

# Dokumentacja pracy “Ćwiczenie 5.0 - Inicjały”

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### Klasa: 4F

### Nazwa przedmiotu: P5\_MOB

Zrzuty ekranu:

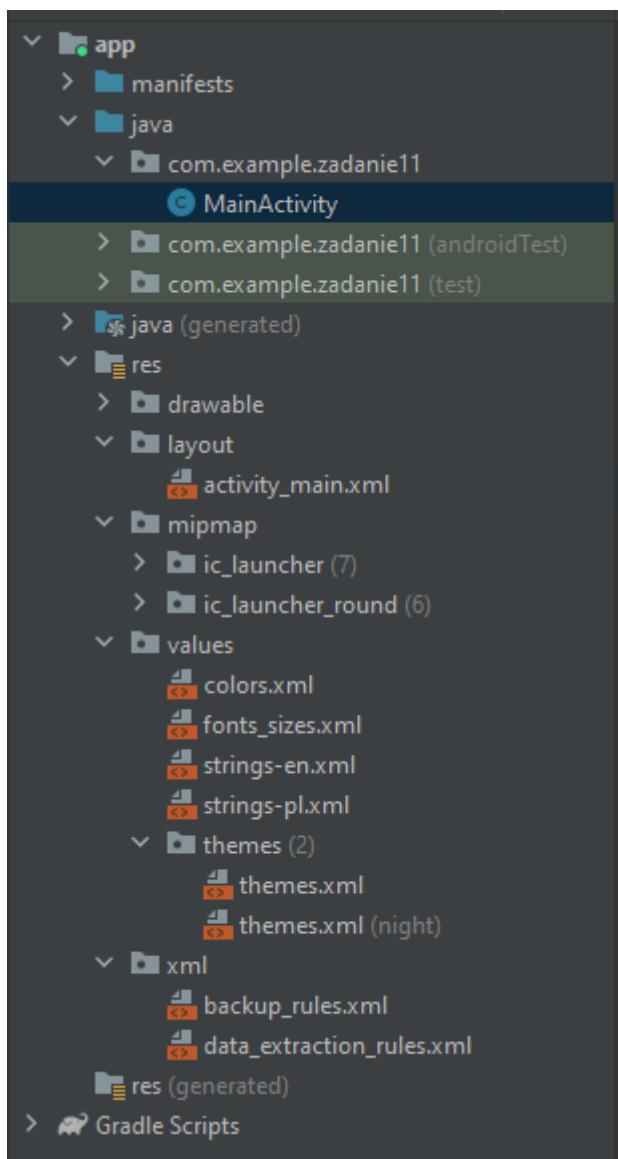
The screenshot shows the Android Studio interface. On the left is the Project structure, with the app module selected. In the center is the code editor for MainActivity.java. The code retrieves the device's locale and language, then sets up a TextView to display a welcome message in Polish or English. It also retrieves display metrics to determine orientation and creates two TextViews to show orientation and a random number. On the right, a virtual device named "Pixel 2 API 26" is running, displaying the application's UI with the text "Exercise 5.0 - Initials" and "Welcome! Orientation Portrait Random number 1". The bottom status bar shows the date as 18.09.2023.

```
public class MainActivity extends AppCompatActivity {  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
  
        Locale deviceLocale = Locale.getDefault();  
  
        boolean lang = deviceLocale.getLanguage().equals("pl");  
  
        Resources res = getResources();  
  
        TextView welcomeTextView = findViewById(R.id.welcomeTextView);  
        welcomeTextView.setText(lang ? "Dzień dobry Polsko!" : "Welcome!");  
  
        DisplayMetrics displayMetrics = new DisplayMetrics();  
        getWindowManager().getDefaultDisplay().getMetrics(displayMetrics);  
  
        int widthPixels = displayMetrics.widthPixels;  
        int heightPixels = displayMetrics.heightPixels;  
  
        String orientation = "";  
  
        if (widthPixels < heightPixels) {  
            orientation = res.getString(lang ? "Pionowo" : "Portrait");  
        } else {  
            orientation = res.getString(lang ? "Poziomo" : "Landscape");  
        }  
  
        TextView orientationTextView = findViewById(R.id.orientationTextView);  
        orientationTextView.setText(res.getString(lang ? "Orientacja" : "Orientation"));  
  
        TextView randomNumberTextView = findViewById(R.id.randomNumberTextView);  
        int randomNum = (int) (Math.random() * 9) + 1;  
        randomNumberTextView.setText(res.getString(lang ? "Losowa liczba" : "Random number"));  
  
        TextView nameTextView = findViewById(R.id.nameTextView);  
        nameTextView.setText(res.getString(lang ? "Ćwiczenie 5.0 - Inicjały" : "Exercise 5.0 - Initials"));  
    }  
}
```

