Alex Mezcua

<u>Individual Capstone Assessment</u>

My senior design project is focused on demonstrating my total skills acquired throughout the past five years of college. Throughout my academic experience there has been a focus on concepts, problem solving, and critical thinking. I plan to use these concepts when trying to optimize, create my senior design project. At times throughout my academic experience, I have had to become creative when coming up with a solution to a problem. This creativity will benefit me in the design of the project as well as the implementation of it. Between the overall skills I have gained as well as specific topics throughout my college experience I will attempt to create a creative and effective senior design project.

During the last few years, I have had to bounce between classes and acquiring co-op experience for a firsthand look at what the field is like. There has been a handful of non-technical skills that I will be able to use while working on my project. Communication has been a big focus for me in my co-op experience since we work in teams, this experience of working with teams and communicating progress etc. will be very helpful while working with my group. Time management is very important when working on a project like this because you will need to manage what the important parts of the project will be necessary to complete, as well as balancing work, other classes, and personal life. Organization which is mostly handled from use GitHub for each member to work on code in an organized way and merge them into a single branch which we will be mirroring with this project. Lastly, adaptability will be crucial considering the goals and plans of our project may change during the semester based on the difficulty of what we plan to do, being able to adapt to any situation will be an important skill I have acquired throughout the years in my co-ops.

Now to move on to the technical skill I have acquired that will be beneficial for this project. React is the primary front end-based language we plan to use in order to handle our application which I have used for multiple projects during my co-ops at Tiny Home Consulting (Full Stack Developer). Experience with using an API to create requests to retrieve / send information. This could potentially be used on our project based on the direction we want to go with it and I used this plenty at Tiny Home Consulting (Full Stack Developer). Using MySQL and working through information saved in a database could be helpful if we want to store any information for later use, I worked on multiple projects using this at Tiny Home Consulting as well (Full Stack Developer). Finally at Tiny Home Consulting (Full Stack Developer) majority of the projects that I worked on a backend for an application was wrote in C#, depending on what we plan to accomplish this could potentially be very useful since its familiar and easy to use.

I am excited to work on a project that is an original idea I came up with and having a real say on the direction the project goes. Most of the time your impact or say on a project isn't that large since it is typically directed by a user so they get the say in how the application should run. In this case I will get to design the project the way I want which will make it very enjoyable to work on. I am hoping to have a finished project that I can showcase in the spring that is either completed or extremely far along. I won't have much time to just make a personal project like this after graduation so taking the time to create something I am passionate about now is ideal. If anyone can eventually use our product even if it's just a prototype, that would be amazing.

I will self-evaluate by keeping tracking of how many hours I put into the project per week. It is likely along the way we will run into some roadblocks which will slow down development so judging based on commits or git history isn't the best way to track contribution / productivity. For instance, if I meet with the groups a few times a week to work on design this time wouldn't be tracked into the project itself, but it is a clear contribution to the success of the group. The way we will know when the project is done when we have a working project that we can deploy to users. At no point are project usually "totally done" because maintenance is usually required after for discovered bugs / issues that may arise later. I will try to work with my group with any questions or ideas on the project and will know I did a good job based on my activity and resourcefulness to my group.