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Object Oriented Software Engineering

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Software Requirements Specification

Also Included Case Diagram

Functional Requirements:

1. Read in user input for processing including
   1. Weight of lifter
   2. Age of lifter
   3. Weight class of lifter
   4. Weight lifted
   5. Attempt number
2. Calculate the following
   1. Wilks Score
   2. Kilos to pounds conversion
   3. Pounds of kilos conversion
   4. One rep max based on weight and reps entered by user
3. Program will keep track of and be able to return whether a lift was marked red (which means the lift was no valid)
4. All user input should be retrievable using the specified “get methods”

Nonfunctional requirements

1. Any one field displays one result
2. Results of any input is own shown after user clicks corresponding button
3. Bodyweight entered should be in pounds (for calculation purposes)
4. Can only be run on devices supporting Python
5. All available tools should use industry accepted calculations
6. Must support numeric values as input

Quick Recap

This application is going to work kind of like a swiss army knife for powerlifters. It will allow them to make calculations on the fly to help them better their workouts, training cycles, and meet related decisions. The application takes user input in various numeric forms (except one Boolean) and outputs the result of the field the user made a query in.