This screenshot shows the same setup as the previous one, but the application's UI has changed. The virtual device now displays "Dzień dobry Pionko! Orientacja Pionowa Losowa liczba 2" and "Ćwiczenie 5.0 - Inicjały". The bottom status bar shows the date as 18.09.2023.

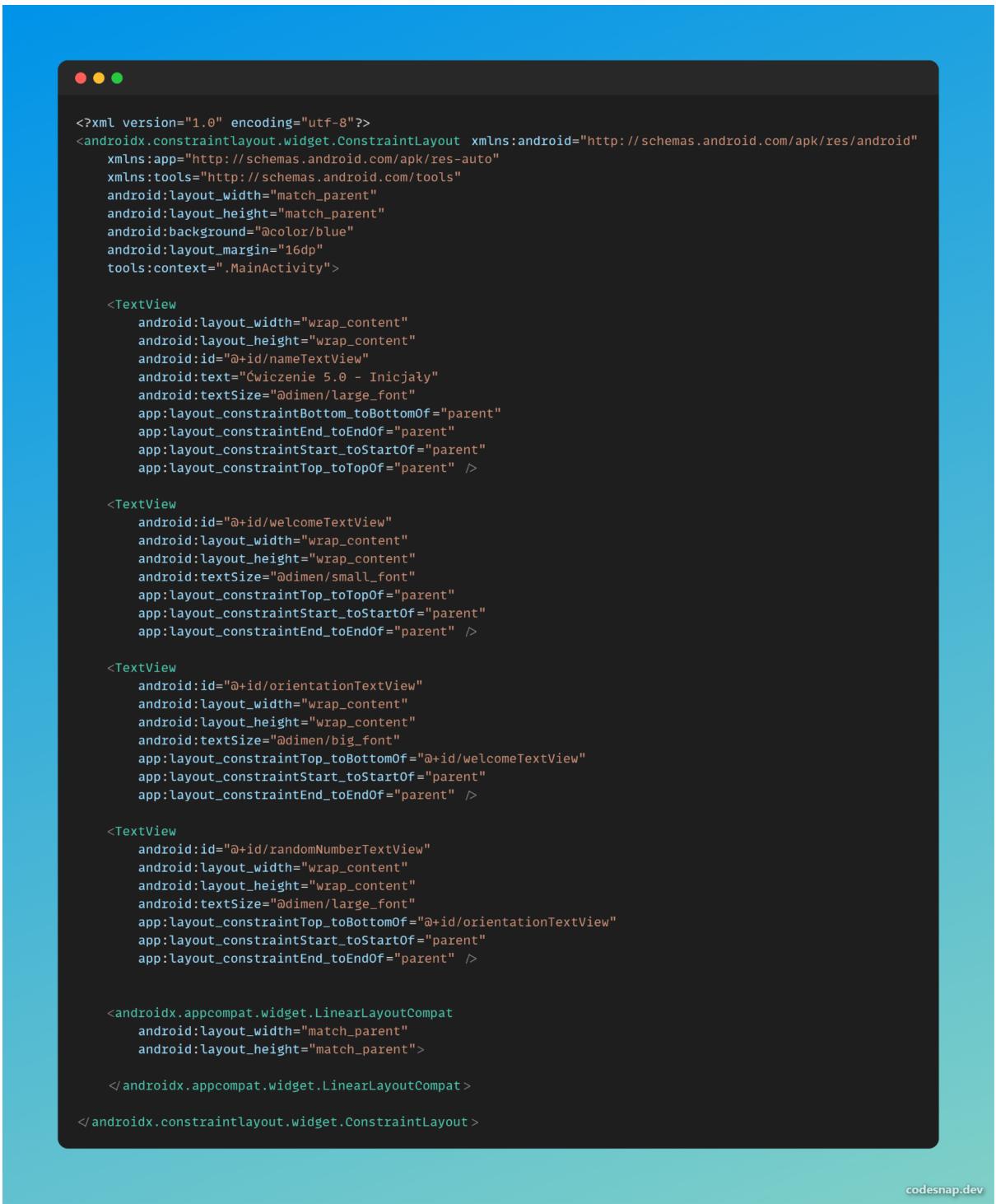
```
int widthPixels = displayMetrics.widthPixels;  
int heightPixels = displayMetrics.heightPixels;  
  
String orientation = "";  
  
if (widthPixels < heightPixels) {  
    orientation = res.getString(lang ? "Pionowo" : "Portrait");  
} else {  
    orientation = res.getString(lang ? "Poziomo" : "Landscape");  
}  
  
TextView orientationTextView = findViewById(R.id.orientationTextView);  
orientationTextView.setText(res.getString(lang ? "Orientacja" : "Orientation"));  
  
TextView randomNumberTextView = findViewById(R.id.randomNumberTextView);  
int randomNum = (int) (Math.random() * 9) + 1;  
randomNumberTextView.setText(res.getString(lang ? "Losowa liczba" : "Random number"));  
  
TextView nameTextView = findViewById(R.id.nameTextView);  
nameTextView.setText(res.getString(lang ? "Ćwiczenie 5.0 - Inicjały" : "Exercise 5.0 - Initials"));  
}
```

