

## Criterion A: Planning

### Scenario

The client is currently a senior in high school, Iman Khan. Apart from his studies, one of Mr. Khan's main hobbies is going to the gym to work out. He typically goes to the gym 3-4 times a week and his main goal is to build muscle, however this is a hobby of his that is fairly recent, with him having only started going to the gym in the early months of 2022. (Khan, 2022).

According to the client, although he goes 3-4 times a week he does not keep track of his progress or have any type of system in place to see his progression. He instead uses an application on his phone known as “Notes” only to write down the names of exercises he does in order to structure his work outs to different muscle groups for different days. However, he does not tend to use this any more as this was more of a tool he just used when he first started so that he would not forget what exercise to do and instead relies on his memory of the exercises to perform. He stated that this system was useful only initially while he was “laying out the foundations for my exercises and organizing them in different muscle groups for different days.” (Khan, 2022) Currently, as he does not use a system anymore and only relies on his memory there is no way for him to track his progress in terms of the weight/resistance used for different exercises, number of sets, and repetitions done between sessions. Hence, the current system - which in reality is non-existent - is flawed, as it does not benefit the user in any way or allow him to reach his goals.

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### Proposed Product

For something such as going to the gym to gain muscle, it is absolutely necessary that one is able to track their progress and is able to see that they are progressively overloading in weight (increasing the weight or repetitions over a period of time) as this is necessary in order to achieve my clients goals, which my client does not have. The solution will be one that solves this issue by allowing my client to track progress as well as plan gym sessions.

To solve the problem that my client is facing, my solution would be to create an efficient user-friendly system that would enable the client to track his progress by inputting the name of an exercise as well as the amount of sets and repetitions done for each weight, in which this will be organised in terms of sessions, in order for my client to accurately see progress for certain exercises. The client can view the different sessions and compare his amount of repetitions completed or the weight used for exercises compared to previous weeks.

The new solution will be programmed in the IntelliJ IDEA, Java JDK 8. This IDE is extremely powerful, free and open source allowing me to create a high quality solution while incurring no costs and maximizing my productivity.

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### Success Criteria

1. The client must be able to input the name of the exercise, weight/resistance used, number of sets, and number of repetitions. Which should all be stored into different sessions containing multiple exercises.
2. The inputted information must be readily available and accessible for the client to view
3. The system must be able to store data from older sessions and keep them saved so that the system does not reset every time the application is closed
4. The system should be able to prevent the input of invalid data, incorrectly formatted data, or wrong data; and any data that does not match the requirements should be correctly managed
5. The system should be able to request to repeat inputs of data should they be inputted incorrectly.
6. The system should be able to search through the sessions for certain exercises, and organise/sort the exercises based on muscle group.
7. The client should be able to store the data of the sessions and the exercises on a local file.
8. The Java System must be less than 750MB total.