

Mr. Speice

Independent Study Mentorship II

16 February 2021

Loopholes and Issues

Assessment 15 - Mentor Visit Assessment

Profession: Software Developer

Location: Virtual Platform via Discord

Date: 14 February 2021

Time: 11:00 A.M. - 11:40 A.M.

Assessment:

Quality assurance testing is one of the most essential aspects of the software development testing. However, through conducting proper quality assurance testing, the quality and user experience of an application will increase significantly because certain loopholes and issues will be resolved. While generally quality assurance testing is done at the completion of an application, it is important to conduct smaller scale quality assurance through testing portions of the application and applying appropriate fixes before the application is put together. This, in the long run, will ensure that the application does not completely fail in its final phases where there are hundreds upon hundreds of bugs or errors to fix. This past week, I had the opportunity to go through a smaller scaled quality assurance test with my mentor, Mr. Trey Blankenship, to ensure that all potential threats to the experience of the application are patched and do not cause long run troubles.

To initiate the discussion, the general project architecture was touched upon and vital questions about unforeseen consequences of the architecture were addressed. More specifically, the backend API was addressed in regards to how it might work if two requests were sent at the

same time. To overcome this, we discussed using a queue of some sorts or using semaphores to multiprocess the action. This is especially important to discuss because it looks at the application in a more holistic manner rather than the viewpoint of a single user. In looking at the bigger scale of the application, other bugs or issues like these can easily be identified and addressed and a more practical approach to application development will occur because the application is no longer being developed and tested on a single user basis but rather a multi user basis. In essence, by testing the application with respect to many instances of it running at the same time, the overall development process will become easier as less problems arise in the longer run.

Another major point that was discussed was the database architecture. Currently, the architecture that is currently written is very minimal and does not take into account how the application may work with actual user accounts. In order to ensure that the application does not have long run failures, it is important to finalize the database architecture now which will in turn allow the database files to be set in stone. This goes back to the idea of developing the application in a more holistic sense because it necessitates developing the foundations before further details are filled in. In doing this, smaller details can be built around larger foundations rather than having to adapt a larger foundation around smaller details. The discussion over the database architecture has solidified the top down approach of application development.

The early quality assurance has ensured that this application can identify and end any problems earlier rather than later. Through doing this, future issues that may arise will not be further complicated by present issues that were never resolved. That said, it is important for further steps to reiterate this process of development and quality assurance in smaller portions before putting the application together. In doing this, we can ensure that more time and energy is saved in the development, allowing for the product to be released to users sooner. This

experience has been an enlightening experience from a software development perspective and is sure to assist me both throughout the rest of my ISM journey as well as my future career.

Mentor Visit Notes