Password Hashing Application Specification

Requirement specification that was used in building of the password hashing

application.

You ***must*** set a PORT environment variable before executing the application. It will

crash otherwise.

**Linux example:** $

export PORT=8088

**Windows example:**

1. C:/> SET PORT=8088 2. Use the Control Panel to set a

System or User variable for

PORT. Remember to reopen your cmd window after doing this.

Supported OS:

* Ubuntu 16.04
* Mac OS X - Sierra, High Sierra
* Windows 10

The application ***should***:

When launched, the application should wait for http connections.

● It should answer on the PORT specified in the PORT environment variable.

● It should support three endpoints:

○ A POST to /hash should accept a password. It should return a job identifier

immediately. It should then wait 5 seconds and compute the password hash.

The hashing algorithm should be SHA512.

○ A GET to /hash should accept a job identifier. It should return the base64

encoded password hash for the corresponding POST request.

○ A GET to /stats should accept no data. It should return a JSON data structure

for the total hash requests since the server started and the average time of a hash

request in milliseconds.

● The software should be able to process multiple connections simultaneously.

● The software should support a graceful shutdown request. Meaning, it should allow any

in-flight password hashing to complete, reject any new requests, respond with a *200* and

shutdown.

* No additional password requests should be allowed when shutdown is pending.