Programming Challenge – API Integration

Thanks for taking time to participate in our programming challenge session. Good luck ;)

Expectations

With this exercise we expect to assess, even a bit, your code skills. Don't worry about being correct. There is no **right or wrong** answer.

Before you Start

The challenge takes 45 minutes. Make sure you have your computer properly configured (*e.g.* **Programming language, Code Editor and Internet Connection**).

Context

You will travel to a foreign city and want to know what clothes are appropriate for the weather. Since you are a programmer, instead of checking the climate conditions you rather create an application that will do the job. Luckily, AccuWeather provides an API can help you.

Instructions

Create a project that integrates with AccuWeather API, checks the weather forecast for the next 5 days and outputs which clothes you should take with you **according to the criteria below**:

AccuWeather Field	Condition	Clothes
DailyForecasts[].Temperature.Maximum.Value	Less than 45 degrees	"Coat", "Winter jacket"
DailyForecasts[].Temperature.Maximum.Value	45 to 79 degrees	"Fleece", "Short Sleeves"
DailyForecasts[].Temperature.Maximum.Value	80 degrees and above	"Shorts"
DailyForecasts[].Day.RainProbability or DailyForecasts[].Night.RainProbability	Above 50	"Rain Coat"
DailyForecasts[].Day.SnowProbability or DailyForecasts[].Night.SnowProbability	Above 50	"Snow Outfit"
DailyForecasts[].Day.IceProbability or DailyForecasts[].Night.IceProbability	Above 50	"Shell Jacket"

1. No conversion is needed from/to Celsius.
2. Feel free to model the solution as you wish (*e.g.* . CLI, API, function, etc).
3. While coding, take the opportunity to say out loud what you are thinking (if you are comfortable with).
4. If you get stuck, just ask for help. Feel free to search (Stackoverflow, Google, Docs, etc).

API Specs

- [AccuWeather Forecast API Documentation](#)
- API KEY: `Z1F1GUzpMaHfSKq7Qz3e7lqygFhPVliP`

```
https://dataservice.accuweather.com/forecasts/v1/daily/5day/60449?
apikey=Z1F1GUzpMaHfSKq7Qz3e7lqygFhPVliP&details=true
```

City Codes: 60449 (Santiago), 45881 (São Paulo), 349727 (New York), 101924 (Beijing), 127164 (Cairo).

Expected Output

Your project should present/return a JSON output following the example below:

```json
{
    "forecasts": [
        {
            "date": "2022-03-24",
            "clothes": ["Coat", "Winter jacket"]
        },
        {
            "date": "2022-03-25",
            "clothes": ["Rain Coat"]
        }
    ]
}
```

Evaluation Criteria

- [12 Factor App](#) guidelines
- Automated Tests
- Architectural Decisions
- Communication Skills
- Project Structure
- Good programming practices (DRY, YAGNI, KISS, variable/function names, comments if necessary, etc)
- Absence of Bad Smells
- Error handling