

# Requirements and Analysis Document for Gym Companion

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version

## 1 Introduction

Gym Companion is an application suited for helping both advanced and beginner users to keep track of their progress in the gym. The application offers a way to use both existing and customized routines and scheduling them through a calendar. Users can view their progress both on-the-go and after the workout through an intuitive statistics page, including an interactive graph and lifetime stats.

*Background explaining why this application is needed (besides mandatory in course). What's the problem addressed (use imagination)? What will it do? Who will benefit/use from this application? In what situation will the application be used? Define the application. General characteristics of application.*

### 1.1 Definitions, acronyms, and abbreviations

*Create word list to avoid confusion.*

## 2 Requirements

### 2.1 User Stories

*Use the template from the course website and list all user stories here. It is fine to have them in an spreadsheet (or other application) at first, but they must end up here as well.*

*These user stories should describe what the user will be able to do. Write the user stories in language of the customer, and give them a unique ID. List the user stories in priority order.*

## **2.1.1 M01**

**Story Name** Gym Scheduler/Calendar

**Description** As a very busy gym-goer, I need a quick and easy way to schedule my workout routines so that I have time for other things.

### **Functional Confirmation**

- Is it easy to create a weekly schedule?
- Can I schedule routines?

### **Non-functional Confirmation**

- Can I schedule my routine any time of the day?

### **Tasks**

- Implement a calendar
- Integrate a calendar library
- Allow user to add a routine to a selected day
- Allow user to pick a routine from My Routines
- Create a method that returns a routine

**Priority** 2

**Estimate** 10-12 hours

## 2.1.2 M02

**Story Name** Avoid harmful mistakes

**Description** As a novice gym-goer, I need help understanding how to perform certain exercises because I don't want to make potentially harmful mistakes.

### Functional Confirmation

- Is there a written guide to aid me in understanding?
- Are there video guides/pictures to aid me in understanding?
- Is there a description for how to best avoid mistakes that can be harmful?

### Non-functional Confirmation

- Can I access the app 24/7?

### Tasks

- Add exercise information to every exercise
- Add pictures to each exercise. Take pictures or get permission/non-copyrighted.
- Embed exercise-video. Get permission or find non-copyrighted.

**Priority** 4

**Estimate** 4-6 hours

## 2.1.3 M03

**Story Name** Workout Reminder

**Description** As a forgetful person, I would like to be reminded when my appointed training time is about to start so that I don't miss it.

### Functional Confirmation

- Is there a way to get reminded a while before the workout is scheduled?
- Will I be able to choose when and how I get reminded?

### Non-functional Confirmation

- Will the reminders happen no matter the time of day?

### Tasks

- Allow the user to choose when to be reminded
- Remind the user at the given time

**Priority** 5

**Estimate** 4-6 hours

## 2.1.4 M04

**Story Name** Logging exercises

**Description** As a gym-goer, I need a way of logging my exercises so that my performance is saved.

### Functional Confirmation

- When Im done with a exercise will it be stored/saved?
- Will a workout routine store/save each exercise included in the routine?
- Can I add a description to the information that will be saved?

### Non-functional Confirmation

- N/A

### Tasks

- Allow the user to insert a message or a note to accompany the logged information. Part of the "well done"-page.
- Establish a database connection
- Save the information to the database

**Priority** 3

**Estimate** 12-15 hours (without dababase) 4-6 (with database)

## 2.1.5 M05

**Story Name** Browse Routines and Exercises

**Description** As a non-creative gym practitioner I want to be able to browse for routines and exercises so that I can exercise effectively.

### Functional Confirmation

- Can I find routines and exercises by name?
- Can I browse for routines or exercises specifically?
- Can I navigate by difficulty?
- Is it possible to sort by muscle group?
- Can I browse user made content?
- Can I save things I find when I browse?

### Non-functional Confirmation

- Can I access default exercises without an Internet connection?

