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 an application which can run on Windows or Linux which takes as input the name of a city and provides information about the weather for that city as well as one other interesting fact.

Your program needs to communication to two independent restful services: a weather API and another 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.
- THERE SHOULD BE NO IDE DEPENDENCY'S TO BUILD YOUR APP
- I am intentionally not specifying what information is displayed back to the user. However, a useful app is required and will be graded with this in mind.
- 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
- You may build you app either with C#/.Net, or Java. Please do not use Python.
- Your program should have proper re-try logic using appropriate exponential back-off.
- Have Fun!

Turn In

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

- A one page document describing your application, design, and usage
- Executable of application
- All code and clear instructions or Makefile on how to build the application (the grader should be able to build your application in a couple of minutes)