_parent"  
    android:layout_weight="1"  
    android:backgroundTint="@color/gre"  
    android:insetTop="0dp"  
    android:insetBottom="0dp"  
    android:text="@string/num7"  
    android:textAlignment="center"  
    android:textSize="20sp"  
    android:textStyle="bold" />
```

```
<Button
```

```
    android:id="@+id/btn_num8"  
    style="?android:attr/buttonBarButtonStyle"  
    android:layout_width="0dp"  
    android:layout_height="match_parent"  
    android:layout_weight="1"  
    android:backgroundTint="@color/gre"  
    android:insetTop="0dp"  
    android:insetBottom="0dp"  
    android:text="@string/num8"  
    android:textAlignment="center"  
    android:textColor="@color/white"  
    android:textSize="20sp"  
    android:textStyle="bold" />
```

```
<Button
```

```
    android:id="@+id/btn_num9"  
    style="?android:attr/buttonBarButtonStyle"  
    android:layout_width="0dp"  
    android:layout_height="match_parent"  
    android:layout_weight="1"  
    android:backgroundTint="@color/gre"  
    android:insetTop="0dp"  
    android:insetBottom="0dp"  
    android:text="@string/num9"  
    android:textAlignment="center"  
    android:textColor="@color/white"  
    android:textSize="20sp"  
    android:textStyle="bold" />
```

```
<Button
```

```
    android:id="@+id/btn_mod"  
    android:layout_width="0dp"  
    android:layout_height="match_parent"
```

```

        android:layout_weight="1"
        android:backgroundTint="@color/teal_200"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/mod"
        android:textSize="24sp"
        android:textStyle="bold"
        tools:ignore="TextContrastCheck" />

<Button
    android:id="@+id/btn_removeAll"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:backgroundTint="@color/teal_200"
    android:insetTop="0dp"
    android:insetBottom="0dp"
    android:text="@string/removeAll"
    android:textSize="20sp"
    android:textStyle="bold"
    tools:ignore="DuplicateSpeakableTextCheck,TextContrastCheck"
/>

<Button
    android:id="@+id/btn_decimal"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:backgroundTint="@color/teal_200"
    android:insetTop="0dp"
    android:insetBottom="0dp"
    android:text="@string/decimal"
    android:textSize="16sp"
    android:textStyle="bold"
    tools:ignore="TextContrastCheck" />

</LinearLayout>

<LinearLayout
    android:id="@+id/row3"
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:orientation="horizontal">

    <Button
        android:id="@+id/btn_num4"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/gre"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/num4"
        android:textAlignment="center"
        android:textSize="20sp"
        android:textStyle="bold" />

```

```
<Button
    android:id="@+id/btn_num5"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:backgroundTint="@color/gre"
    android:insetTop="0dp"
    android:insetBottom="0dp"
    android:text="@string/num5"
    android:textAlignment="center"
    android:textSize="20sp"
    android:textStyle="bold" />

<Button
    android:id="@+id/btn_num6"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:backgroundTint="@color/gre"
    android:insetTop="0dp"
    android:insetBottom="0dp"
    android:text="@string/num6"
    android:textAlignment="center"
    android:textSize="20sp"
    android:textStyle="bold" />

<Button
    android:id="@+id/btn_sum"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:backgroundTint="@color/teal_200"
    android:insetTop="0dp"
    android:insetBottom="0dp"
    android:text="@string/sum"
    android:textSize="24sp"
    android:textStyle="bold" />

<Button
    android:id="@+id/btn_subtract"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:backgroundTint="@color/teal_200"
    android:insetTop="0dp"
    android:insetBottom="0dp"
    android:text="@string/subtract"
    android:textSize="24sp"
    android:textStyle="bold"
    tools:ignore="TextContrastCheck" />

<Button
    android:id="@+id/btn_binary"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
```

```

        android:backgroundTint="@color/teal_200"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/binary"
        android:textSize="16sp"
        android:textStyle="bold"
        tools:ignore="TextContrastCheck" />

</LinearLayout>

<LinearLayout
    android:id="@+id/row4"
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:orientation="horizontal">

    <Button
        android:id="@+id/btn_num1"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/gre"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/num1"
        android:textSize="20sp"
        android:textStyle="bold" />

    <Button
        android:id="@+id/btn_num2"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/gre"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/num2"
        android:textSize="20sp"
        android:textStyle="bold" />

    <Button
        android:id="@+id/btn_num3"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/gre"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/num3"
        android:textSize="20sp"
        android:textStyle="bold" />

    <Button
        android:id="@+id/btn_multiply"
        android:layout_width="0dp"
        android:layout_height="match_parent"

```



```

        android:layout_weight="1"
        android:backgroundTint="@color/teal_200"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/multiply"
        android:textSize="24sp"
        android:textStyle="bold" />

<Button
    android:id="@+id/btn_divide"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:backgroundTint="@color/teal_200"
    android:insetTop="0dp"
    android:insetBottom="0dp"
    android:text="@string/divide"
    android:textSize="24sp"
    android:textStyle="bold" />

