

# CS4670 Coursework - Workout Recorder App

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# 1 Introduction

The purpose of this report is to produce a full and complete set of requirements and goals for a workout recorder app, along with a detailed scope and diagrams to support all of this. I will first analyse what the client's requirements are and how these translate into high level requirements, then break these down into functional and non-functional requirements. I will then use these requirements to produce a set of goals for the system and the needed diagrams (e.g. UML, sequence, collaboration, etc) that will further explore the system. The goal of this report will be such that, when it is finished, a developer or team of developers will be able to take it and build the system it describes.

## 2 Requirements

### 2.1 High-level Requirements

The high level requirements of this project are as follows:

- Record which workouts are done or gym classes are followed that day
- Record progress made and goals achieved per workout
- Be able to visualise achievements/goals via graphs or other statistical methods
- App is able to upload progress, achievements and goals to a cloud-based service that the user can access
- App is able to work without being connected to the internet
- Non-technical and intuitive user interface
- Development time of three to six months
- Budget of £20,000-£30,000

### 2.2 Functional Requirements

The functional requirements for this system will be:

- User will be able to record the type and number of workouts/gym classes done that day and be able to accept workout types that the app doesn't list from the user via a form or similar
- User should be able to record progress (time, distance, crunches done, weight lifted) and tick off goals (ran for 20 minutes, lifted 120lb)
- Progress should, after being entered, immediately be available for comparison and dissemination by the user via statistics (graphs, tables etc)

- Statistical analysis of progress, achievements and goals should be available for all workouts and exercise types, provided enough information is available
- The user should be able to access their workout statistics from anywhere that is able to launch the app via a login system (other android/iOS devices, pc, etc)
- The app should (if possible) upload the user's statistics to their user account

### **2.3 Non-functional Requirements**

The non-functional requirements for this system will be:

- a

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## Citations

Abramowitz, Milton and Irene A. Stegun (1964). *Handbook of Mathematical Functions with Formulas, Graphs, and Mathematical Tables*. ninth Dover printing, tenth GPO printing. New York: Dover.