

Deliverable 3

Introduction

Since our previous deliverable, our group has worked on implementing our automated testing framework, while developing 15 of 25 test cases.

The goals for this deliverable were to:

- Rework the test plan written during Deliverable 2 (Chapter 2).
- Develop an architectural diagram or description of our testing framework.
- Document a full how-to on deploying our test environment and project.
- Developing at least 5 of 25 eventual test cases within OpenAQ-Fetch.

Plenty of time has been spent writing code to fulfill the core requirements of our automated testing framework.

Accomplishments

During project development for Deliverable 3, our group has accomplished rewriting the test plan previously mentioned, which includes the hierarchy of how we are to proceed with testing different aspects of OpenAQ throughout the rest of the semester. 15 test cases were written for OpenAQ-Fetch to execute. The automated testing framework was written in the BASH programming language. Documentation was provided for deploying and executing a full clone of the project, as well as our automated testing code. Lastly, an HTML file was written to report the outcomes of the testing framework based on the test cases used within OpenAQ-Fetch.

Learning Outcomes

Our team has learned how to develop a proper test. Our team has learned how to write code in BASH, as well as HTML. The work done helped develop a further understanding of how to write proper test cases for a complex software which includes multiple components and interfaces. Knowledge of a “Layered Architecture” was discovered for designing the description of our automated testing framework.

Problems Experienced

During development of the BASH code for OpenAQ-Fetch, we were having trouble discovering the proper syntax and method to parse and execute a string of arguments from a separate text file which contained our test cases.

Going forward

The next goal, per specification of our test plan, is to one hundred percent finish the design and implementation of our testing framework. As well as finish developing a full set of 25 test cases for OpenAQ-Fetch.

First version of our Layered Architecture can be found below

