Are You Tested?

Motivation

A lot of times in the real world, we will be coding upon an existing framework that was either developed by someone else or was developed a long time ago. A good way to start is to read through the documentation written by the former contributors to the code base. Nonetheless, we sometimes encounter difficulties incorporating a framework into the existing code base, and it is often due to the mismatch between the written documentation and the actual implementation. However, when such situation comes up, we tend to trust the written documentation as it promises how the implementation behaves and think of it is due to we being unfamiliar with the framework. With this kind of heuristic in mind, we would spend a large amount of time not knowing what was wrong and also be put into a situation of not knowing what might be wrong inside the documentation. "I wish I could know how this thing is tested", as we often have this kind of thought when we encountered this kind of situation, we believe drawing connections between documentation and test cases would be a great help when developer found themselves in these kinds of situations.

Approach

The higher level concept of this project is that we that we have to create some connections between the individual documentation of each function and the corresponding test cases. After we have all those connections, we represent all those connections as proof, verification, and reinforcement of the documentation we wrote. This project is not intended to be replacing the work of implementation good test cases for the developer. It is aiming more towards letting developers to prove themselves.

Using Java as an example, normally in the documentation, we would have no idea that what kind of testing has been conducted on that one specific method. In order to bring that information back to the documentation, we may want to have specific user-defined tags included with the documentation of each method. Then if we have a corresponding test that verified the content of the documentation, we also make a tag on the test case and make a note on the documentation as proof that the documentation was tested. On the other hand, this tag may also serve as an index for users to go and check for whether the test is implemented properly, which further reinforced the confidence in user.

Challenges and Risks

Communication might be the one big thing that stops us from finishing the project on time, since all the member of this project will be students, and not everyone can contribute all their time into this project. We believe that the best way to resolve this risk is to be honest to the team about the workload and be responsive and take immidiate action to any projected event that might stop one from the finish the milestone on time.