## Pliki:



## Pliki xml:

- 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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/blue"
    android:layout_margin="16dp"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/nameTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Ćwiczenie 5.0 - Inicjaly"
        android:textSize="@dimen/large_font"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/welcomeTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="@dimen/small_font"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent" />

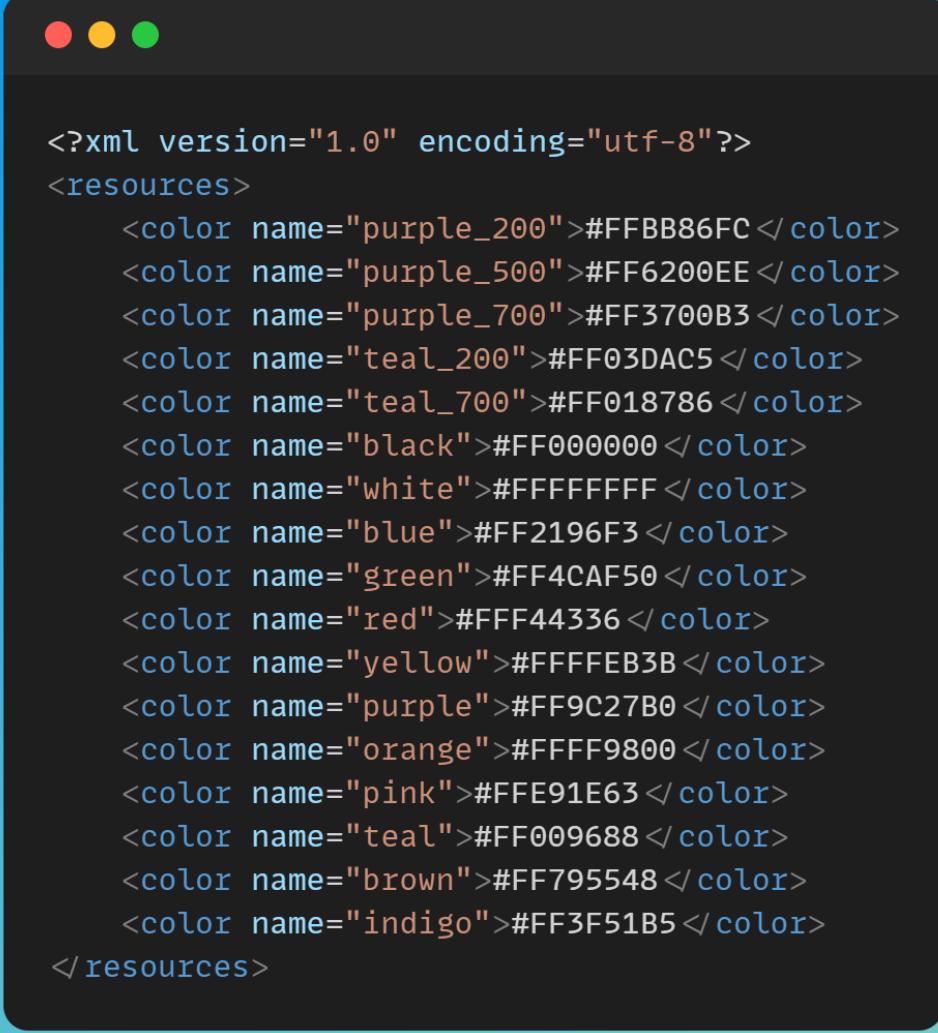
    <TextView
        android:id="@+id/orientationTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="@dimen/big_font"
        app:layout_constraintTop_toBottomOf="@+id/welcomeTextView"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent" />

