Uplight Tech Assessment

Introduction

We're excited that you're working through the interview process with us, and we'd love you to complete a small assignment to show off your coding skills.

The assignment is not pass/fail – it is an opportunity for us to see how you approach your work. It will serve as a jumping off point for our on-site interview. Please only spend 1-2 hours on this assignment; we are not looking for perfect code, but rather good ideas.

Submitting Your Assignment for Evaluation

Please include the following with your submission:

- All source code in an archive format, like zip or tar.gz.
- Documentation on how to run your service. Optionally you may include the following documentation:
- Any parts of your code that you would like us to pay closer attention to.
- Any other notes or insights you'd like to share.

Reviewer Criteria

We will be reviewing your submission based on the following criteria:

- Does it work? If it throws errors, we'll probably contact you to make sure that it isn't our fault.
- Feature complete: does the service implement all of the specified functionality?
- Code Quality: is the code consistently formatted, are there unit tests, is it readable?

It is not necessary to implement any form of CICD or integration tests. We don't expect any above-and-beyond level of effort.

You are welcome to use any third-party libraries; you are not expected to implement a hashing algorithm from scratch.

Language

Python w/ flask and JavaScript/node w/ express are the most relevant stacks to our developer community at Uplight, but you are welcome to use the languages/stack of your preference.

The assignment: Generate an HMAC Token

HMAC is a type of authentication code that verifies the data integrity and authenticity of a message (https://en.wikipedia.org/wiki/HMAC).

Your task is to implement an API endpoint that generates an HMAC token. The connection will be a POST containing the data the user wants used in the HMAC token. For instance, given the request:

```
curl —data "id=MDAwMDAwMDAtMDAwMC0wMDBiLTAxMmMtMDllZGU5NDE2MDAz" http://localhost:8080
```

Your program should return:

```
{
  id=MDAwMDAwMDAtMDAwMC0wMDBiLTAxMmMtMDllZGU5NDE2MDAz&Signature={generated_signature}
}
```

(Where “generated_signature” is the hmac token generated by the application.)

Please provide any and all relevant documentation when submitting the project.