

```
package com.spisanie_emiter.otpornici;

import android.os.Bundle;
import android.app.Activity;
import android.content.Intent;
import android.view.KeyEvent;
import android.view.View;
import android.view.Window;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ImageView;
import android.widget.Spinner;
import android.widget.TextView;

public class Activity_FiveRingsCalculator extends Activity {

    Spinner spinner_firstRing;
    Spinner spinner_secondRing;
    Spinner spinner_thirdRing;
    Spinner spinner_fourthRing;
    Spinner spinner_fifthRing;

    ArrayAdapter<String> adapter_firstRing;
    ArrayAdapter<String> adapter_fourthRing;
```

```
ArrayAdapter<String> adapter_fifthRing;
```

```
ImageView imageView_firstRing;
```

```
ImageView imageView_secondRing;
```

```
ImageView imageView_thirdRing;
```

```
ImageView imageView_fourthRing;
```

```
ImageView imageView_fifthRing;
```

```
String[] colors_firstRing;
```

```
String[] colors_fourthRing;
```

```
String[] colors_fifthRing;
```

```
int[] colorPaths_firstRing;
```

```
int[] colorPaths_fourthRing;
```

```
int[] colorPaths_fifthRing;
```

```
@Override
```

```
protected void onCreate(Bundle savedInstanceState) {
```

```
    super.onCreate(savedInstanceState);
```

```
    requestWindowFeature(Window.FEATURE_NO_TITLE);
```

```
    setContentView(R.layout.activity_fiveringscalculator);
```

```
spinner_firstRing = (Spinner)findViewById(R.id.spinner_firstRing);  
spinner_secondRing = (Spinner)findViewById(R.id.spinner_secondRing);  
spinner_thirdRing = (Spinner)findViewById(R.id.spinner_thirdRing);  
spinner_fourthRing = (Spinner)findViewById(R.id.spinner_fourthRing);  
spinner_fifthRing = (Spinner)findViewById(R.id.spinner_fifthRing);
```

```
imageView_firstRing = (ImageView)findViewById(R.id.imageView_firstRing);  
imageView_secondRing = (ImageView)findViewById(R.id.imageView_secondRing);  
imageView_thirdRing = (ImageView)findViewById(R.id.imageView_thirdRing);  
imageView_fourthRing = (ImageView)findViewById(R.id.imageView_fourthRing);  
imageView_fifthRing = (ImageView)findViewById(R.id.imageView_fifthRing);
```

```
colors_firstRing = new String[10]; // same colors will be used for the second ring  
colors_fourthRing = new String[12];  
colors_fifthRing = new String[8];
```

```
colorPaths_firstRing = new int[10];  
colorPaths_fourthRing = new int[12];  
colorPaths_fifthRing = new int[8];
```

```
colors_firstRing[0]="Црна";  
colors_firstRing[1]="Кафена";
```

```
colors_firstRing[2]="Црвена";  
colors_firstRing[3]="Портокалова";  
colors_firstRing[4]="Жолта";  
colors_firstRing[5]="Зелена";  
colors_firstRing[6]="Сина";  
colors_firstRing[7]="Виолетова";  
colors_firstRing[8]="Сива";  
colors_firstRing[9]="Бела";
```

```
colors_fourthRing[0]="Црна";  
colors_fourthRing[1]="Кафена";  
colors_fourthRing[2]="Црвена";  
colors_fourthRing[3]="Портокалова";  
colors_fourthRing[4]="Жолта";  
colors_fourthRing[5]="Зелена";  
colors_fourthRing[6]="Сина";  
colors_fourthRing[7]="Виолетова";  
colors_fourthRing[8]="Сива";  
colors_fourthRing[9]="Бела";  
colors_fourthRing[10]="Златна";  
colors_fourthRing[11]="Сребрена";
```

```
colors_fifthRing[0] = "Кафена";  
colors_fifthRing[1] = "Црвена";  
colors_fifthRing[2] = "Зелена";
```

```
colors_fifthRing[3] = "Сина";  
colors_fifthRing[4] = "Виолетова";  
colors_fifthRing[5] = "Златна";  
colors_fifthRing[6] = "Сребрена";  
colors_fifthRing[7] = "Без боја";
```

```
colorPaths_firstRing[0]=R.drawable.r_black;  
colorPaths_firstRing[1]=R.drawable.r_brown;  
colorPaths_firstRing[2]=R.drawable.r_red;  
colorPaths_firstRing[3]=R.drawable.r_orange;  
colorPaths_firstRing[4]=R.drawable.r_yellow;  
