PROMOTING HEALTHY EATING & BALANCED DIET

with Re-Define Me

Professor: Henry Wong
Computer Science Project
Course : CS692
Team: 2 (Tiny Coders)

AGENDA

- Improvements from professor feedback
- Team Members
- Problem Statement
- Project Description
- Personas
- Minimal Viable Product (MVP)
- Technologies
- Architecture Diagram
- Sprint 3 Recap
- Product Backlog
- Sprint Backlog
- Metrics
- Retrospective
- Sprint 5
- Project Demo
- Application Demo
- Git-hub link
- Live Application Demo

MEET THE TEAM

Dharini Maanasa

Brunda Reddy

FRONTEND DEVELOPER

DBA

PROFESSOR FEEDBACK

PROFESSOR FEEDBACK

- Professor suggested us to add components to the Architecture diagram
- Our MVP was not clear and concise.
- User stories and acceptance criteria was misunderstood
- Change the animated images.
- Change Personas.
- Proper explanation of problem statement and project description.

IMPROVEMENTS MADE

- We Updated our Architecture diagram.
- We Focused on the things that are to be included as part of our MVP.
- We made changes in user stories and acceptance criteria.
- We have added ER diagram and made changes in TVC and Burndown Chart.
- Clear explanation of the technologies.

TEAM AGREEMENT

Team:
1)Maanasa Dharini
2)Sathwik Mundeti
3)Naresh Babu Chinta
4)Varun Reddy Duggimpudi
5)Brunda Reddy

TEAM AGREEMENT

- We makes sure team has clear objectives of the project.

- Make a list of all the tasks that need to be completed.

- Being engaged and stay committed to submit deliverables on time.

- Encouraging each other to complete the tasks given.

- Understanding what is expected and what needs to be delivered.

- Making sure every teammate providing the equal amount of contribution.

- Providing the feedback within the team to perform better.

PROBLEM STATEMENT

PROBLEM STATEMENT

A health casual who doesn't particularly care about calorie counting needs a way to get a good idea of how (healthily?) they're eating, because the other food tracking apps are too labor-intensive to use regularly or focus too much on metrics.

Food classification is a challenging problem due to the large number of food categories. Calorie estimation that helps in calculating number of calories in a recipe, food classification that brings out ingredients in a recipe, maintenance calories that help in calculating number of calories based on age, height and activity and recipe generation that helps us to create recipe from the set of inputs that we give are part of our project.

PROJECT DESCRIPTION

PROJECT DESCRIPTION

Project Title	Promoting healthy eating and balanced diet with Re-Define Me.
Team	2 Tiny Coders.
Brief Description	We are providing the customers a healthy living habits with proper nutrients and workouts with unique features according to the user customization.
How does it help the user	We provide the details of the dietitian, personal trainers, nutrients and the gyms nearby once the user register/subscribe.
Git-hub Link:	https://github.com/DhariniMansi/CS691.wiki.git

PROJECT DESCRIPTION

We want to provide a digital health and wellness web application designed to help users shed the pounds and get active, Nutrition Tracker, Water Tracker, Workout and Weight Tracker.

Operating from a freemium model, the platform offers users the opportunity to monitor and track their daily calorie intake, get personalized advice from a team of professionally qualified nutritionists and fitness experts and suggest proper diet flow to the user.

Using deep learning techniques, we are trying to implement all these features into our application.

FOOD CLASSIFICATION

- Food can be defined as any processed, semi-processed or raw product that is destined for human consumption.

- Processed foods have these elements in different compositions in order to give them textures, flavor, color and nutritional value.

- As for the solid elements that food contains, they are lipids, proteins, carbohydrates and their derivatives.

- It's multi-class classification problem to predict the 251 fine-grained food-categories.

RECIPE GENERATION

- Our design predicts ingredients as sets by means of a novel architecture, modeling their dependencies without imposing any order, and then generates cooking instructions by attending to both image and its inferred ingredients simultaneously.

