

Lab Exercise 07: Option Buttons

ActivityMain.java

```
package com.example.lab07;

import androidx.appcompat.app.AppCompatActivity;
import androidx.constraintlayout.widget.ConstraintLayout;

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

public class MainActivity extends AppCompatActivity {

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

        RadioButton red, green, blue;
        final ConstraintLayout layout;

        red = findViewById(R.id.redButton);
        green = findViewById(R.id.greenButton);
        blue = findViewById(R.id.blueButton);
        layout = findViewById(R.id.layout);

        red.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                layout.setBackgroundResource(R.color.red);
            }
        });

        green.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                layout.setBackgroundResource(R.color.green);
            }
        });

        blue.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                layout.setBackgroundResource(R.color.blue);
            }
        });
    }
}
```

strings.xml

```
<resources>
    <string name="app_name">Lab07</string>
    <string name="please_select_a_color">Please select a color</string>
    <string name="blue">Blue</string>
    <string name="green">Green</string>
    <string name="red">Red</string>
</resources>
```

activity_main.xml

```
<?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:id="@+id/layout"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="serif"
        android:text="@string/please_select_a_color"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.4" />

    <RadioGroup
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintStart_toStartOf="@+id/textView"
        app:layout_constraintTop_toBottomOf="@+id/textView">

        <RadioButton
            android:id="@+id/redButton"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="@string/red" />

        <RadioButton
            android:id="@+id/greenButton"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="@string/green" />

        <RadioButton
            android:id="@+id/blueButton"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="@string/blue" />

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

colors.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="red">#730517</color>
    <color name="green">#1e7069</color>
    <color name="blue">#3e9cbf</color>
</resources>
```

OUTPUT

