

# Milestone 2

## Rationale:

- My Fitness Tracker program is needed because it addresses the need for beginners to monitor their fitness journey effectively. Many beginners struggle to stay consistent with their fitness goals because of the lack of structure and motivation. My program targets individuals who want a simple and accessible way to log their workouts without complex and hard to use tools.

## Description of the System:

I'm creating a fitness tracker program to help users keep track of their fitness journey. My program will be a Java-based console, where users can:

- Log workouts (like "Running" or "Weightlifting"), including how long they worked out and how many calories they burned.
- Record their weight and see how it changes over time.
- Set fitness goals, like hitting a target weight or exercising a certain number of hours each week.
- Show a summary of their progress, like total calories burned, weight trends, and how close they are to reaching their goals.
- It will show encouraging messages during their workouts to help keep them motivated.

## Functional Requirements:

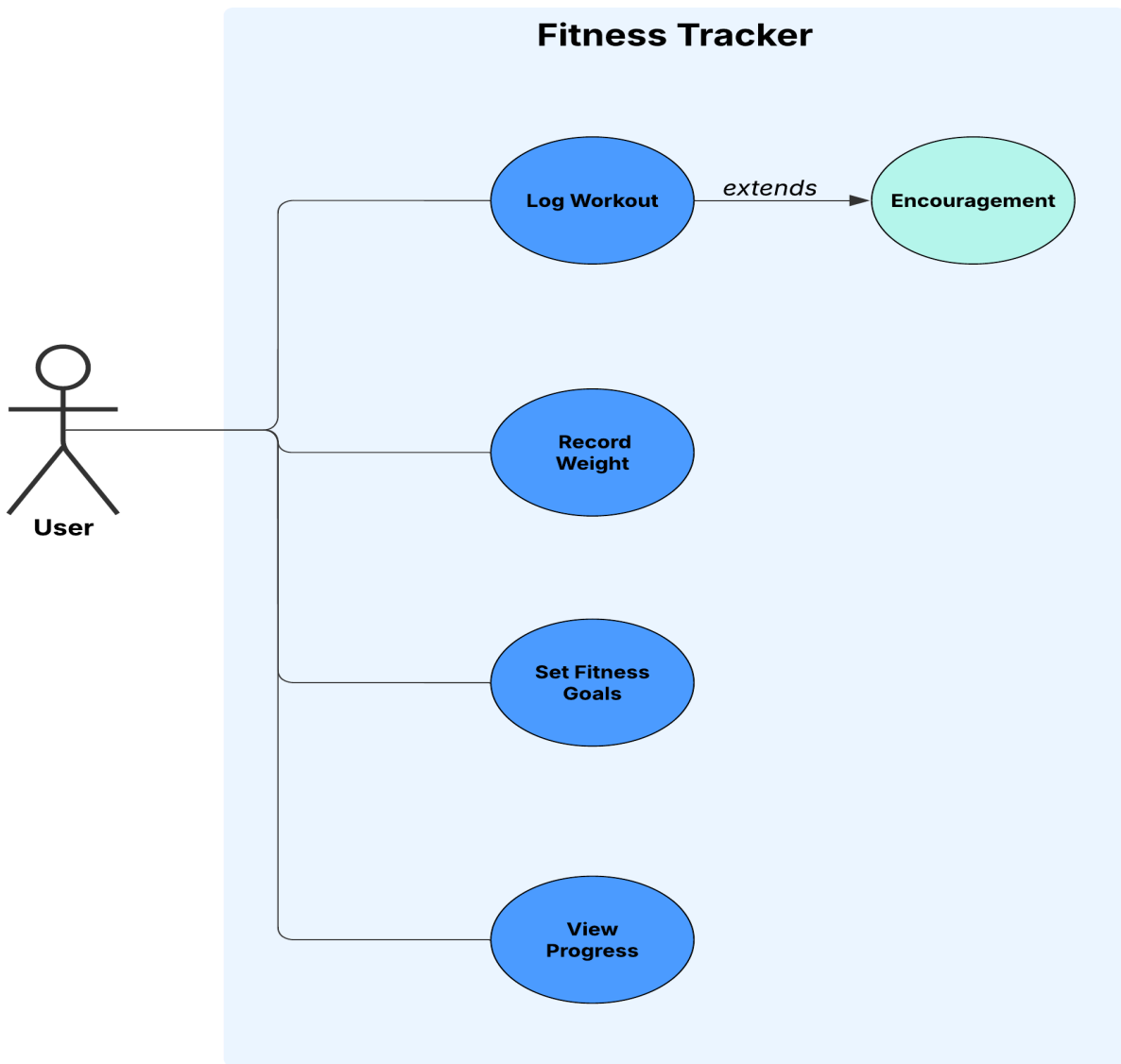
1. Log Workouts: Users can input the type of workout, duration, and calories burned. The system will validate the input to make sure it's accurate and correct.
2. Record Weight: Users can record their weight daily or weekly. The system will keep a record of weight entries. Over time, it will show how the weight changes, helping users see trends and understand their progress.
3. Set Fitness Goals: Users can set specific goals like a target weight or number of workout hours per week. The system will monitor their progress and show how close they are to achieving their goals.

4. Progress Summaries: Users can check summaries that shows all their workouts, how many calories they burned, and how their weight is changing over time. The system will also highlight their progress toward reaching their goals, making it easy to see how well they are doing.
5. Provide Encouragement: During workouts, the system will present uplifting and motivational messages. These messages will be to motivate and inspire users, helping them stay focused and energized throughout their exercise journey.

## Non-Functional Requirements:

1. Usability: The program will have a straightforward and easy to use interface. It will not be complicated so that anyone can use it without confusion.
2. Performance: The system will handle user input effectively and respond right away with feedback.
3. Reliability: The program will be able to run smoothly and not crash or fail.
4. Scalability: The system will be flexible so that more features can be added later if needed.

## Use Case Diagram:



# Use Case Descriptions List:

## 1. Log Workout:

- Actor: User
- Description: The user enters details about their workout, The system checks to make sure the information is correct and then saves it in the workout log.
  - Action: Enter workout details.
  - What Happens After: Once everything is checked, the workout details are saved, and the user gets a message confirming this.

## 2. Record Weight:

- Actor: User
- Description: The user records their current weight. The system then saves this information and updates the user's weight trend to track changes over time.
  - Action: Enter a correct weight value.
  - What Happens After: The weight entry is stored, and the user's progress updates to reflect changes.

## 3. Set Fitness Goals:

- Actor: User
- Description: The user sets a fitness goal. The system saves the user's goal and starts to monitor their progress toward achieving it.
  - Action: Provide a valid fitness goal.
  - What Happens After: The goal is saved, and the system begins to track the user's progress.

## 4. View Progress:

- Actor: User
- Description: The user can view a summary of their fitness journey.
  - Action: The system will retrieve stored data to show a summary.
  - What Happens After: The user is presented with a detailed summary of their progress.

## 5. Receive Encouragement:

- Actor: User

- Description: While the user is working out, the system provides motivational messages. These messages are meant to inspire and encourage the user to keep going. This is triggered once the user log the start of their workout.
  - Action: The user has to be actively logging their workouts.
  - What Happens After: The user receives motivational messages to help them stay motivated during their workouts
  - Message Example: "You're doing amazing! Keep pushing, stay strong and trust the process."