

Part A - What was your individual contribution to this project? Did you apply and build upon the skills identified in your initial assessment from last Fall?

What did you do and how did you do it? What did you learn and what competencies did you build? What were your successes, what were your obstacles?

My individual contributions to the Internal Home Directory project mostly revolved around the development of the application backend. This included creating the SQLite database, query methods, REST API connections, and performing tests on the python server that hosts the database. This was accomplished with an SQLite database being accessed through a python based server, with queries being received and returned using flask. This project built upon the skills of networking, sorting algorithms, databases, and search algorithms as mentioned in the initial assessment.

I feel that I have learned a lot from this project, and there are many things that I would have implemented differently. A major obstacle we faced was adding new metadata to the database; this would require refactoring each time something was added which wasn't an efficient way to develop. In the future, a more abstract data structure could be used to better adapt to future needs. It would also be beneficial to implement a smarted caching system so that fewer queries are hitting the backend at any time. A major success of our project was the frontend design; we got a lot of positive feedback on how it was easy to read and interpret which was a major goal of our application.

Part B – What did your group accomplish? What did you learn about group work? What aspects of teamwork were successful and what aspects of teamwork were not successful? How did your efforts on the project compare to that of your teammates? Do any team members deserve special recognition?

Our group created a client-server inventory management application that was simple to use and easily adaptable to a user's needs. This prototype application can be used as the basis for a fully featured application and demonstrates all of the basic functionality. Our group consisted of two members; I primarily worked on the backend and database, while my other group member, Justin, worked on the frontend web client. We found huge success in focussing on areas we felt confident in while also sharing our knowledge with each other. Since the frontend and backend are codependent, we both were exposed to parts of application development we hadn't worked in before which was a major point of growth.

I felt that my work was comparable to that of my partner, where we both focused on our side of the application and intermittently came together to bridge the gap between them. My partner often felt like I was doing most of the work since she struggles with backend development, but likewise I felt like she did so much heavy lifting on the frontend as my skills are not best suited for user interface development. I believe that we both benefited greatly from each other's experience, and appreciated the skills that we both brought to the team. This project emphasised the importance of building a team with diverse skills to collaborate and share skills for a better end product.