

University of Washington Bothell

CSS 436: Cloud Computing

Program 2: REST

Purpose

The programmable Web or cloud communicates via web services which expose RESTful APIs. In this assignment you will build a client app which consumes a RESTful API. Generally when using the Cloud you will use SDKs that abstract away the details. However, in this case will go bare bones HTTP to GET from the web. The lab will also force you to work with de-serialization of either JSON or XML.

Problem Statement

Create a Java application which takes as input the name of a city and makes a API call to get the current weather in that city. It should also make two other calls to separate Web-based web services which provide information about that city.

Your program needs to communicate with three independent restful services: a weather API and two others of your choosing.

Make sure you utilize correct back-off logic on your API calls.

Problem Statement Details

- You must consume multiple RESTful APIs to get this information.
- The program must be a command line program. It should not have a GUI interface.
- This should be a java class which can run in the Linux Lab
- I am intentionally not specifying what information is displayed back to the user. However, a useful app is required and will be graded accordingly.
- The OpenWeatherMap is a great free website which allows one to get this information. I would recommend using this. <http://openweathermap.org/api>
 - You'll need to signup to get appid for authorization
- The other fact about the city must come from a different web service and it should also be RESTful
- Your program should have proper re-try logic using appropriate exponential back-off.
- Have Fun!

Example Invocation:

java MyCity Chicago

Turn In

A **.zip file** which the module named:

- A one page document describing your application, design, and usage
- Java files required to build your application.
- Simple shell or makefile which will show the grader how to build the applicaton.