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Senior Design
Individual Capstone Assessment

My group's senior design project is a mobile app habit tracker. This habit tracker is a mix between a to-do list and a calendar app but it is catered to users who desire to build good habits and/or break bad habits. What sets this app apart from others of its kind is an accountability feature. Users will have the ability to share different classes of events with different users using a "friend code" system. This application will use several different types of "incentive" methods to persuade users to continue building good habits! Along with a to-do list, we may opt to add a calendar feature for increased functionality.

There is very little that I learned from my college curriculum that will be of use in the creation of this project, however several courses did help me hone in my skills and allow me to practice good coding standards. Data Structures (CS 2028), and Python Programming (CS 2021) helped me sharpen my C++ and Python programming skills respectively. Technical Writing (ENGL 4092) has taught me to be careful when writing documents like this one. With an app like a to-do list a database will surely be required. UC Database Design and Development (CS 4092) and Database Theory (CS 5051) will be helpful in designing those databases. Though I am currently still enrolled with Cloud Computing (CS 5165), I imagine that it could be quite helpful in the development of this project.

The majority of my experience that will be helpful to develop this senior design application was learned during my co-op experience. During my four semesters working for Northrop Grumman as a Technical Intern I've practiced python and C programming. Though it's expected that my senior design team will be using Dart language, I've learned many computer science concepts that could be translated well into app development. Northrop Grumman also taught me a little about network programming; when implementing a friend-code system and accountability features there will undoubtedly be tons of networking that has to be implemented. I see this as a big hurdle that we have to cross in the future, however it is one that I am looking forward to learning from! Northrop Grumman has also taught me how to use git effectively and with organization. I hope to pass on this knowledge to my teammates and keep a very clean repository.

My motivation for developing this app resides primarily in my desire to use the app in my everyday life. The idea for a to-do list habit tracker came to me when talking to a few of my friends about how I wanted to start reading my Bible everyday and practice my cello once a week. My motivation was lacking and I had nothing and nobody to keep me accountable. More than anything, I want this app to help people around the country build good habits and break bad habits. I want it to help change people's lives. It is also a hope that this application will somehow be able to make me money in the future.

My goal is to follow a venture capitalist (VC) model. We plan to build the app up to a working, stable state in hopes to get purchased by an individual or business. After that, if it pleases us, we can start the process over again with a different idea. By the end of senior design, our group plans to complete the core functionality of the application along with most accountability features. I will consider senior design to be a success if my peers and I find that we truly enjoy using our product and genuinely find it helpful in aiding us to achieve our goals of building good habits! However vague this success condition may be, I think it is the most accurate condition for me, and the only one that I will accept.