



Misr University for Science and Technology
Information Technology College

Academic Year: 2021-2022

Course Code: CS341

Department: Computer Science

CRN: 10637

Semester: Fall /2021-2022

Course Title: Software Engineering 1

Course Instructor: Dr. Khaled AlSheshtawy

Team Members:

Name	ID	Level
Ibrahim Abouzaid	89434	3
Nour Gaser	89553	3
Hussein Ali	89545	3
Waled Abdelrahman	89536	3
Omer Hassan	89658	3

Project Title



Nutrio - Fitness Tracker

Under the supervision of

Dr. Khaled AlSheshtawy

T.A. Ayman S. Abdelaziz

1- System Domain:

Fitness tracker is an online website which allows its users to track their daily diet and workout routines. When users decide to register, they can enter some of their information, such as age, gender, height, and weight. The users then can pick a diet to follow from a set of standard diet plans, or customize a diet plan for themselves. The user can also pick a standard workout routine or customize one. Additionally, users can set weight or exercise goals and the fitness tracker will then suggest diets and workout routines to help them reach that goal and track their progress towards it. The fitness tracker saves all of this information in a secure database for the users to view logs of their meals and workouts anytime.

When a user logs in, they see an overview of their day so far; how many calories they consumed, and how many they have left (based on their configured diet), and same goes for other nutritional elements (carbohydrates, protein, minerals, etc.). Below the daily diet summary, the overview also contains a brief checklist for the user's workouts which they're supposed to do on that day (based on their configured workout routine). The user can easily add a new meal which they've just consumed to that day or workouts that they have done; the database entry for that day is updated and their overview page is refreshed.

The users can customize and change their diets or workout routines at anytime from the settings page. If the user enters a new meal which would make one of their nutritional elements exceed its limit for the day (based on their diet plan), the user can choose to subtract the excess amount from the next day's limit for that element.

In order to accomplish these tasks the users should be registered on our website with all the information required as name, age, gender, height, weight, email, username and password, and with a configured diet plan and workout routine.

2- System Actors:

Term	Definition
User	The person who has an account on the system and can track their diet and workout routine.

3- Functional Requirements Specification:

REQ01 - Users must register on the website in order to use its fitness tracking system.

REQ02 - The system must send verification emails to newly-registered users.

REQ03 - Users must verify their email addresses before they can login.

REQ04 - Users must be logged in to use the system.

REQ05 - Users can choose a standard diet plan.

REQ06 - Users can build a customized diet plan.

REQ07 - Users can choose a standard workout routine.

REQ08 - Users can build a customized workout routine.

REQ09 - Users can edit their diet and workout configurations.

REQ10 - The system must save the user's configurations to the database.

REQ11 - Users can navigate to an overview page with their day's progress so far (diet plan and workout routine).

REQ12 - Users can add a new meal to their day.

REQ13 - Users can add a new workout to their day.

REQ14 - The system must update the user's day entry on their record in the database after each entry of a meal or a workout.

REQ15 - The system must calculate the user's amount of remaining nutritional elements for the day, along with their workouts for that day, when they navigate to their overview page.

REQ16 - The system must save the user's meals and workouts as a day entry for the user's record in the database.

REQ17 - Users can view logs of previous days to track their old meals and workouts.

REQ18 - Users can set dietary/workout goals; the system will keep track of their progress.

4- Non-Functional Requirements

REQ01 - The system should be easy to use without any previous prerequisites.

