

QA Automation Live Coding Challenge

Versions

1.0 - 2022-02-25

The problem

The Woebot dev team has created a new set of API endpoints that will be deployed to AWS using AWS API Gateway and Lambda services. You have been asked to create an integration test suite that verifies the endpoints' operations. This integration test suite will be run as part of the CI/CD pipeline with a failure blocking the release.

Endpoint specifications

/user/new

This endpoint is called to create a new user account on the system. The lambda first verifies that the email address specified is not already in use, that all arguments are formatted correctly, and that the supplied access code matches an existing and unredeemed code. If these tests pass, the lambda creates the account.

```
{
  "definitions": {},
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "title": "mobile-user-new",
  "description": "Create a new user",
  "required": ["platform", "timezone"],
  "properties": {
    "userId": {
      "type": "string",
      "maxLength": 36,
      "pattern": "^[a-zA-F0-9-]+$"
    },
    "email": {
      "type": "string",
      "maxLength": 200
    },
    "password": {
```

```

    "type": "string",
    "maxLength": 200
  },
  "code": {
    "type": "string"
  },
  "platform": {
    "type": "string"
  },
  "timezone": {
    "type": "string"
  },
}
}

```

/message/new

This endpoint is called to send a new message to the system for a particular user. The lambda first verifies that the `userId` specified is valid and matches an existing user profile, and that the message is valid. If these checks pass, the lambda responds with a message from the system.

```

{
  "definitions": {},
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "title": "mobile-message-new",
  "description": "Submit a message for a user",
  "required": ["userId", "message"],
  "properties": {
    "userId": {
      "type": "string",
      "maxLength": 36,
      "pattern": "^[a-zA-F0-9-]+$"
    },
    "message": {
      "type": "string",
      "maxLength": 10000
    }
  }
}

```

The Ask

- Write an integration test suite that can be run against the new set of endpoints in order to verify their prescribed operation.
- The suite should verify the basic parameter checking of the API.
- The suite should also verify the API's response.

Guidelines

1. It should be written in JavaScript - if you don't know JavaScript, we will accept Java or Python.
2. You can use a framework of your choice - e.g. MochaJS, Jasmine, Jest.
3. The code need not be actionable but it should be designed with this in mind.
4. This is a live coding challenge and so, you'll be asked to describe your proposed solution to a member of the Woebot team and then walk them through it as you code.
5. We don't expect you to comment your code during the exercise but do ask that you take good code organization into account and follow good code hygiene practices.
6. We want to see that you understand the frameworks that you're using and the tenets of API integration test code writing.

Best of luck!