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Software Development 1
3/4/19

Project Proposal: Workout Tracker

For my project I have chosen to do an application project that functions alongside a database. This will consist of maintaining records of, and providing metrics of multiple users' workouts.

To handle this project there will be multiple parts. The main part will be the graphical user interface or GUI that will be created in java that will allow for users to interact with their records of workouts. Through this program, the user first signs in, then has the option of tracking a workout, or viewing metrics of their progress.

There will also be multiple types of users, there is a guest user, who can see types of workouts, there is a user type which has all functionality of a guest user and can track their workouts and view metrics, and there is an admin type which has all of the functionality of a user although they can edit previous workouts. This privileges system makes it so that the users are honest about what they are doing and prevents false data being created from the system.

The metrics functions in this program will make it easy for a user to see what types of things they need to spend more time on or what to focus on. This function will take the "level of" by computing simply the total reps multiplied by the weight (in lbs.), and then use a simple function to compare those levels over time to see where there is no increase or decrease. Also, since not all exercises are going to be completed all the time, the program can also suggest exercises for future workouts based on previously not used workouts. As a side function, there will be the option to report an injury, which will then make the program stop recommending exercises associated with this injury, along with warning the user if they create a workout using the injured area.

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Another function of the program is that it tracks workouts. The program will start with no workouts in it, the only workouts that are going to be there will be added by admins or through users. This means that a user can add in a exercise to the system, with respective name, short description, machines/equipment used, specific muscle(s), and muscle group. Once this is done, this exercise is added to a public data set for all users to access. If time permits, I will be adding functionality to add groups of workouts, like ab sets, or push up workouts.

Although seemingly complex, I am ready to take on the challenge as I am hoping to actually use this program in the end.

Good ✓