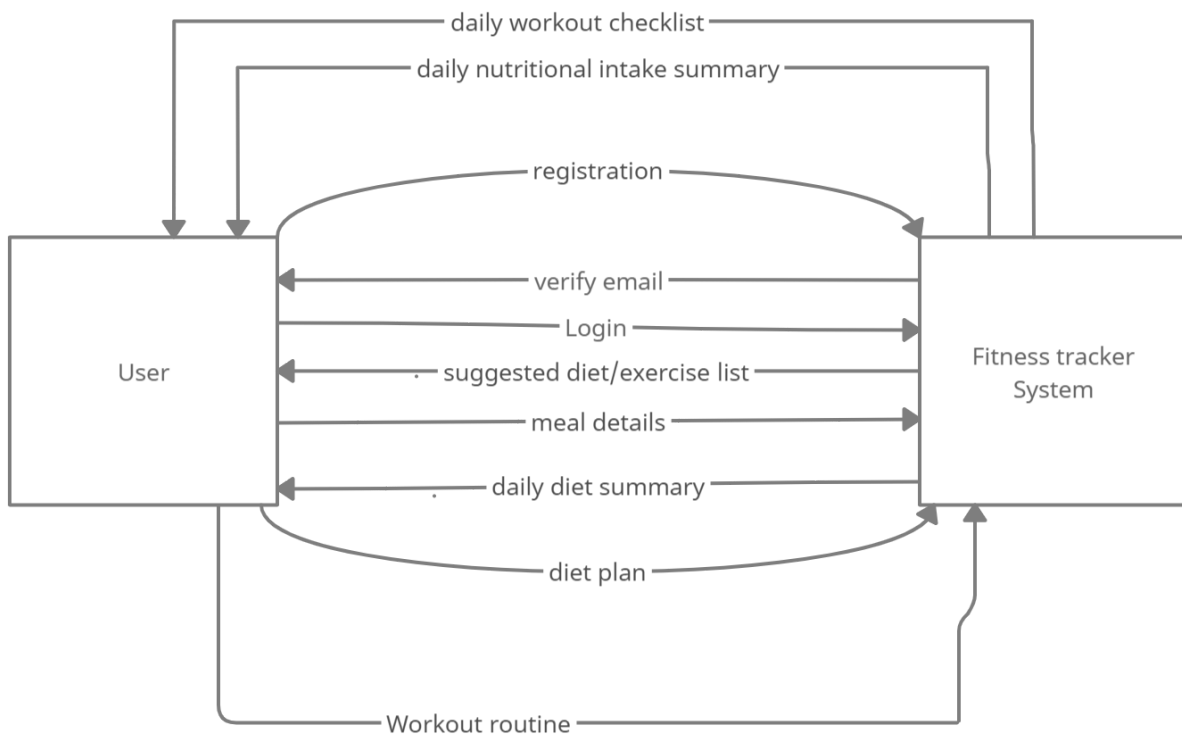
REQ02 - The system should be responsive.

REQ03 - The user's data must be private to the user only.

