Discussion Board 1.1 – Test Frameworks

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This week we look at Testing Frameworks. "A testing framework is a set of guidelines or rules used for creating and designing test cases" (smartbear, 2022). MochaJS "has been one of the most popular JavaScript testing frameworks since 2011" (Unadkat, 2022).

MochaJS

Key features of the MochaJS framework include (Unadkat, 2022):
- Provides compatibility for both front-end and back-end testing
- NodeJS debugger is supported, which makes error tracing easier
- Accurate reporting
- Provides support for all browsers, including the headless Chrome library
- Very convenient framework for the developers to write test cases

Mocha is a Behavior Driven Development (BDD) environment. "This means creating an executable specification that fails because the feature doesn't exist, then writing the simplest code that can make the spec pass. You repeat this until a release candidate is ready to ship" (Adsit, 2022). I like the idea of having tests in place before the coding. This helps to keep the attention focused on the end result while coding, and limits the chance of writing code that was not needed anyways, saving hours and money. MochaJS also offers support for the following 'hook' functions used to set up preconditions and clean up after tests:
- before()
- after()
- beforeEach()
- afterEach

TDD (Test Driven Development) does not offer these functions, but does offer setup and teardown (MochaJS, 2022).

Developers should build their tests before development if using BDD. This allows tests to be created for the application setting conditions that must be met. Developers should test often and test every line of code throughout the entire development process, only moving on to the next phase of development after the testing for the current phase has passed all tests.

References

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