Program 2

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# Overview

The purpose of this project is to demonstrate how to use a REST API. This project has two functionalities: getting the weather and getting the forecast for a given city. The city is passed in as user input and the user has an option to whether to display the weather or the forecast for that city.

Due to the constraints of the API, only the city is a required parameter with the country code being optional. Therefore, any input that gives an invalid city or an input with a state will return an error.

# Tools Used

* Java 8
* Maven
* JSON.org
* OpenWeatherMap API

# Design

The program consists of a WeatherComponent class. This class contains the implementation for the REST API. It contains two methods: getFiveDayForecastByCity and getCurrentWeatherByCity. Each method utilizes a different REST API endpoint. Each method also takes in a ResultHandler interface with a method called callback. Passing in a callback will allow the invoker of the method to handle the results any way they want. In this case, the main class simply displays the results of the REST API response.

# Usage

A jar file is included in the final submission of this project. To run the jar file, from the root folder, simple type in:

java -jar program2.jar

The user is then presented with prompts to continue the execution of the program.

# Build

The project is built through Maven but the Maven wrapper is included in the project to provide an easy build process. Installing the dependencies can be done by typing:

./mvnw install

To package the program into a jar file, type:

./mvnw package

This will generate the program2-0.0.1-SNAPSHOT-jar-with-dependencies.jar in the target directory.