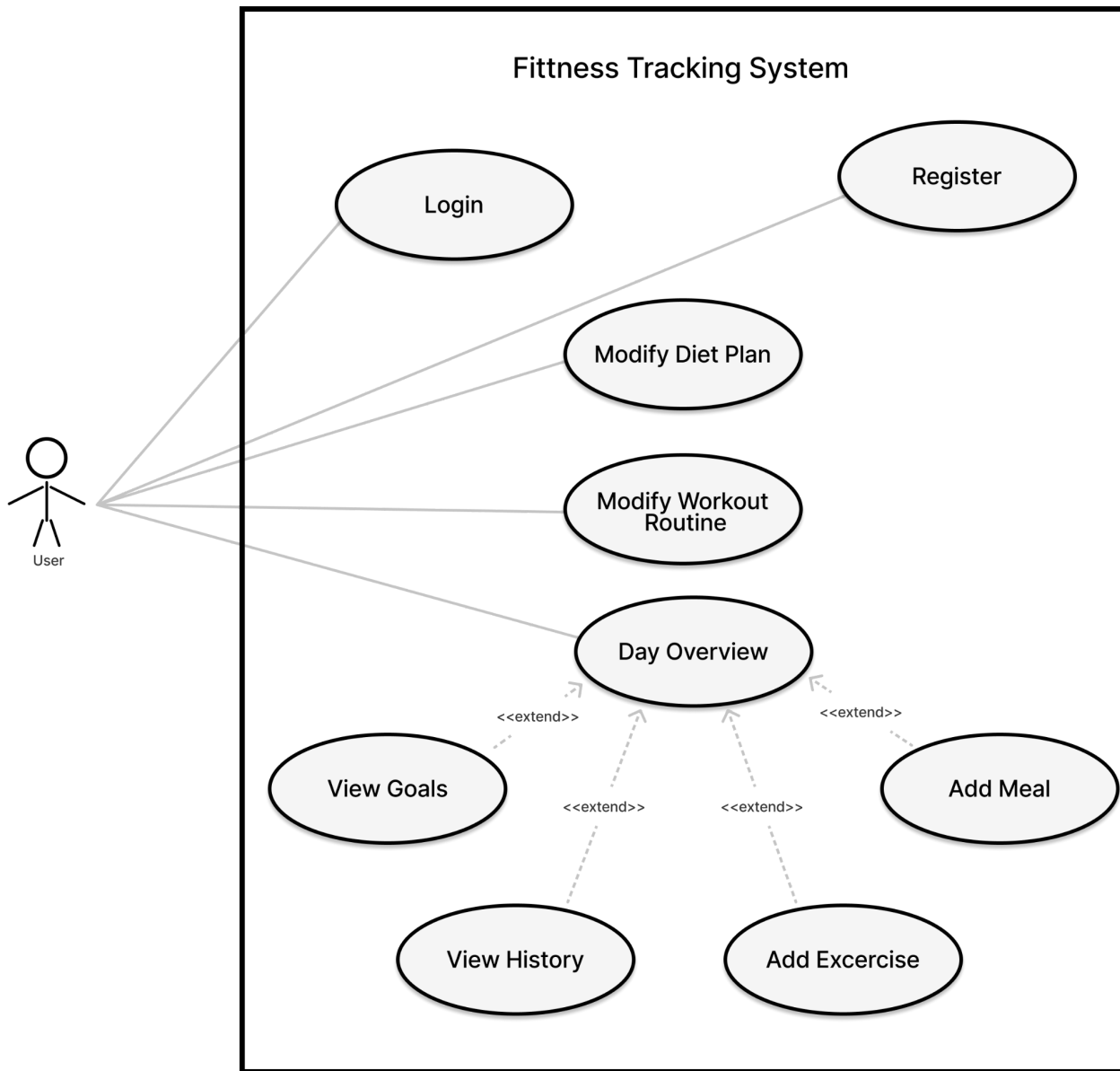
REQ04 - Users' password must be hashed and salted.

REQ05- The system should be accessible from any browser.