colorPaths_firstRing[5]=R.drawable.r_green;  
colorPaths_firstRing[6]=R.drawable.r_blue;  
colorPaths_firstRing[7]=R.drawable.r_violet;  
colorPaths_firstRing[8]=R.drawable.r_gray;  
colorPaths_firstRing[9]=R.drawable.r_white;
```

```
colorPaths_fourthRing[0]=R.drawable.r_black;  
colorPaths_fourthRing[1]=R.drawable.r_brown;  
colorPaths_fourthRing[2]=R.drawable.r_red;  
colorPaths_fourthRing[3]=R.drawable.r_orange;  
colorPaths_fourthRing[4]=R.drawable.r_yellow;  
colorPaths_fourthRing[5]=R.drawable.r_green;  
colorPaths_fourthRing[6]=R.drawable.r_blue;  
colorPaths_fourthRing[7]=R.drawable.r_violet;
```

```
colorPaths_fourthRing[8]=R.drawable.r_gray;  
colorPaths_fourthRing[9]=R.drawable.r_white;  
colorPaths_fourthRing[10]=R.drawable.r_gold;  
colorPaths_fourthRing[11]=R.drawable.r_silver;
```

```
colorPaths_fifthRing[0] = R.drawable.r_brown;  
colorPaths_fifthRing[1] = R.drawable.r_red;  
colorPaths_fifthRing[2] = R.drawable.r_green;  
colorPaths_fifthRing[3] = R.drawable.r_blue;  
colorPaths_fifthRing[4] = R.drawable.r_violet;  
colorPaths_fifthRing[5] = R.drawable.r_gold;  
colorPaths_fifthRing[6] = R.drawable.r_silver;  
colorPaths_fifthRing[7] = R.drawable.r_none;
```

```
adapter_firstRing = new  
ArrayAdapter<String>(this,android.R.layout.simple_spinner_item,colors_firstRing); // same adapter will  
be used for the second ring
```

```
adapter_fourthRing = new  
ArrayAdapter<String>(this,android.R.layout.simple_spinner_item,colors_fourthRing);
```

```
adapter_fifthRing = new  
ArrayAdapter<String>(this,android.R.layout.simple_spinner_item,colors_fifthRing);
```

```
spinner_firstRing.setAdapter(adapter_firstRing);  
spinner_secondRing.setAdapter(adapter_firstRing);  
spinner_thirdRing.setAdapter(adapter_firstRing);  
spinner_fourthRing.setAdapter(adapter_fourthRing);  
spinner_fifthRing.setAdapter(adapter_fifthRing);
```

```

spinner_firstRing.setOnItemSelectedListener(new OnItemSelectedListener() {

    @Override

    public void onItemSelected(AdapterView<?> arg0, View arg1,

        int arg2, long arg3) {

        // TODO Auto-generated method stub

        imageView_firstRing.setImageDrawable(getResources().getDrawable(colorPaths_firstRing[(int)s
pinner_firstRing.getSelectedItemId()]));

        CalculateResistance();

    }

    @Override

    public void onNothingSelected(AdapterView<?> arg0) {

        // TODO Auto-generated method stub

    }

});

spinner_secondRing.setOnItemSelectedListener(new OnItemSelectedListener() {

    @Override

    public void onItemSelected(AdapterView<?> arg0, View arg1,

        int arg2, long arg3) {

        // TODO Auto-generated method stub

```

```
imageView_secondRing.setImageDrawable(getResources().getDrawable(colorPaths_firstRing[(int)spinner_secondRing.getSelectedItemId()]));
```

```
    CalculateResistance();
```

```
}
```

```
@Override
```

```
public void onNothingSelected(AdapterView<?> arg0) {
```

```
    // TODO Auto-generated method stub
```

```
}
```

```
});
```

```
spinner_thirdRing.setOnItemSelectedListener(new OnItemSelectedListener() {
```

```
    @Override
```

```
public void onItemSelected(AdapterView<?> arg0, View arg1,
```

```
    int arg2, long arg3) {
```

```
    // TODO Auto-generated method stub
```

```
imageView_thirdRing.setImageDrawable(getResources().getDrawable(colorPaths_firstRing[(int)spinner_thirdRing.getSelectedItemId()]));
```

```
    CalculateResistance();
```

```
}
```

```
@Override
```

```
public void onNothingSelected(AdapterView<?> arg0) {
```



```

        // TODO Auto-generated method stub

    }

});

spinner_fourthRing.setOnItemSelectedListener(new OnItemSelectedListener() {

    @Override