### Tasks

- Implement search-function
- Allow user to filter exercises by muscle group, difficulty etc.
- Allow user to filter routines by difficulty, general muscle group etc.
- Implement save/favourite function

**Priority** 2

**Estimate** 10-15 hours

## 2.1.6 M06

**Story Name** Creating a workout routine

**Description** As a advanced gym-goer, I want to be able to customize my own work-out routine so I can focus on specific body parts.

### Functional Confirmation

- Will I be able to create my own workout routine?
- Can I create more than one customizable routine?
- Will I be able to customize the workout routine with different exercises?
- Can I edit an already existing workout routine?

### Non-functional Confirmation

- N/A

### Tasks

- Create custom routine. The parts included are: Create, pick, calculate.
- Create My Routines list

**Priority** 1

**Estimate** 8-10 hours

## 2.1.7 M07

**Story Name** Friends

**Description** Since I often work out with a group of friends, I want to be able to get connected to them through the app so that I can keep in touch.

### Functional Confirmation

- Can I add a friend to my contact list?
- Can I remove a friend from my contact list?
- Will I be able to see my friends profile?

### Non-functional Confirmation

- Is there a way to confirm another user as a friend?

### Tasks

- Create FriendList
- Create Add and Remove from Friendlist
- Show User a Friends Page
- Friend Requests and Confirmation

**Priority** 5

**Estimate** 5-7 hours

## **2.1.8 M08**

### **Account**

**Description** As a user of multiple platforms, I need to be able to view my data on many different devices so that I have the same data everywhere.

### **Functional Confirmation**

- Can I access my information?
- If I log into my account, will I be able to access information from any device I use?
- Will I be able to create a complicated password? (Not only letters/numbers)

### **Non-functional Confirmation**

- Can I access my information any time of the day?
- Will my password be hashed?

### **Tasks**

- Create a login
- Password Confirmation; get login information, compare password with database info.
- Hash Password
- Create Account

**Priority** 3

**Estimate** 10-12

## 2.1.9 M09

**Story Name** Profile

**Description** As a gym-goer, I need to be able to store my personal and training information so that I wont have to enter it every time I start the app.

### Functional Confirmation

- Can I later alter or remove previously entered information?
- Will I only have to enter information once?
- Is this information available for use by the app in all applicable scenarios?
- Can I set a profile picture?
- Can I set my experience level?

### Non-functional Confirmation

- Can I set my profile to private/public?

### Tasks

- Add profile information
- Implement privacy settings
- Connect user to dataHandler

**Priority** 3

**Estimate** 14-15 hours

## 2.1.10 M10

**Story Name** On-the-go edits

**Description** As an indecisive person, I need to be able to change my current work-out routine on the go if I change my mind.

### Functional Confirmation

- Can I modify the current routine while its in progress?
- Can I modify the amount of repetitions and sets of individual exercises?

### Non-functional Confirmation

- Can I change it from the beginning of the workout routine until the very end of it?

### Tasks

- Create edit tool. This includes: UI and the reuse of "edit workout routine"-method

**Priority** 3

**Estimate** 3-4 hours

## 2.1.11 M11

### First time at the gym

**Description** As a novice gym-goer, I need the app to introduce me to beginner level routines and exercises that fit me.

#### Functional Confirmation

- Can I get recommended routines for beginners?
- Can I get recommended exercises for beginners?
- Are the exercises in my recommendations truly in beginner level?
- Are the routines in my recommendations truly in beginner level?

#### Non-functional Confirmation

- N/A

#### Tasks

- Upon account creation, allow user to set their level of expertise.
- Sort lists accordingly, e.g Beginner user gets shown more of the beginner exercises

**Priority** 4

**Estimate** 3-5 hours

## 2.1.12 M12

**Story Name** Workout statistics

**Description** As a gym-goer, I need a way of seeing my development over time so that I can decide how to train.

### Functional Confirmation

- Is this information presented to me?
- Are there graphs showing development over time?
- Can I see more detailed views of what I've done in different exercises?
- Can I see a history of performed exercises?

### Non-functional Confirmation

- N/A

### Tasks

- Create a graph calculator (from library)
- Create workout history
- Make sure stats are calculated and saved to database

**Priority** 2

**Estimate** 10-12 hours

## 2.1.13 M13

**Story Name** Share Workout routines

**Description** As a personal trainer, I want to be able to share custom-made workout routines so that others can access it.

