Samrat Sahoo

Mr. Speice

Independent Study Mentorship II

12 March 2021

<div align="center">The Larger Picture</div>

<div align="center">Assessment 16 - Mentor Visit Assessment</div>

Profession: Software Developer

Location: Virtual Platform via Discord

Date: 21 February 2021

Time: 11:00 A.M. - 11:44 A.M.

Assessment:

Software development is one of the most detail-oriented career fields out there as it is incumbent to look at every part of a project and ensure these parts are written correctly and therefore will function correctly. As a result, it can be easy to forget about the larger scheme of things such as the overall backend architecture. Because of this, the development process can become increasingly complex and messy since things are being developed on the go rather than being looked upon holistically and developed from a top-down approach. This past week, I had the opportunity to plan the larger picture of the product with my mentor, Mr. Trey Blankenship, to ensure that a more complex development process can be avoided by essentially taking multiple roles including being a product architect, developer, and manager.

To initiate the discussion, the project was looked at from the perspective of a software architect. More specifically, the database architecture of the product was finalized and drawn through a graph where the primary keys and foreign keys as well as their relationship with each of the database tables were clearly outlined. Looking at the product from the viewpoint of an architect rather than a developer is incredibly important because it ensures that the backend of

the project has solid foundations rather than being arbitrarily developed. Additionally, the role of an architect will serve to be incumbent to the success of the final product because through determining the final architecture, there will be less confusion and convolution in the development process and a clear pathway for how the product should be designed has been determined. Beyond the final product, taking on the role of a software architect is beneficial as a future career because many software firms are in need of such architects and so having these skills as a software architect will certainly prove to be a nice supplement when applying for jobs or working on other projects.

Next, the project was looked upon holistically from the perspective of a software developer. With software development being very broad, it was necessary to consider project issues from different fields within software development. For example, the project was looked upon from the standpoint of cybersecurity and potential vulnerabilities with Pickle and Binary database formats were identified. This proved to be incredibly beneficial in the long run because without this there would security vulnerabilities that could cause the eventual downfall of the entire project. Additionally, this was good to look at in a more holistic sense because as a full-stack project, there are no other developers to validate what is happening. Therefore by truly looking into every aspect of the application, one is able to ensure the overall success of the application on every front.

Finally, through analyzing the application from the lens of a project manager, I was able to look forward and see what should be done next in terms of creating this in code as well as the next features and steps that should be taken to ensure that the application is as successful as can be. This will prove to be helpful because in every team there needs to be a sense of leadership and by looking at this from a managerial perspective, I am offering a sense of leadership and

direction for this project. Additionally, this perspective also assists with leadership development as the project is no longer being looked at technically but rather more holistically and on a larger scale.

A top-down approach to completing a project has never been so essential! Through a top-down approach, many development practices have been gained and the project is in an overall much better place. Through embuing this holistic approach into regular development, a more efficient and effective method of ensuring project success on all fronts is being implemented. It can be said that the project will not end up where it will had the larger scale of things not be looked at.

Mentor Visit Notes