- Interests in the automatic generation of cooking recipes have been growing steadily over the past few years thanks to a large amount of online cooking recipes.
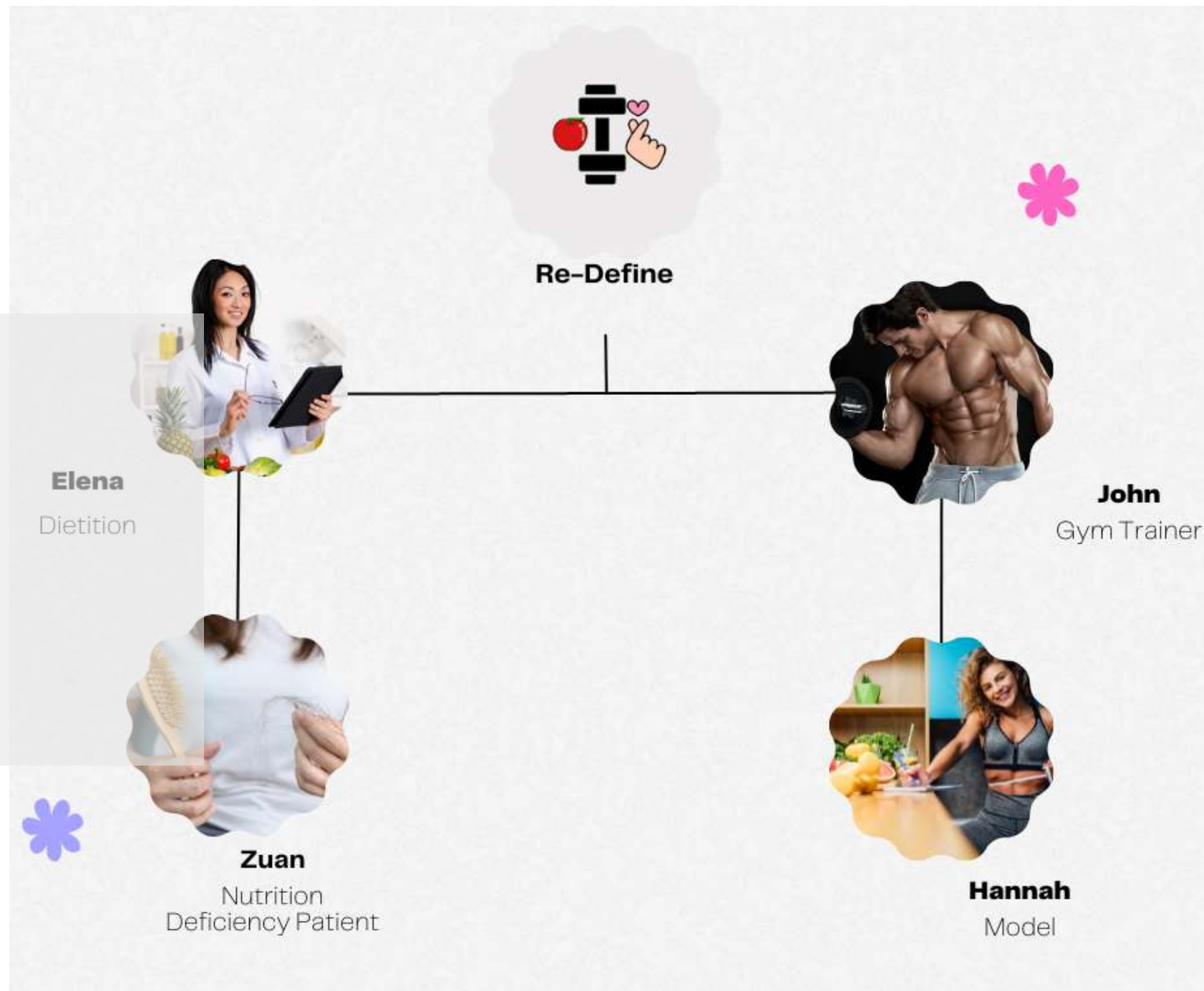
BALANCED DIET

- A balanced diet integrates daily consumption of all food groups.

- Dieting is the practice of eating food in a regulated way to decrease, maintain, or increase weight, or to prevent and treat diseases such as diabetes & obesity.

- As weight loss depends on calorie intake, different kinds of calorie-reduced diet, emphasizing macronutrients.

