

Unit Testing for Project Group1-Calendar

CIS 422, 2019 Winter

Group 1

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Objectives

This project is mostly driven by JavaScript and PHP files. To make sure all data output and function behaviors are as expected, this project includes unit test cases to assist implementation.

Tester Info

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Code Source Description

- This project is using an open source testing framework called [Jest](#).
- The open source framework is conducted and mainly contributed by [Facebook, Inc.](#)
- Jest is selected to be the calendar project because Jest is designed to test JavaScript, simple to set up and efficient to use.
- To set up and use the framework, [Npm.js](#) is needed. The set up instruction is in below.
- There is one directory called *node_modules*, which includes necessary required JavaScript libraries for unit test.
- There are two files called *package-lock.json* and *package.json*.
 - File *package-lock.json* is generated by Npm.js to describe a single representation of a dependency tree such that teammates and deployments are guaranteed to install exactly the same version dependencies.
 - File *package.json* is written by tester to define project properties, description, author & license info. For using Jest to test, *package.json* specifies its test scripts to "Jest".
- There are 4 separate files written by tester in one directory *test*. Each is responsible for testing a different JavaScript file.(e.g. *data.test.js* is testing *data.js*)

How To Test

1. Install Npm.js

1. Npm.js is installed with Node.js. To install [Node.js](#), click the link and follow the instruction on the page.
2. To check if you have Node.js installed, run this command in your terminal:

```
node -v
```

3. To confirm that you have npm installed you can run this command in your terminal:

```
npm -v
```

4. If both print out version number v11.9.0 and 6.7.0, Node.js and Npm.js are successfully installed.

2. Install Jest

This is a simple step if Npm.js is installed. Run command in terminal:

```
npm install --save-dev jest
```

3. Test Project

In directory *Group1-Calendar*, run command in terminal:

```
npm test
```

Testing Result

- After a few seconds, a complete report on testing result will show on terminal, which includes all detail information on how many test cases get passed and how many do not.
- For test cases that not get passed, there are print statements specify where is the cases that not passed and reason why the expected result didn't show up.