    <TextView
        android:id="@+id/randomNumberTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="@dimen/large_font"
        app:layout_constraintTop_toBottomOf="@+id/orientationTextView"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent" />

    <androidx.appcompat.widget.LinearLayoutCompat
        android:layout_width="match_parent"
        android:layout_height="match_parent">

        </androidx.appcompat.widget.LinearLayoutCompat>
    </androidx.constraintlayout.widget.ConstraintLayout>
```

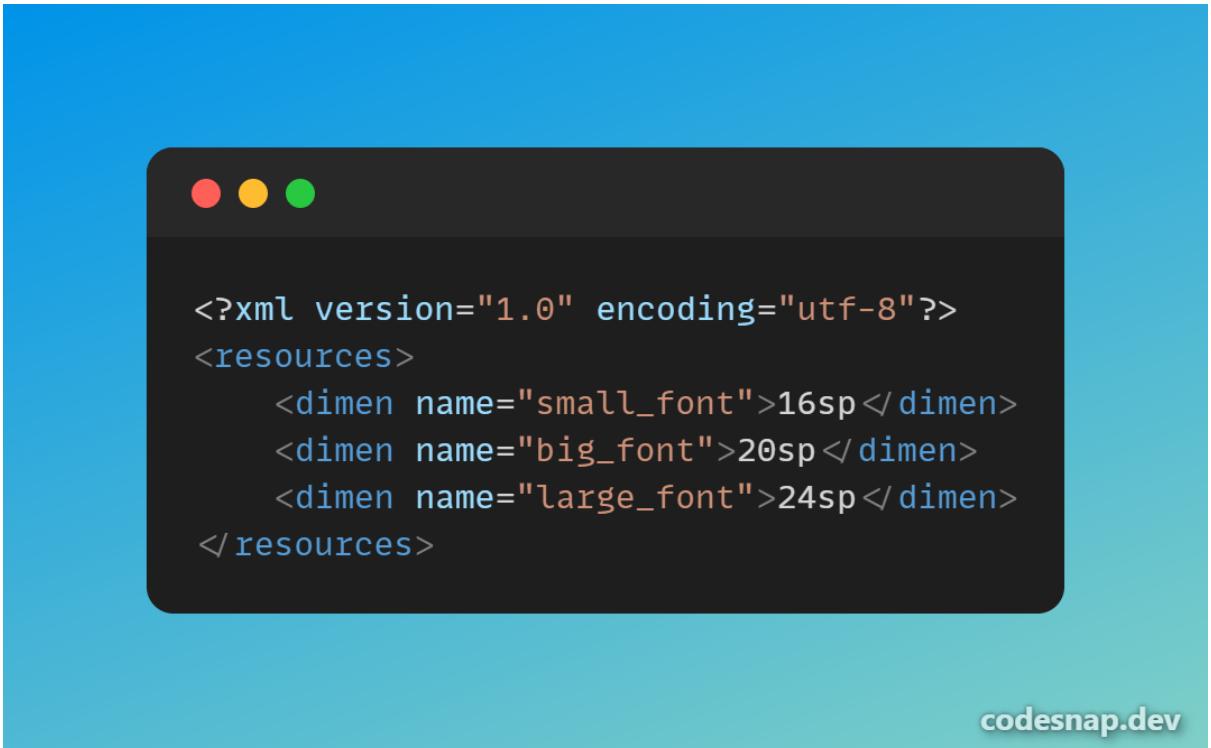
- colors.xml