  Example: Low-fat, Low-carbohydrate, etc.

CALORIE ESTIMATION

- A balanced diet is one that contains all the essential elements that the human body needs.

- Carbohydrates, lipids, vitamins, minerals, proteins, fiber and water are all essential components in a well-balanced diet.

- A nutritious, well-balanced diet lowers the risk of disease and enhances general health.

- Formula to estimate calories - $0.24((fat * 37) + (protein*17) + (sodium *8) + (sugar * 17))$ = Total calories.

PERSONAS

Re-Define

Elena
Dietition

Zuan
Nutrition
Deficiency Patient

John
Gym Trainer

Hannah
Model

PROFILE

- **Name:** Elena

- **Age:** 32 years

- **Profession:** Dietitian.

- **Graduation:** She graduated with her doctorate from the University of Bridgeport School of Chiropractic.

- **Work Experience:** She has spent over 5 years in the healthcare industry and has a patients for understanding human biomechanics and she is registered with the Commission of Dietetics Registration (CDR).

- **Interests:** She loves long rides, cooking, Athletics and Human Performance.

- **Goals:** Her goal is to collaborate with the top EHR system handling companies to update the EHR system and need to hire few faculty who helps her in maintaining the data of clients.

PROFILE

- **Name:** Zuan

- **Age:** 26 years.

- **Profession:** Software Developer at Apple Inc.

- **Problem:** She is suffering from Nutrition Deficiency, lactose intolerance, has signs of B12 and suffering from dry skin, severe hair fall.

- **Treatment:** medication for malnutrition including supplementation, proper diet, lifestyle and eating disorder.

- **Work Pressure:** It is difficult for Zuan to handle her job and the work pressure there due to hectic schedule.

- **Goals:** As Calcium deficiency can reduce bone strength and lead to osteoporosis, which is characterized by fragile bones Zuan wants to take the supplements with food containing vitamins in order to maintain balance.

PROFILE

- **Name:** Alex.

- **Age:** 29.

- **Profession:** Gym Trainer

- **Fitness Level/Rating:** Best.

- **Experience:** Alex is the head coach of Mighty transformation program. And his passion is to help people change their lives in the simplest and most realistic way. He believe everyone deserves the right to good health and to be happy with themselves inside and out.

- **Interests:** Weights lifting, Dancing, Cycling, Volunteering, Hiking

- **Goals:** Alex is mindful of what his clients eat is just as crucial as their routine, in order to bring in healthy life and health mind. He wants to become established fitness professional. He helps his client to reach their individual goals with unique diet plans.

PROFILE:

- **Name:** Hannah.

- **Age:** 23.

- **Education:** She has a high school diploma in Arts and music performing arts, with a course in modelling workshop from New York Fashion Institute.

- **Profession:** Model and Youtuber with 1M subscribers..

- **Interests:** Hannah enjoys exercising, yoga, attending fashion workshops, shopping and painting.

- **Difficulties:** It is difficult for her to find work that pays well, dealing with criticism, and managing her time and finances.

- **Goals:** Being a public figure, Hannah decided to maintain proper health along with a healthy and nutrition diet. She wants to be a role model in her pursuing career.