    public void onItemSelected(AdapterView<?> arg0, View arg1,

        int arg2, long arg3) {

        // TODO Auto-generated method stub

        imageView_fourthRing.setImageDrawable(getResources().getDrawable(colorPaths_fourthRing[(i
nt)spinner_fourthRing.getSelectedItemId()]));

        CalculateResistance();

    }

    @Override

    public void onNothingSelected(AdapterView<?> arg0) {

        // TODO Auto-generated method stub

    }

});

spinner_fifthRing.setOnItemSelectedListener(new OnItemSelectedListener() {

    @Override

```

```

        public void onItemSelected(AdapterView<?> arg0, View arg1,
            int arg2, long arg3) {
            // TODO Auto-generated method stub

            imageView_fifthRing.setImageDrawable(getResources().getDrawable(colorPaths_fifthRing[(int)s
            pinner_fifthRing.getSelectedItemId()]));

            CalculateResistance();
        }

        @Override
        public void onNothingSelected(AdapterView<?> arg0) {
            // TODO Auto-generated method stub

        }
    });
}

```

```

public void CalculateResistance()
{
    int firstDigit = (int) spinner_firstRing.getSelectedItemId();
    int secondDigit = (int) spinner_secondRing.getSelectedItemId();
    int thirdDigit = (int) spinner_thirdRing.getSelectedItemId();
    double fourthValue = (double) spinner_fourthRing.getSelectedItemId();
    int fifthValue = (int) spinner_fifthRing.getSelectedItemId();
}

```

```
// bof tolerance determination
String tolerance=(char)177+"20%";

switch (fifthValue) {
case 0:
{
    tolerance = (char)177+"1%";
    break;
}
case 1:
{
    tolerance = (char)177+"2%";
    break;
}
case 2:
{
    tolerance = (char)177+"0,5%";
    break;
}
case 3:
{
    tolerance = (char)177+"0,25%";
    break;
}
}
```

```
case 4:
{
    tolerance = (char)177+"0,1%";
    break;
}
case 5:
{
    tolerance = (char)177+"5%";
    break;
}
case 6:
{
    tolerance = (char)177+"10%";
    break;
}
case 7:
{
    tolerance = (char)177+"20%";
    break;
}

default:
    break;
}

// eof tolerance determination
```

```
String unit = " [Оми], ";
```

```
// low values
```

```
if (fourthValue ==10)
```

```
{
```

```
    fourthValue = 0.1;
```

```
}
```

```
else if(fourthValue==11)
```

```
{
```

```
    fourthValue = 0.01;
```

```
}
```

```
else
```

```
{
```

```
    fourthValue =(double) Math.pow(10, fourthValue);
```

```
}
```

```
double firstThreeDigits =  
Integer.parseInt(String.valueOf(firstDigit)+String.valueOf(secondDigit)+String.valueOf(thirdDigit));
```

```
double FinalValue = firstThreeDigits * fourthValue;
```

```
// bof unit determination
```

```
if (FinalValue > 1000000)
```

```
{  
    FinalValue = FinalValue/1000000;  
    unit = " [Мега Оми], ";  
}  
  
else if(FinalValue>1000)  
{  
    FinalValue = FinalValue/1000;  
    unit = " [Кило Оми], ";  
}  
// eof unit determination  
  
String result="";  
  
// bof decimal places determination  
// if (FinalValue>10)  
// {  
//     result = String.format("%.0f", FinalValue)+unit+tolerance;  
// }  
// else if (FinalValue<10 && FinalValue>1)  
// {  
//     result = String.format("%.1f", FinalValue)+unit+tolerance;  
// }  
// else  
// {
```

```
        result = String.format("%.2f", FinalValue)+unit+tolerance;
    }
    // eof decimal places determination

    TextView textView_result = (TextView)findViewById(R.id.textView_result);
    textView_result.setText(result);
}

@Override
public boolean onKeyDown(int keyCode, KeyEvent event)
{
    if ((keyCode == KeyEvent.KEYCODE_BACK))
    {
        Intent startUpIntent = new Intent(this,Activity_Start.class);
        startActivity(startUpIntent);

        finish();
    }
    return super.onKeyDown(keyCode, event);
}
}
```