### Functional Confirmation

- Will I be able to share my workout routines?
- Will I be able to add additional information like description and muscle group for the workout routine once I share it?

### Non-functional Confirmation

- N/A

### Tasks

- Implement possibility for user to add personal routines to public access

**Priority** 5

**Estimate** 4-6 hours

## 2.1.14 M14

**Story Name** Track current training

**Description** As a gym-goer, I want to keep track of what I've done during my work-out so that I don't forget about anything.

### Functional Confirmation

- Can I see what I've done?
- Can I see what I have yet to do?
- Is this displayed to me in an intuitive way?
- Can I leave exercises unfinished but still finish the routine?
- Can I quit if I do not want to finish the routine?

### Non-functional Confirmation

- N/A

### Tasks

- Keep track of what user has done and what is yet to be done.
- Allow user to finish or quit.

**Priority** 1

**Estimate** 10-12 hours

## 2.1.15 M15

**Story Name** Begin and end training

**Description** As a gym-goer, I need to be able to start a workout routine and get satisfactory finishing results upon completing the workout, so that my performance is documented.

### Functional Confirmation

- Can I start a workout routine?
- Is the correct workout routine for the day chosen as default when I start?
- Can I choose which workout routine to perform when starting?
- Can I end a workout routine?

### Non-functional Confirmation

- N/A

### Tasks

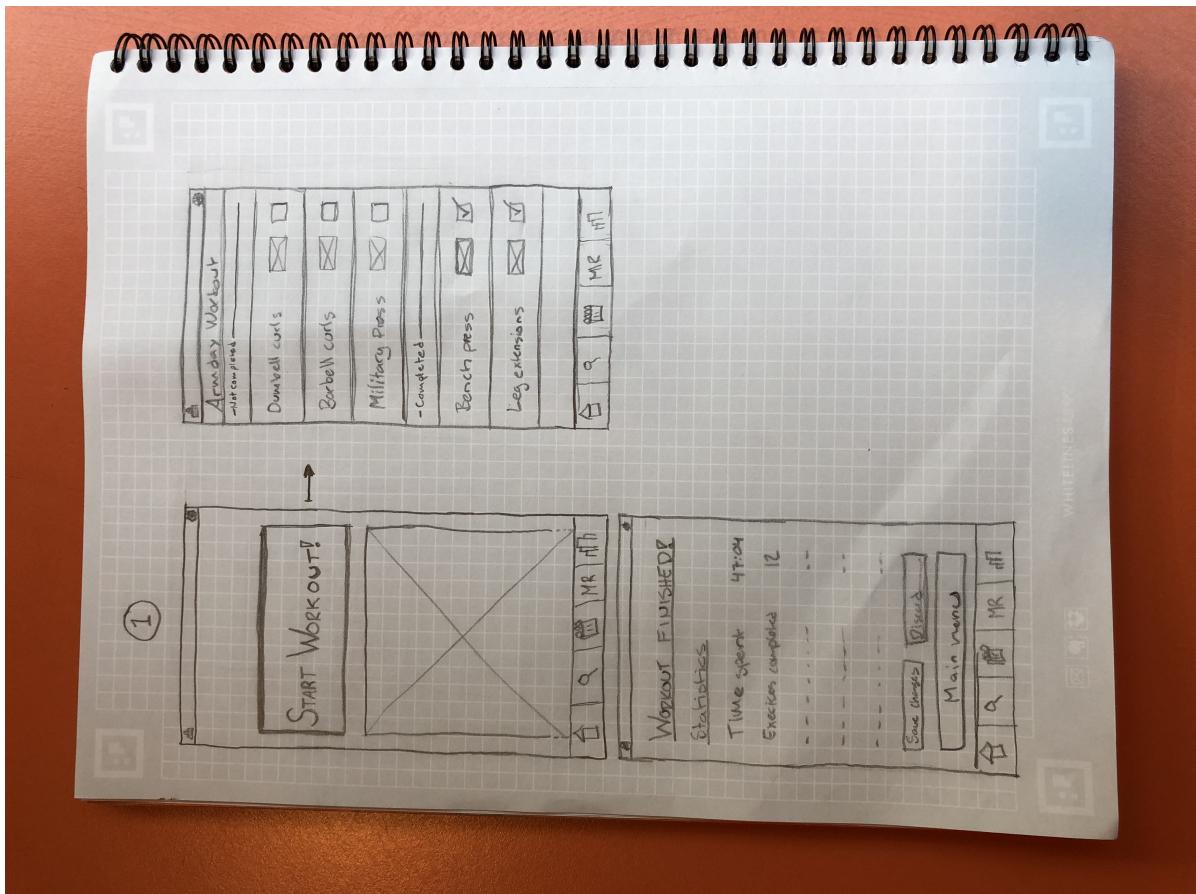
- Allow user to start a routine. Both with routine from calendar and MR.
- Allow user to finish a routine. Display relevant information.

