

# Spring 1 Scoping

**Project:** Exercise Manager

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## A. Github

Repo: [https://github.com/zhaoluojia/cs5500\\_group\\_project](https://github.com/zhaoluojia/cs5500_group_project)

Project Broad: <https://github.com/users/zhaoluojia/projects/1/views/3>

## B. User Stories

User story 1. As an exercise lover, I want to get the distance and duration of one of my exercise activities (walking/jogging/cycling).

User story 2. As a person on a diet, I want to set a goal and compare the actual calories burned / steps walked /distance runned between a certain period.

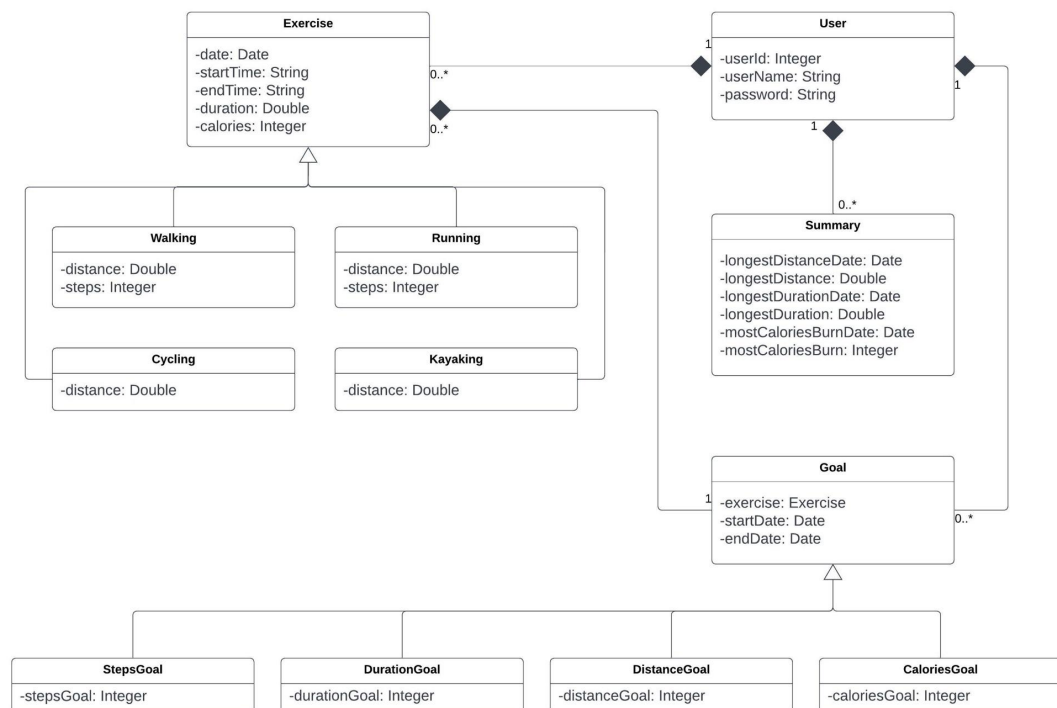
User story 3. As an exercise lover, I want to get a weekly report (summarizing the days with the longest distance/longest duration/most calories burned).

