EPI-USE LABS
value through innovation

Testing Policy

Contents

Overview

The test policy has been designed to ensure that each component of the system has been properly tested. Each component is automatically tested both through unit tests and integration tests. The automation of the tests is completed using GitHub Actions and Sonar Cloud. It is important to ensure that there is no single point of failure, and each component and page should be thoroughly tested to ensure coding standards are adhered to and that the system functions as it is designed to.

Tools

Tests for the front-end of the system are tested using Typescript and the React Testing Library. The tests are automated using GitHub Actions as well as NX. The back-end tests follow a similar set up. The back end uses NodeJS and GitHub Actions to complete and automate the tests. Additionally, alongside the GitHub Actions, Sonar Cloud is also used to test the code for vulnerabilities and ensure that the code is easily maintainable. CodeQL also tests Typescript code to ensure that the code is of a strong quality.

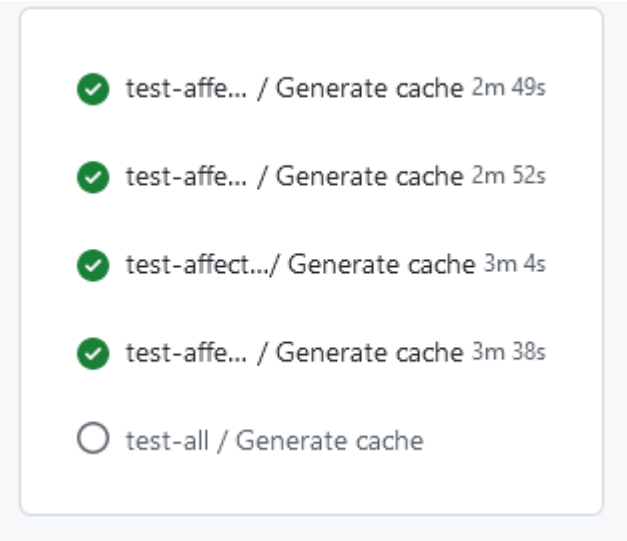

Figure 1 - Example of Tests

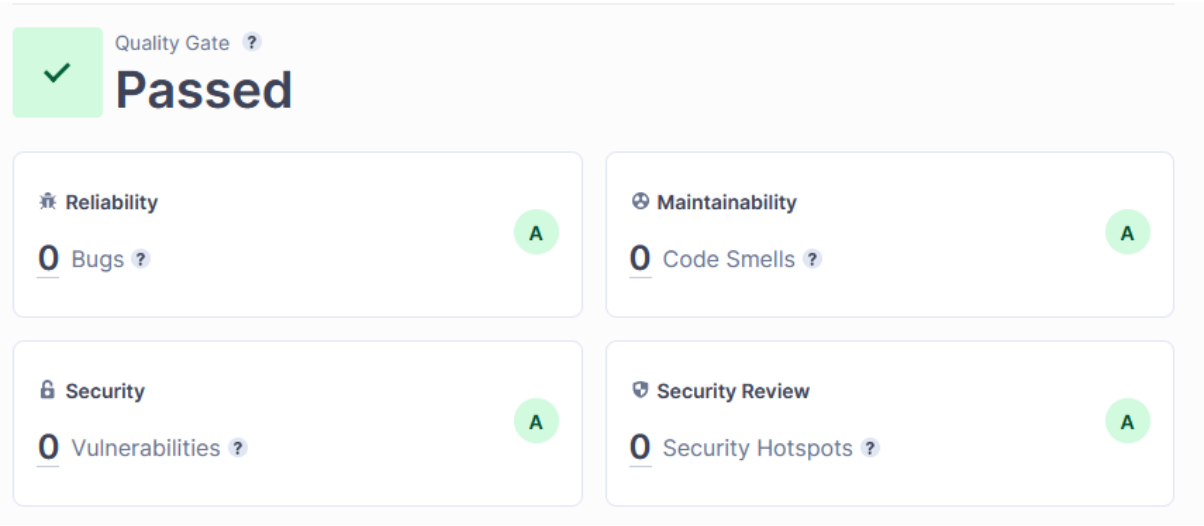

Figure 2 - Example of Sonar Cloud Tests

Procedure

Once a component has been created, a unit and integration test script is created to ensure that the component is thoroughly tested. When the component is pushed to the main branch, the GitHub Actions automatically run the tests, alongside the Sonar Cloud and CodeQL tests, and the GitHub is thoroughly linted and tests. No Pull Request is merged to the main branch, unless all tests are passed, and the request has been reviewed.