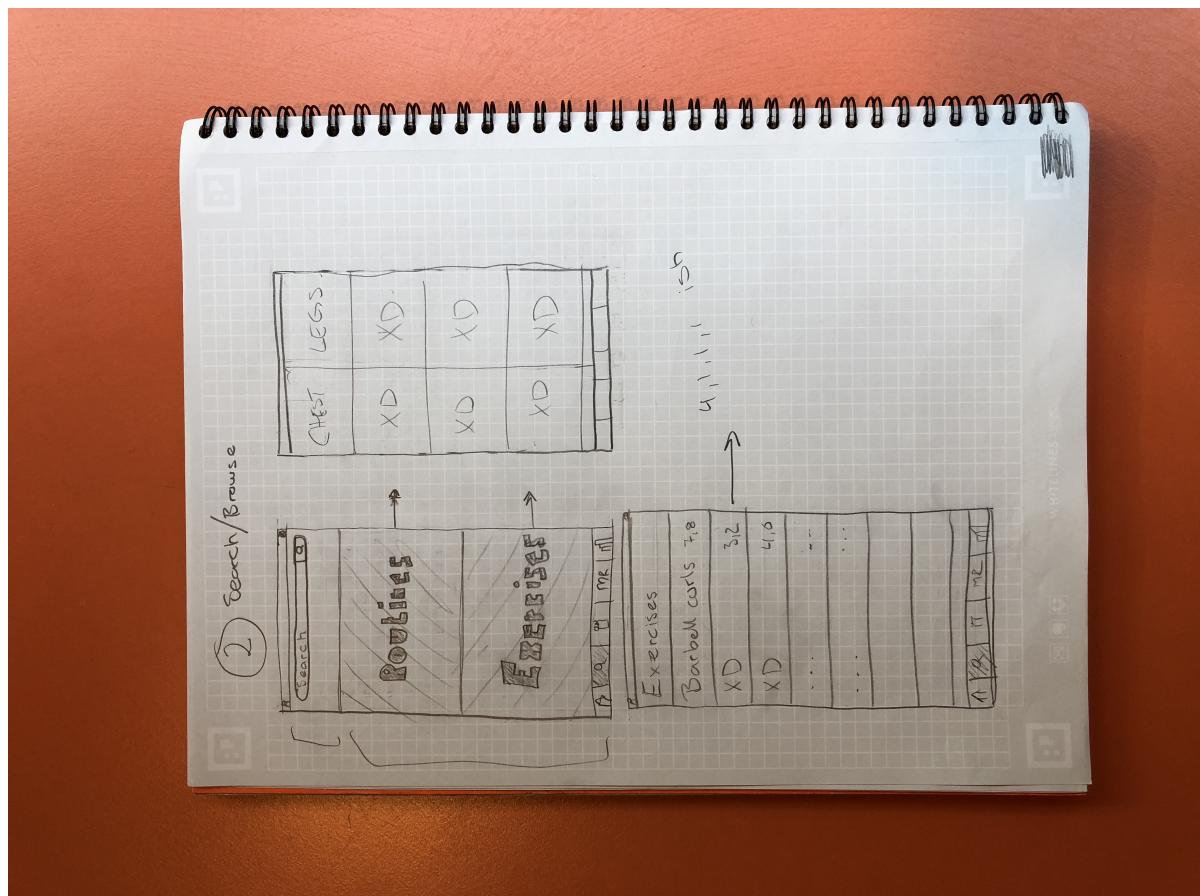
**Priority** 1

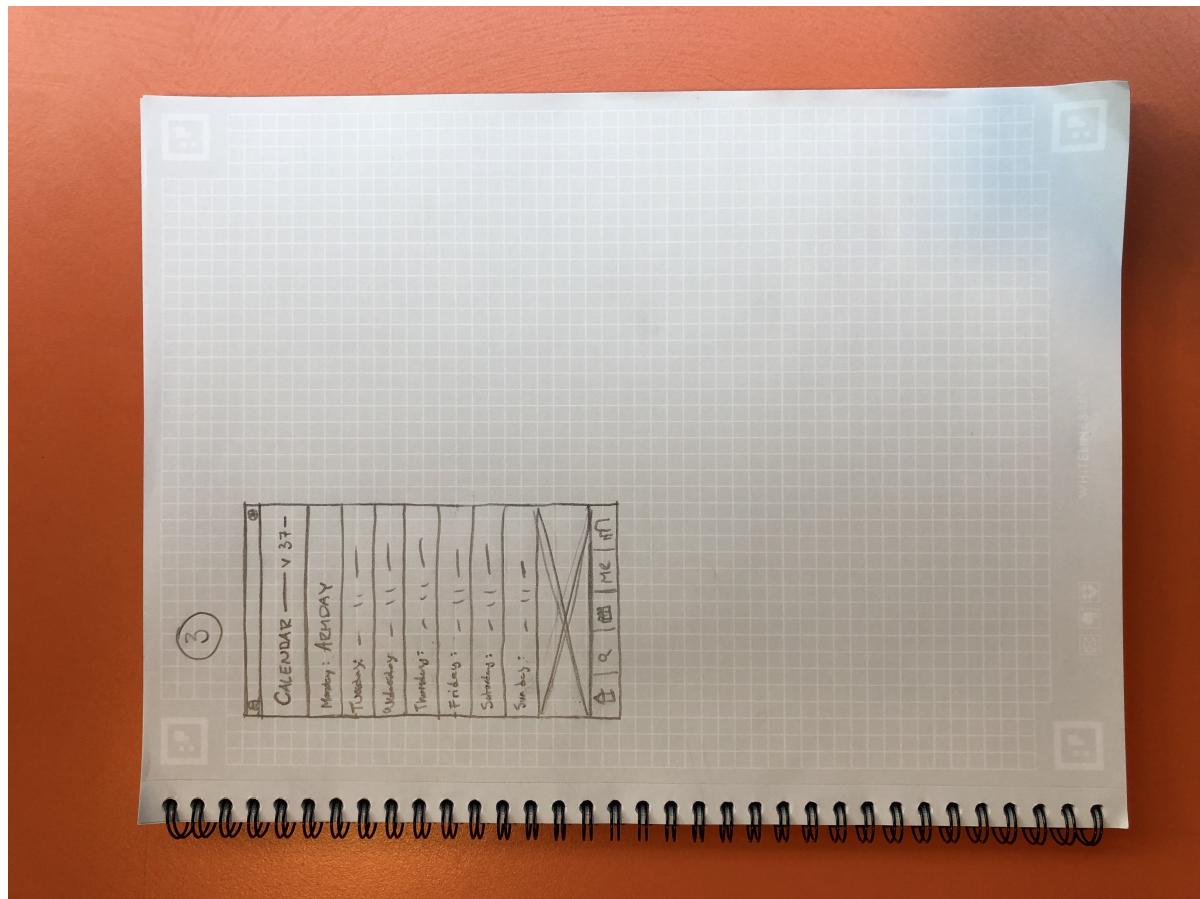
**Estimate** 6-8 hours

## 2.2 User interface

*Sketches, drawings and explanations of the application user interface (possible navigation).*