```
<?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">#FFFFFF</color>
    <color name="blue">#FF2196F3</color>
    <color name="green">#FF4CAF50</color>
    <color name="red">#FFF44336</color>
    <color name="yellow">#FFFFEB3B</color>
    <color name="purple">#FF9C27B0</color>
    <color name="orange">#FFFF9800</color>
    <color name="pink">#FFE91E63</color>
    <color name="teal">#FF009688</color>
    <color name="brown">#FF795548</color>
    <color name="indigo">#FF3F51B5</color>
</resources>
```

codesnap.dev

- font\_sizes.xml

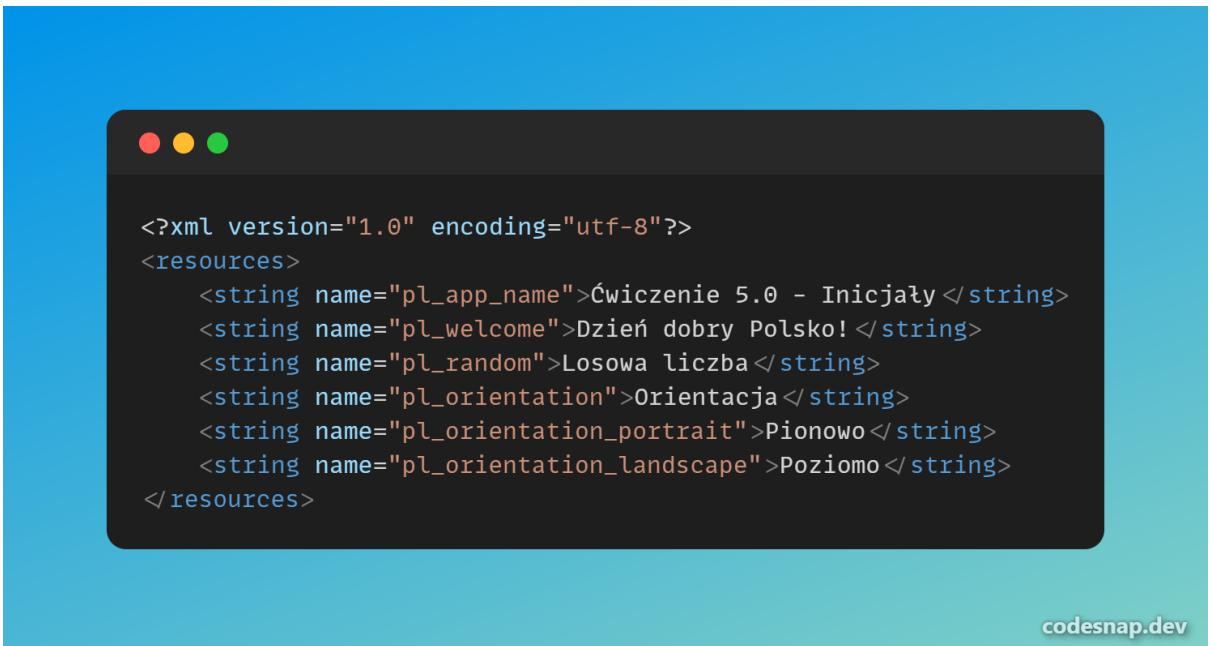


A screenshot of an Android application window. The title bar is dark with three colored dots (red, yellow, green) in the top right corner. The main content area displays the following XML code:

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <dimen name="small_font">16sp</dimen>
    <dimen name="big_font">20sp</dimen>
    <dimen name="large_font">24sp</dimen>
</resources>
```

The code defines three dimension resources: small\_font (16sp), big\_font (20sp), and large\_font (24sp). The watermark "codesnap.dev" is visible in the bottom right corner of the screenshot.

