Project Constraints Essay

Working on a project that has subject matter as touchy as health and fitness, it's very important to address the ethical implications of an application that provides recommendations to the user. A major issue to be addressed is the potential of injuring a user, or causing a user to have suboptimal workouts with poor recommendations. For example, with poor programming, the app could suggest that a user performs too many reps of very low depth squats, which may cause a user joint pain or suboptimal muscle growth. Another potential issue is discouraging a user with unrealistic expectations. Our algorithm may recommend that the user overloads their exercise by performing one more rep than the previous week, for example. This, however, may not work for every user, causing the user to question why they can't meet the goal assigned to them, and may even cause unnecessary concern regarding their health.

When researching for our project idea, naturally, we looked for any existing competitors/products. We found that Peloton offers a product known as the "Peloton Guide", which is similar to our project. According to the patents page on Peloton's website, however, there are no patents listed for the "Peloton Guide". Additionally, all of our codebase will be created by the team from scratch, or if necessary, utilize code that has a GNU General Public License. Therefore, we can continue working on our project with no worries of any legal disputes from Peloton or any other company.

Due to our application involving the collection of user data to track the user's workout information and enhance their experience, there will be a significant amount of personal data stored. With all the personal information that will be stored, data piracy and security will be a primary concern for our application. Therefore, to alleviate this concern, there will be a great

deal of focus on implementing industry standards for data piracy and security to ensure the application's user data is secure to the best of our ability.