# 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

|  |  |  |
| --- | --- | --- |
| Graphical user interface, application  Description automatically generated | Treemap chart  Description automatically generated with medium confidence | Chart, treemap chart  Description automatically generated |