- strings-pl.xml

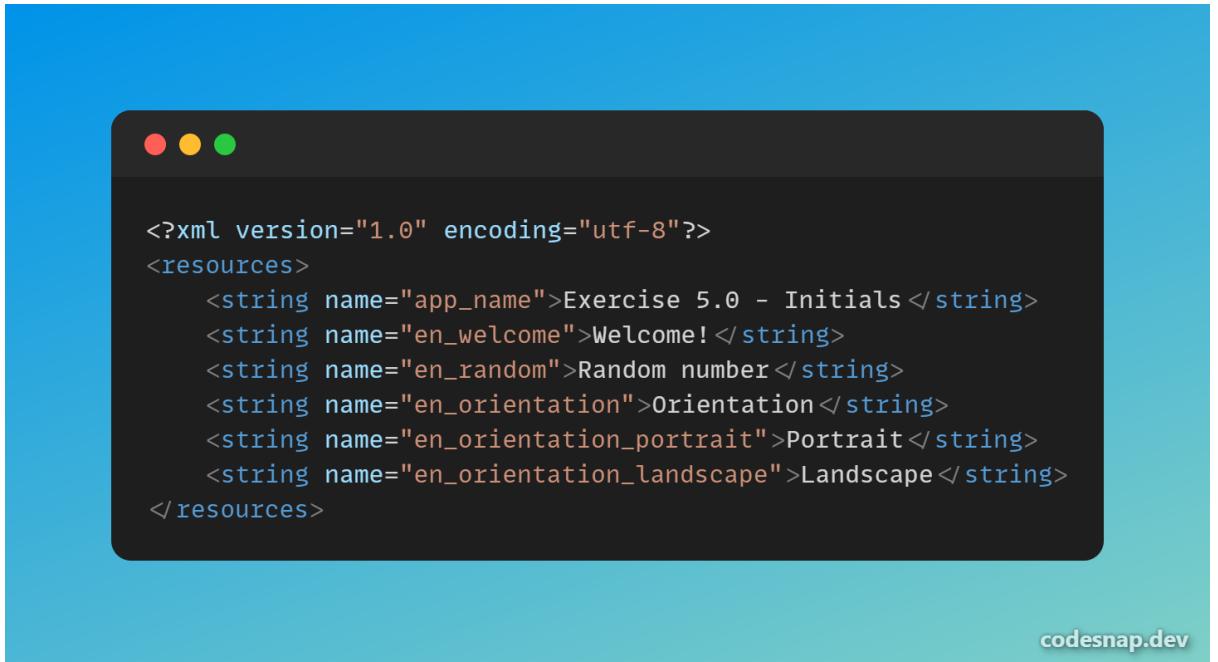


A screenshot of an Android application window. The title bar is dark with three colored dots (red, yellow, green) in the top right corner. The main content area displays the following XML code:

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <string name="pl_app_name">Ćwiczenie 5.0 - Inicjały</string>
    <string name="pl_welcome">Dzień dobry Polsko!</string>
    <string name="pl_random">Losowa liczba</string>
    <string name="pl_orientation">Orientacja</string>
    <string name="pl_orientation_portrait">Pionowo</string>
    <string name="pl_orientation_landscape">Poziomo</string>
</resources>
```

The code defines six string resources in Polish: pl\_app\_name (Ćwiczenie 5.0 - Inicjały), pl\_welcome (Dzień dobry Polsko!), pl\_random (Losowa liczba), pl\_orientation (Orientacja), pl\_orientation\_portrait (Pionowo), and pl\_orientation\_landscape (Poziomo). The watermark "codesnap.dev" is visible in the bottom right corner of the screenshot.

- strings-en.xml



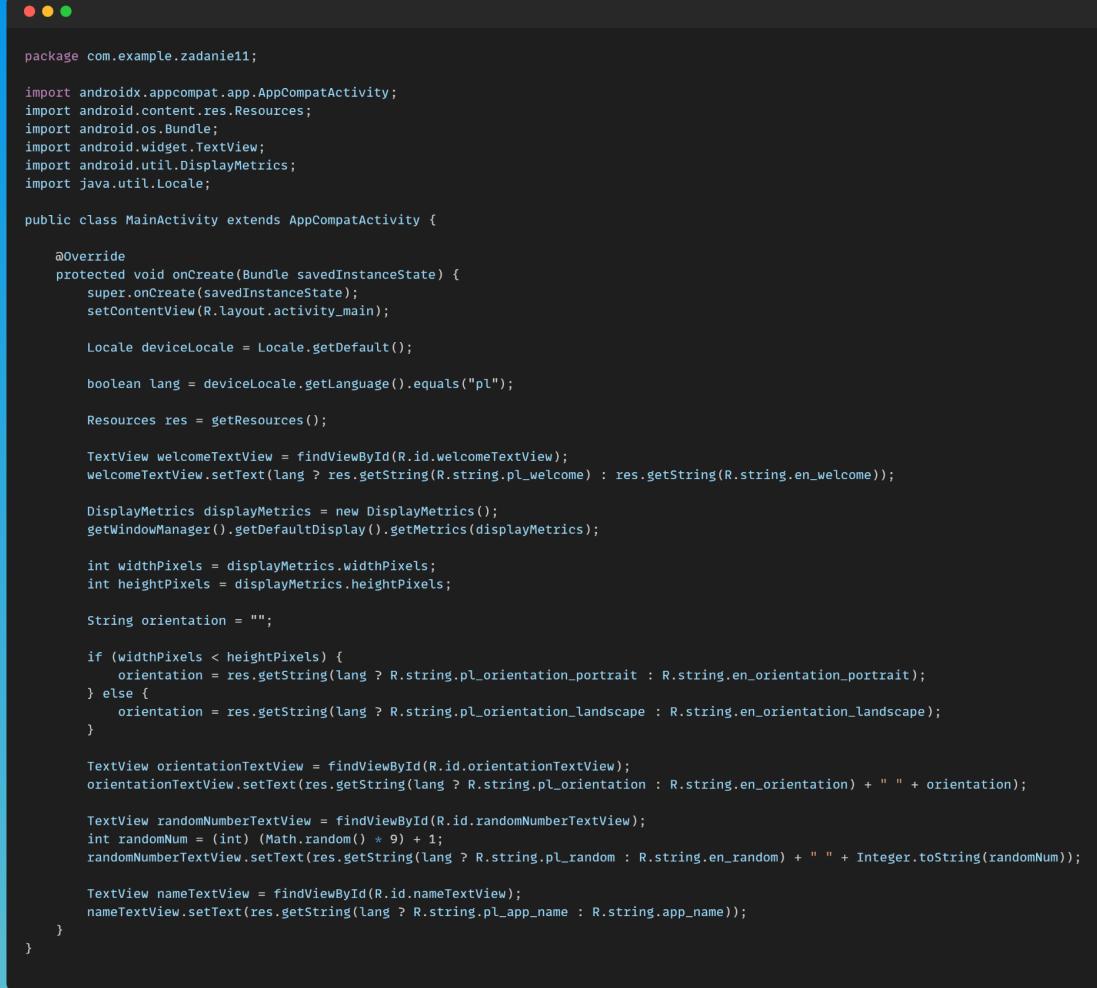
A screenshot of a Mac OS X application window titled "strings-en.xml". The window contains the following XML code:

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <string name="app_name">Exercise 5.0 - Initials</string>
    <string name="en_welcome">Welcome!</string>
    <string name="en_random">Random number</string>
    <string name="en_orientation">Orientation</string>
    <string name="en_orientation_portrait">Portrait</string>
    <string name="en_orientation_landscape">Landscape</string>
</resources>
```