## C. Initial Design

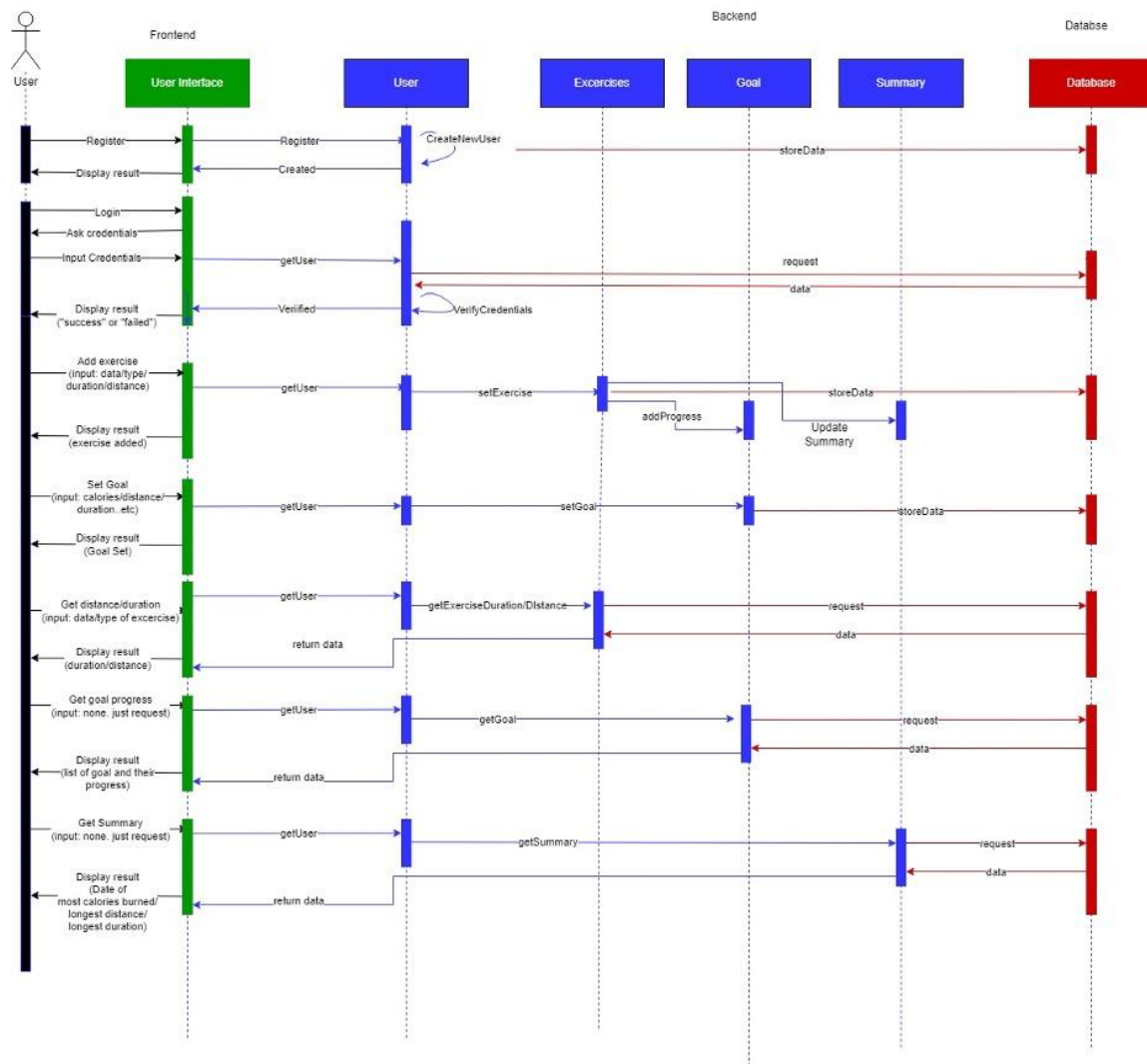
We use UML, sequence diagrams, and use case diagrams to represent our design on high level. Specifically, inputs / outputs are represented in the sequence diagram, and class relationship is represented in UML.

### 1. UML

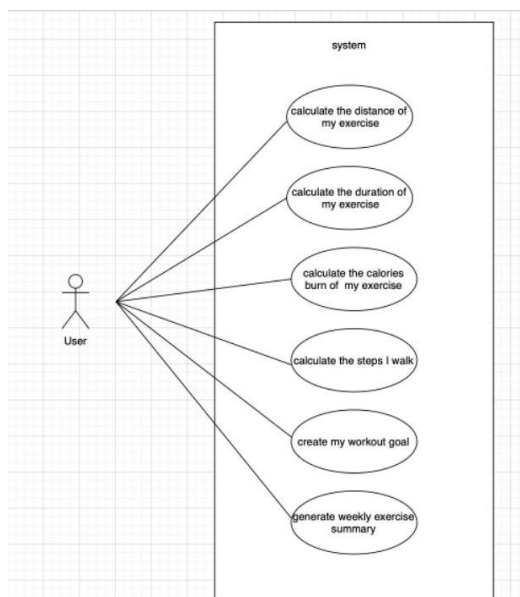
Exercise Manager UML



## 2. Sequence Diagram:



## 3. Use case:



#### **D. Programming Language and Library**

Language: Java

Framework: Spring

Database: MongoDB

Library: React (need to be researched more in detail)

We choose to use Spring as it is an open-source Java platform, which is lightweight and could use to build a secure web application with easy communication with MongoDB. And React could help to develop the user interface of the web application.