

Problem 1

Write an application with a GUI which, given the name of a city and country, displays

1. Information on the current weather conditions in the given city.
2. Information on the current exchange rate between the currency in the given country and another, passed by the user, currency.
3. Information on the current exchange rate between Polish złoty and the currency of the given country, as published by NBP (National Bank of Poland).
4. The Wiki page with the description of the given city.

Ad 1: use api.openweathermap.org service;

Ad 2: use exchangeratesapi.io service;

Ad 3: use NBP services at:

<http://www.nbp.pl/kursy/kursya.html>

and

<http://www.nbp.pl/kursy/kursyb.html>.

Ad 4: use the **WebEngine** class from JavaFX to embed a browser into your Swing application.

The program should contain class **Service** with `Service(String country)` constructor and methods:

- `String getWeather(String city)` — returns information on the weather conditions in a given city of the given country in the **JSON** format (full information from **openweather** service — literally the text in **JSON**);
- `Double getRateFor(String currencyCode)` — returns exchange rate between the currency of the given country and the currency given as the argument;
- `Double getNBPRate()` — returns exchange rate between Polish złoty and the currency of the given country.

The following class **Main** demonstrates a possible usage of these methods:

```
public class Main {  
    public static void main(String[] args) {  
        Service s = new Service("Poland");  
        String weatherJson = s.getWeather("Warsaw");  
        Double rate1 = s.getRateFor("USD");  
        Double rate2 = s.getNBPRate();  
        // ...  
        // launching GUI  
    }  
}
```

Notes

- the methods above must be completely independent of the GUI.
 - All needed *.jar* files should be placed in the catalog of the project, e.g., in subfolder *lib* — physically, not as links to files outside the project folder. Otherwise, your program will not compile. The *Build Path* of the project should be configured, so the *.jar* files can be found.
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