The window has a dark theme with red, yellow, and green close buttons at the top. The bottom right corner of the window frame contains the text "codesnap.dev".

## Kod Java:

- MainActivity.java



The screenshot shows a Java code editor window with a dark theme. The code is written in Java and handles locale detection and resource switching based on the device's language. It includes logic for orientation and random number generation.

```
package com.example.zadanie11;

import androidx.appcompat.app.AppCompatActivity;
import android.content.res.Resources;
import android.os.Bundle;
import android.widget.TextView;
import android.util.DisplayMetrics;
import java.util.Locale;

public class MainActivity extends AppCompatActivity {

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

        Locale deviceLocale = Locale.getDefault();

        boolean lang = deviceLocale.getLanguage().equals("pl");

        Resources res = getResources();

        TextView welcomeTextView = findViewById(R.id.welcomeTextView);
        welcomeTextView.setText(lang ? res.getString(R.string.pl_welcome) : res.getString(R.string.en_welcome));

        DisplayMetrics displayMetrics = new DisplayMetrics();
        getWindowManager().getDefaultDisplay().getMetrics(displayMetrics);

        int widthPixels = displayMetrics.widthPixels;
        int heightPixels = displayMetrics.heightPixels;

        String orientation = "";

        if (widthPixels < heightPixels) {
            orientation = res.getString(lang ? R.string.pl_orientation_portrait : R.string.en_orientation_portrait);
        } else {
            orientation = res.getString(lang ? R.string.pl_orientation_landscape : R.string.en_orientation_landscape);
        }

        TextView orientationTextView = findViewById(R.id.orientationTextView);
        orientationTextView.setText(res.getString(lang ? R.string.pl_orientation : R.string.en_orientation) + " " + orientation);

        TextView randomNumberTextView = findViewById(R.id.randomNumberTextView);
        int randomNum = (int) (Math.random() * 9) + 1;
        randomNumberTextView.setText(res.getString(lang ? R.string.pl_random : R.string.en_random) + " " + Integer.toString(randomNum));

        TextView nameTextView = findViewById(R.id.nameTextView);
        nameTextView.setText(res.getString(lang ? R.string.pl_app_name : R.string.app_name));
    }
}
```