5- Context Diagram



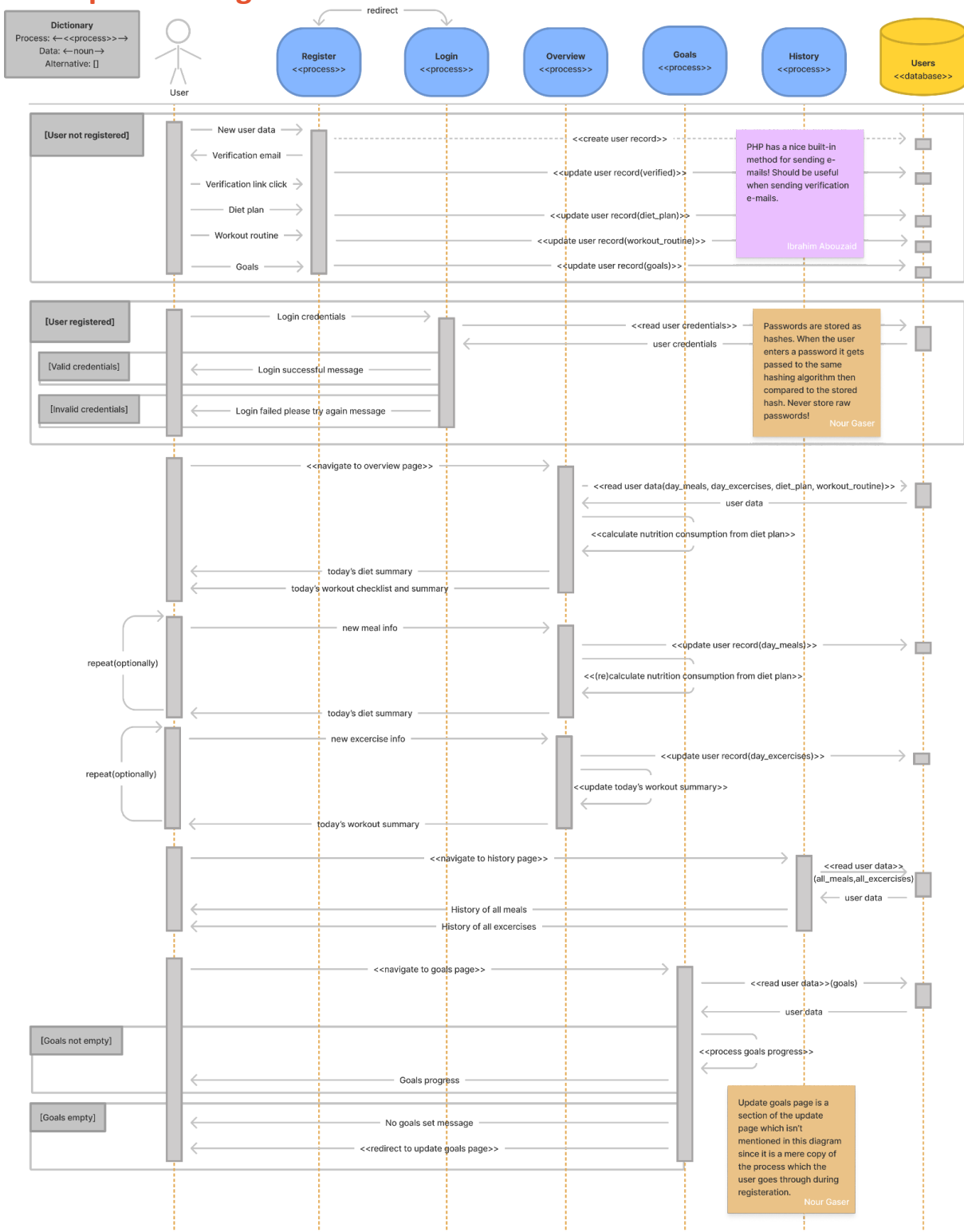
6- Case Study Diagram



You can also view this case study diagram digitally through [this link](https://linky.design/must-se-project-phase2-case-study-diagram)¹.

¹<https://linky.design/must-se-project-phase2-case-study-diagram>

7- Sequence Diagram



You can also view this sequence diagram digitally through [this link](https://linky.design/must-se-project-phase2)².

² <https://linky.design/must-se-project-phase2>

8- Website Design³

Home Page



Press **F11** to exit full screen

[Home](#)

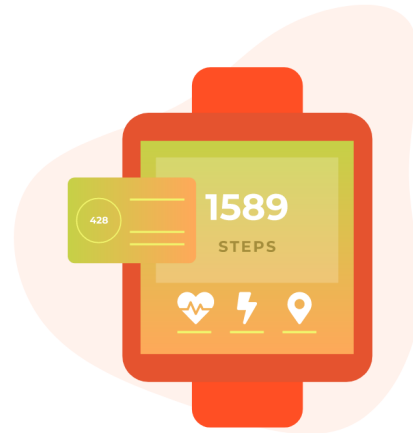
[About Us](#)

[Login](#)

Plan your diet and keep track of your exercises

Nutrio is a platform where you can build a custom diet plan (or choose a standard one!) to track your daily nutrition intake. With Nutrio, you can also build workout routines, use daily workout checkboxes, set goals, and more...

[Join Now!](#)



Login Page

Press **F11** to exit full screen



Your handy calorie tracking buddy ■

Email


Password

[Login](#)

Don't have an account? [Register](#)

³ <https://fierce-fortress-62202.herokuapp.com/>

Register Page

 **Nutrio**

Your handy calorie tracking buddy 🍌

Email

Password

Confirm Password

Age

Weight


Height

Weight Goal

[Register](#)

Already have an account? [Login](#)

Overview Page

 **Nutrio**

[Today's Overview](#)

[Diet](#)

[Workouts](#)

[Journal](#)

[Calendar](#)

[Data Analysis](#)

[Profile](#)

[Configure](#)


Diet

Unit

Had

?

View Full diet

Fats _(g)	Protein _(g)	Carbs _(g)	Fiber _(g)	Water _(L)	Calories	
43	43	43	43	43	1456	
60	60	60	60	60	2000	

Add New Meal

Meal

Choose a meal

Amount

+

Add