



Department of  
**Bachelor of Computer Applications**

**Android Operating System**  
Lab File – CA 05

**Subject Code:** 19BCA4C03L  
**Class:** II<sup>nd</sup> Year II<sup>nd</sup> Semester

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## Question 01 :

Program to change button and layout color, when clicked.

### Code :

activity\_main.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:id="@+id/rlVar1"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/tvVar1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="240dp"
        android:text="Hello"
        android:textSize="30dp"
        android:textStyle="bold" />

    <Button
        android:id="@+id/button"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/tvVar1"
        android:layout_marginTop="12dp"
        android:text="Click here to change button background color!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        tools:ignore="HardcodedText" />

    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/tvVar1"
        android:layout_centerInParent="true"
        android:layout_marginTop="60dp"
        android:orientation="horizontal"
        android:padding="10dp">

        <Button
            android:id="@+id/btVar2"
            android:layout_width="150dp"
            android:layout_height="wrap_content"
            android:padding="20dp"
            android:text="Warm"
            android:textSize="25dp"
            tools:layout_editor_absoluteX="268dp"
            tools:layout_editor_absoluteY="421dp" />

        <Button
            android:id="@+id/btVar1"
            android:layout_width="150dp"
            android:layout_height="wrap_content"
            android:padding="20dp"
            android:text="Cool"
            android:textSize="25dp"
            tools:layout_editor_absoluteX="76dp"
            tools:layout_editor_absoluteY="421dp" />

    </LinearLayout>
</RelativeLayout>
```

## MainActivity.java

```
package com.example.myapplication6_1;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RelativeLayout;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Button button1, button2;
        final RelativeLayout relativeLayout;

        button1 = findViewById(R.id.btVar1);
        button2 = findViewById(R.id.btVar2);
        relativeLayout = findViewById(R.id.rlVar1);

        button1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                relativeLayout.setBackgroundResource(R.color.cool);
            }
        });

        button2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                relativeLayout.setBackgroundResource(R.color.warm);
            }
        });

        final Button button = findViewById(R.id.button);
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                button.setBackgroundColor(getResources().getColor(R.color.green));
            }
        });
    }
}
```

## color.xml

```
<?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="colorPrimary">#6200EE</color>
    <color name="colorPrimaryDark">#3700B3</color>
    <color name="colorAccent">#03DAC5</color>
    <color name="green">#0F9D58</color>
    <color name="cool">#188FCF</color>
    <color name="warm">#F1D416</color>
</resources>
```

## AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.myapplication6_1">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.MyApplication6_1">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category
                    android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>
```

## Output :