<Button
    android:id="@+id/btn_hexa"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:backgroundTint="@color/teal_200"
    android:insetTop="0dp"
    android:insetBottom="0dp"
    android:text="@string/hexa"
    android:textSize="16sp"
    android:textStyle="bold" />
</LinearLayout>

<LinearLayout
    android:id="@+id/row5"
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:orientation="horizontal">

    <Button
        android:id="@+id/btn_plusNeg"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/gre"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/plusNega"
        android:textSize="20sp"
        android:textStyle="bold" />

    <Button
        android:id="@+id/btn_num0"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"

```

```

        android:backgroundTint="@color/gre"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/num0"
        android:textSize="20sp"
        android:textStyle="bold" />

<Button
    android:id="@+id/btn_float"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:backgroundTint="@color/gre"
    android:insetTop="0dp"
    android:insetBottom="0dp"
    android:text="@string/floatPoint"
    android:textSize="24sp"
    android:textStyle="bold" />

<Button
    android:id="@+id/btn_equal"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="2"
    android:backgroundTint="@color/teal_200"
    android:insetTop="0dp"
    android:insetBottom="0dp"
    android:text="@string/equal"
    android:textSize="24sp"
    android:textStyle="bold" />

<Button
    android:id="@+id/btn_octal"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:backgroundTint="@color/teal_200"
    android:insetTop="0dp"
    android:insetBottom="0dp"
    android:text="@string/octal"
    android:textSize="16sp"
    android:textStyle="bold" />
</LinearLayout>

<LinearLayout
    android:id="@+id/hexa_nums"
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:orientation="horizontal"
    tools:visibility="gone">

    <Button
        android:id="@+id/btn_A"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"

```

```
        android:backgroundTint="@color/teal_700"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/A"
        android:textSize="20sp" />
```

<Button

```
        android:id="@+id/btn_B"
        style="?android:attr/buttonBarButtonStyle"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/teal_700"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/B"
        android:textColor="@color/white"
        android:textSize="20sp" />
```

<Button

```
        android:id="@+id/btn_C"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/teal_700"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/C"
        android:textSize="20sp" />
```

<Button

```
        android:id="@+id/btn_D"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/teal_700"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/D"
        android:textSize="20sp" />
```

<Button

```
        android:id="@+id/btn_E"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:backgroundTint="@color/teal_700"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/E"
        android:textSize="20sp" />
```

<Button

```
        android:id="@+id/btn_F"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
```

```

        android:backgroundTint="@color/teal_700"
        android:insetTop="0dp"
        android:insetBottom="0dp"
        android:text="@string/F"
        android:textSize="20sp" />
    </LinearLayout>

</LinearLayout>

</FrameLayout>

```

## Flash Fragment(contains name and welcome message)

```

<?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:id="@+id/fragment_container"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#59AEF1"
    tools:context=".Flash">

    <TextView
        android:id="@+id/TV_welcome"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="150dp"
        android:text="@string/welcome"
        android:textAlignment="center"
        android:textColor="#000000"
        android:textSize="24sp"
        android:textStyle="bold" />

    <TextView
        android:id="@+id/TV_name"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="300dp"
        android:text="@string/name"
        android:textAlignment="center"
        android:textColor="#000000"
        android:textSize="24sp"
        android:textStyle="bold" />

</FrameLayout>

```

## Strings

```

<resources>
    <string name="app_name">Calculator</string>

```

```
<!-- TODO: Remove or change this placeholder text -->
<string name="hello_blank_fragment">Hello blank fragment</string>
<string name="welcome">Welcome to Calculator App</string>
<string name="name">Mahmoud Abdalla Mohasseb</string>
<string name="num0">0</string>
<string name="num1">1</string>
<string name="num2">2</string>
<string name="num3">3</string>
<string name="num4">4</string>
<string name="num5">5</string>
<string name="num6">6</string>
<string name="num7">7</string>
<string name="num8">8</string>
<string name="num9">9</string>
<string name="A">A</string>
<string name="B">B</string>
<string name="C">C</string>
<string name="D">D</string>
<string name="E">E</string>
<string name="F">F</string>
<string name="divide">÷</string>
<string name="multiply">×</string>
<string name="sum">+</string>
<string name="subtract">-</string>
<string name="equal">=</string>
<string name="mod">%</string>
<string name="memRemove">MC</string>
<string name="memRecall">MR</string>
<string name="memPlus">M+</string>
<string name="memSubtract">M-</string>
<string name="memStore">MS</string>
<string name="removeAll">C</string>
<string name="backSpace">Backspace</string>
<string name="decimal">Dec</string>
<string name="binary">Bin</string>
<string name="octal">Oct</string>
<string name="hexa">Hex</string>
<string name="plusNega">+/_</string>
<string name="floatPoint">.</string>
</resources>
```

## Colors:

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
  <color name="purple_200">#FFBB86FC</color>
  <color name="purple_500">#FF6200EE</color>
  <color name="purple_700">#FF3700B3</color>
  <color name="teal_200">#FF03DAC5</color>
  <color name="teal_700">#FF018786</color>
  <color name="black">#FF000000</color>
  <color name="white">#FFFFFFFF</color>
  <color name="gre">#0E6058</color>
</resources>
```