

Individual Capstone Assessment

For our capstone senior design project, my team decided to create a workout application. More specifically, an application that will track muscle overload to ensure that the user gets the most out of their workout. This application will also include artificial intelligence to optimize and predict what is the most effective way to overload each user's muscles. Another thing that this application will include is data visualization so a user can see their progress from their previous workouts. From an academic perspective, the application will involve creating a graphical user interface, implementing artificial intelligence, project management, and market research. All of the items that creating this application involves will help all team members grow in these areas, including me.

All the college courses that I have taken to this point will help me with this senior design project. Even though all my college courses that I have taken are helpful, some are more helpful for this project than others. One of the courses that I have taken that will be of extraordinary help is CS-5127 Requirements Engineering because it helped refine my skills in defining requirements and analyzing requirements. Another course that I have taken that will be helpful is CS-4033 AI Principles and Applications since this helped me understand and develop artificial intelligence. CS-4092 DBase Design/Devel will be helpful when developing the database for the applications. One final class that I have taken that will be beneficial is CS-4071 D & A of Algorithms because it will help with making our application more efficient.

All aspects of my co-op experience will be extremely beneficial when it comes to this senior design project. My co-op experience is five semesters at Perforce Software Incorporated working as a developer. One aspect of my co-op experience that is beneficial is the process of creating large programs efficiently and effectively since this project will involve creating a fairly

large application. Another aspect of my co-op experience that will be beneficial is the ability to diagnose and fix bugs in large programs since bugs could appear throughout the programming of this project. Testing applications and code changes to ensure satisfaction is also an aspect of my co-op experience that will be beneficial because it will help throughout the project to ensure everything is of high quality. One final aspect of my co-op experience that will be extremely beneficial is working on a team since this project will involve understanding team dynamics and what makes a good team which will help create the best project possible.

There are several things that are motivating me to pursue this project. One of my motivations for this project is I have not had good experience with workout applications that I have used in the past. Another one of the motivations for taking part in this project is that it would be nice to take part in the development of an application that could benefit several individuals. The preliminary project approach is first looking at the current market when it comes to other workout applications. Then take note of aspects that our team likes and dislikes from those applications. Once the team has an idea of what aspects we like and dislike we will create a rough idea of what our application will and will not include. With a rough idea of what our application will be, we iron out any potential problems that the application could have and finalize the idea of the application. After the idea has been finalized the application will be developed and tested creating the final product.

The expected result of this project is growth for myself and my team when it comes to software development. What I want to accomplish from this project is a workout application that is easy for users to utilize and get effective results from their workouts. When it comes to self-evaluations of my contributions many indicators will be used to tell whether I was an effective team member or not. One indicator that will be used will be the percentage of code

contribution which should be around the same amount as my other team members. Another indicator will be a discussion with my team members to get their perspective on my contribution and whether I was doing enough. One final indicator of my contributions will be the hours that I put into the project which should be around the same as my other team members. These indicators should give an accurate picture of my contributions and whether I have done a good job or not.