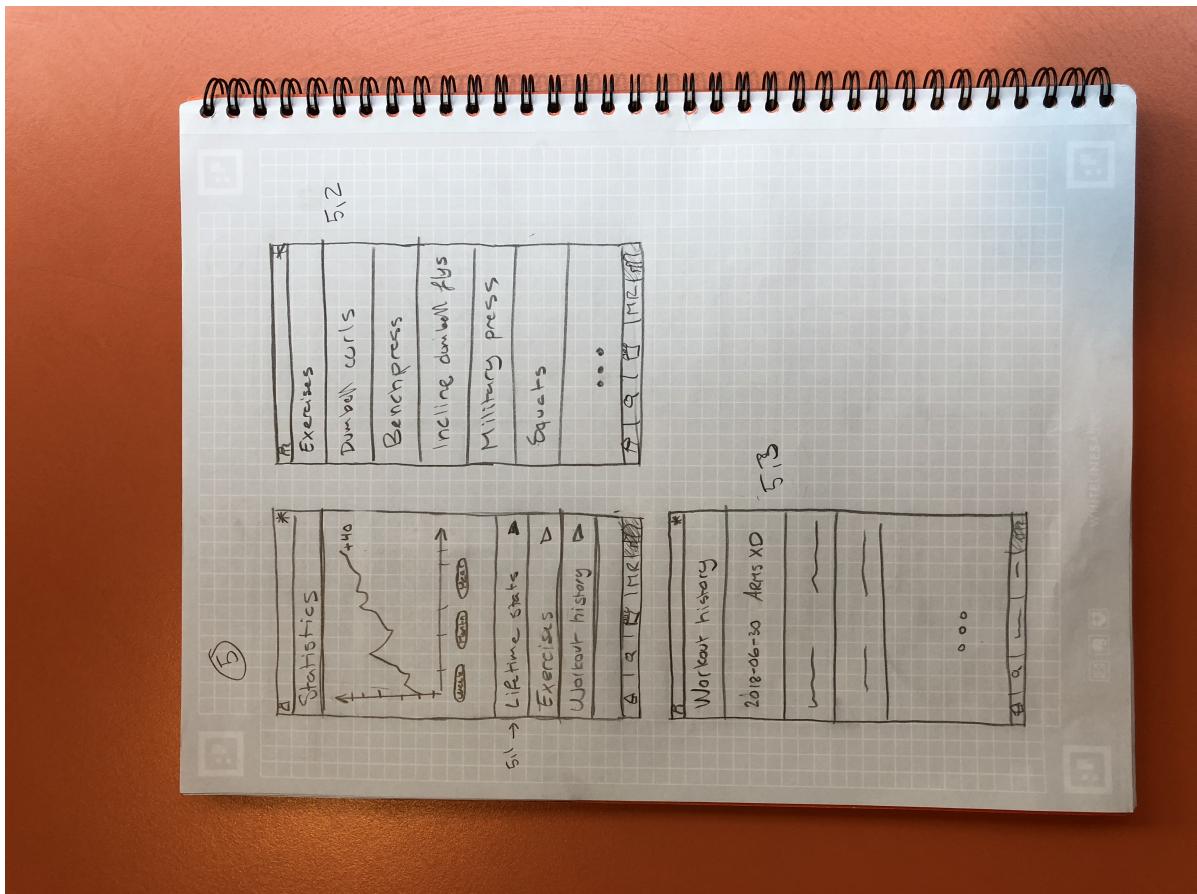
④	11	12 exercises	4 sets
	Greats pull-ups $\oplus$		
	Chest fly	△	
	Legs bro	△	
	Arms XD	△	
	Calves only	△	
	Chest (origin)	△	
	Dumbell curling	△	

⑤	12 exercises	4 sets	
	Greats pull-ups $\oplus$		
	Chest fly	△	
	Legs bro	△	
	Arms XD	△	
	Calves only	△	
	Chest (origin)	△	
	Dumbell curling	△	