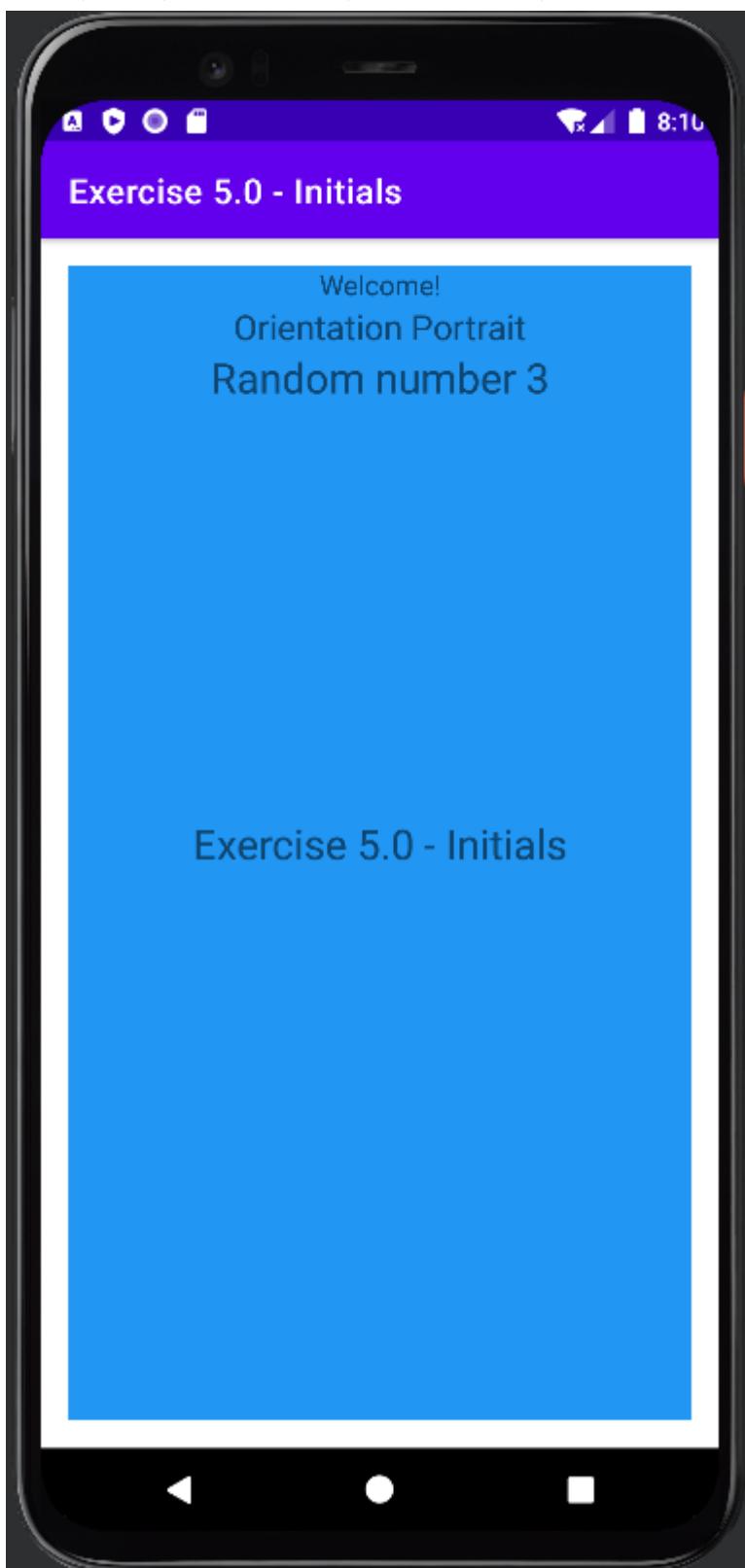
codesnap.dev

Zrzuty ekranu emulatora:

- Język systemowy jako język polski



- Język systemowy jako język angielski



Chciałbym zaznaczyć, że liczba na zrzutach ekranu się zmieniła - zmienia się co każde załadowanie aplikacji.

- Rotacja ekranu:

