TrainHard

Database I Project

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1. The name of the application is TrainHard. The purpose of the application is to serve as a tool for training and dieting, with an audience ranging from someone trying to lose weight, or an athlete looking to see better results. The end user can establish a profile, including weight and prior conditions, among others. The user can then input what types of food they had, including information such as type and some nutritional information. They can also record exercise and sleep patterns. The trainer is an administrator that will be able to monitor the progress of his/her client or athlete. With a tool like this, the user will be motivated to pursue their goals and achieve their results.

2.

* For each user, we keep track of their first and last name, an address (which includes city, street, house number, zip code), their phone number, gender, height, weight, age, any medication the user may be taking, past injuries, insurance policy number.
* Each user can have multiple trainers to coach them. Each trainer has expertise (such as cardio, free weights, etc.), years of experience, gender, and age.
* Meal consists of the type of food that is consumed, calories, protein, iron, sodium, and sugar.
* Since sleep deprivation can lead to unhealthy habits, therefore each User has a record of the amount of Sleep they have. Sleep consists of starting time and ending time.
* Each user must exercise to stay fit. Each user can do any amount of exercises. Each exercise is one of three things: Cardio, Weights, and Activities (such as basketball, rock climbing, and canoeing). Cardio usually requires a start time, end time, calories burnt, distance, and the trainer. Weights consists the weight of the dumbbells or restraints, reps, sets, type, and the trainer. An activity consists of type, start time, end time, and the trainer.

1. There are no other domain restrictions as our model is fairly comprehensive
2. The trainer should be an administrator of the system. S/he should be able to view what the user is doing, in terms of dieting, eating, and sleeping. The user should be able to track any progress, such as weight loss (or gain), change in distance for running or weights used, for instance. With a frontend, they might be able to pull up charts to better visually represent progress. To have all of this functional, the user would be able to input all sorts of data, including what foods s/he had, listing key nutritional facts, what sorts of exercise routines were performed and calories lost. For somebody dedicated to better health or fitness, this would have all the necessary functions for to serve as a powerful tool.
3. We first had to decide what the scope of the project would be. This was an idea that originally was a diet tracker, but grew to include more aspects of health and fitness. Once this was done, we brainstormed a list of entities, and revised that list to come up with what we would use. We came up with a rough design on a white-board, and then used computer modeling software to complete it. Surprisingly, there were no disagreements, and as far as domain experts, we all maintain strict diet, exercise, and sleep patterns that encompasses the scope of this project.

7. Our group has decided on meeting three out of seven days of the week. We found since it took about thirty minutes to actually get organized and start working, it would be best to meet a couple times a week for longer periods rather than meeting for shorter periods. By doing so, it reduces the need to constantly meet; however this schedule allows us to be more productive during the times we do meet. The Founders common room is where we meet on Sundays, Mondays and Thursdays from 6pm to 8pm. The group fully understands the goals of our project and what needs to be accomplished by certain deadlines. Therefore, when there are cases when a member cannot attend a meeting, the other members can easily update the ‘absentee.’

8. We initially, began our project with the mindset that we would work on phases jointly as much as possible. So far we have been able to. We brainstormed the entities, their relationships, and attributes together. Jaymin designed our first rough draft conceptual schema on our team white board. Once we had created our rough draft, Lukasz began the design our final model using modeling software. Punit contributed by adding to our outline of phase 1 while we worked. The responsibility of editing and revising drafts is often shared- Punit’s work would be edited by Jaymin, Jaymin’s work by Lukasz, and Lukasz’ work by Punit.