⑥	12 exercises	4 sets	
	Greats pull-ups $\oplus$		
	Chest fly	△	
	Legs bro	△	
	Arms XD	△	
	Calves only	△	
	Chest (origin)	△	
	Dumbell curling	△	

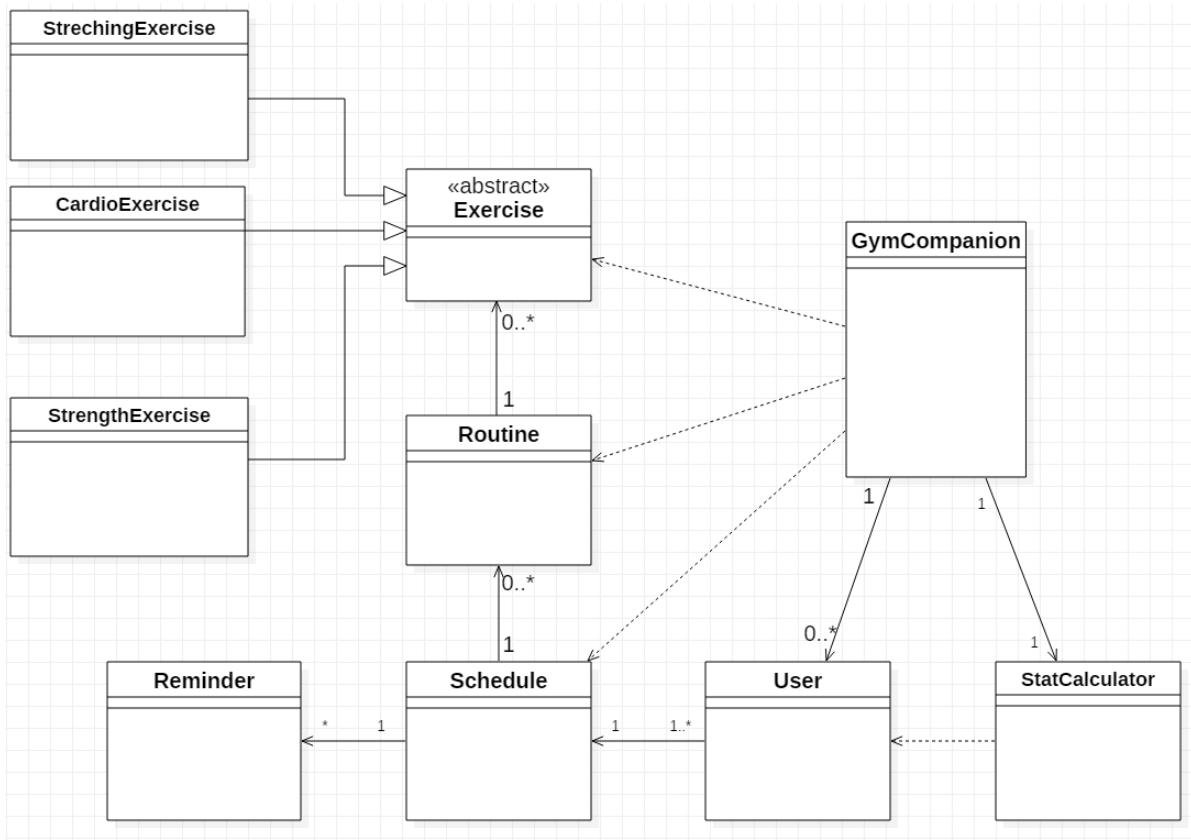


### 3 Domain model

*Give a high level view overview of the application using a UML diagram.*

#### 3.1 Class responsibilities

*Explanation of responsibilities of classes in diagram.*



### 3.1.1 GymCompanion

### 3.1.2 Exercise

### 3.1.3 Routine

### 3.1.4 Schedule

### 3.1.5 User

### 3.1.6 Reminder

### 3.1.7 StatCalculator

### 3.1.8 StretchingExercise

### 3.1.9 CardioExercise

### 3.1.10 StrengthExercise

## 4 References