

Emily Foglia

Professor Jeffrey Seaman

CMPS 361

3 October 2021

Open-Source Projects: Quality Assurance

Open-source projects have publicly available code that anyone can view, modify, and improve. This source code is free to use in any project, assuming the creator's terms of use are followed. Author Ethan Brown discusses a few open-source projects that can be utilized with Node and Express to provide quality assurance features. These projects include Jest, Puppeteer, and ESLint.

Jest is described as a “general-purpose testing framework.” This open-source project works with Node, React, Angular, and more. Jest provides the ability to test many aspects of your code, including the availability of routes and the serving of variables, such as strings. An important feature of Jest is code coverage. This provides statistics on how much of the code has been tested.

Puppeteer provides integration testing. A simple application of these tests can ensure that links lead to valid webpages. Integration testing generally verifies that an application is working as intended. This aspect of quality assurance is generally the most complicated to set up and maintain.

ESLint provides the linting aspect of quality assurance. Linting helps identify potential errors in your code, such as fragile constructs. ESLint uses a large set of rules to scan your code and point out issues. For example, ESLint can throw an error when a line that logs to the console is found. This feature can easily be switched off if it is unnecessary for any project.

All these projects are extraordinarily useful for quality assurance. As a software developer, it can be a nuisance to maintain quality assurance standards. These tools are not only useful and well-designed, but they are completely free to use. All these tools can be of great use in any project.

References

Brown, E. (2020). *Web development with Node and Express: Leveraging the JavaScript stack* (2nd ed.). O'Reilly Media.