

Homework #4: Networking

Results for **Seattle, WA** · Choose area



Weather
Monday 1:00 PM
Rain

For Homework #4, you will build a multithreaded client server application that returns historical weather data for Seattle, Washington.

This homework combines most of what we have learned all semester, including:

- Maven
- Junit
- Logging
- Multithreading
- Networking

For this homework, you will use historical weather data at:

<https://github.com/vega/vega/blob/main/docs/data/seattle-weather.csv>. This is a 47KB file Comma Separated Value (CSV) file that you can download directly to your computer via: <https://raw.githubusercontent.com/vega/vega/main/docs/data/seattle-weather.csv>. Note that the file is simplified to only contain weather data for 2012 - 2015.

Your client should request a String date, e.g. “2012-01-01” (to simplify things, you can assume the client always uses the same date format used in the CSV file), and prints out the weather conditions for this date. Your server must return a **Weather object** with the following properties:

- precipitation
- temp_max (celsius)
- temp_min (celsius)
- wind
- Weather

Hint: to make this work, you will need to review the slides on **Serializable** and **Sending/Receiving Objects**.

Your server should **read the entire Seattle Weather CSV file into memory and should be ready to return data on any date**.

Important:

1. You must use Maven to organize your code.
2. You must create a Junit test for your WeatherReader.
3. You must use logging via SLF4J within your server to log all client requests.
4. Your server must be able to handle multiple simultaneous requests and must use a Thread Pool.
5. All classes and methods should have docstrings, methods should be relatively short, and all code should be properly indented.

Good luck!