MINIMUM VIABLE PRODUCT

TECHNOLOGIES

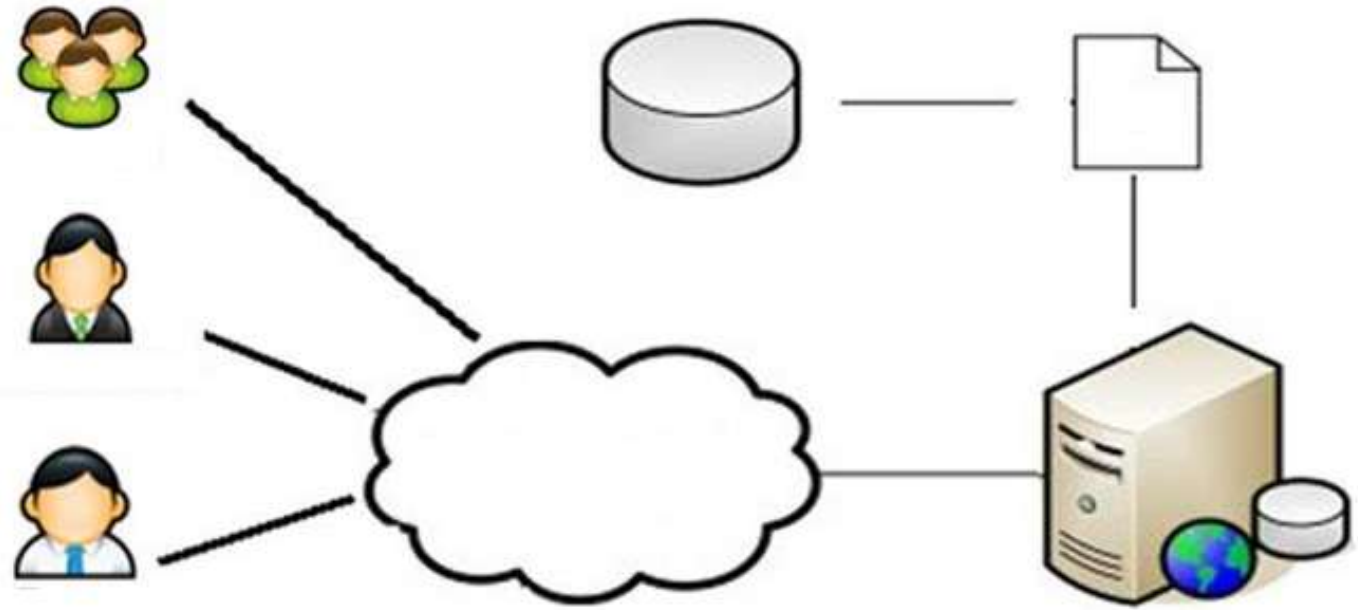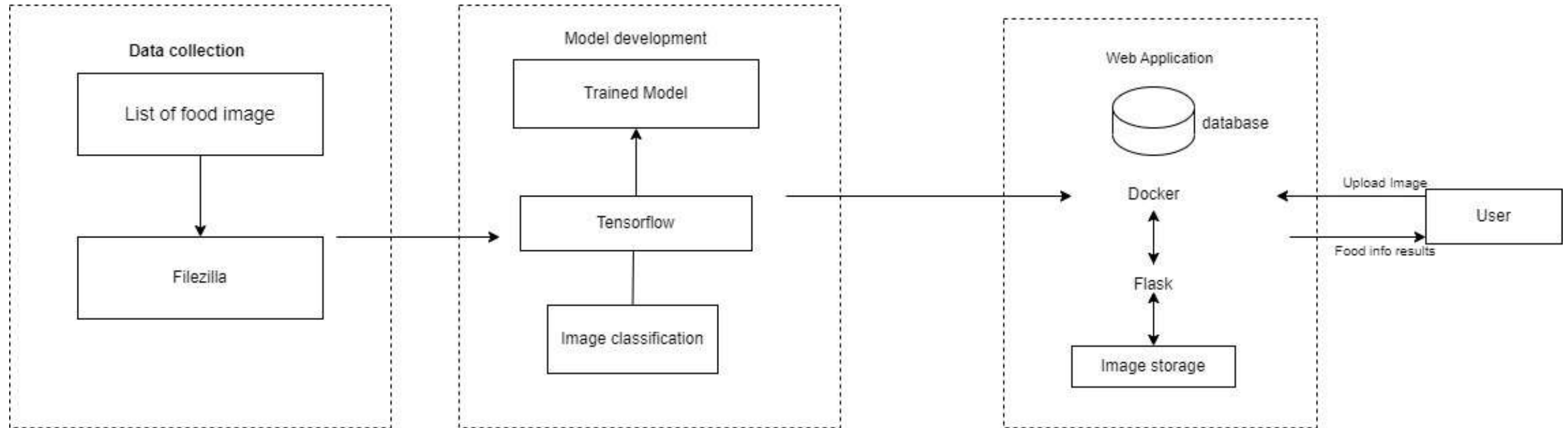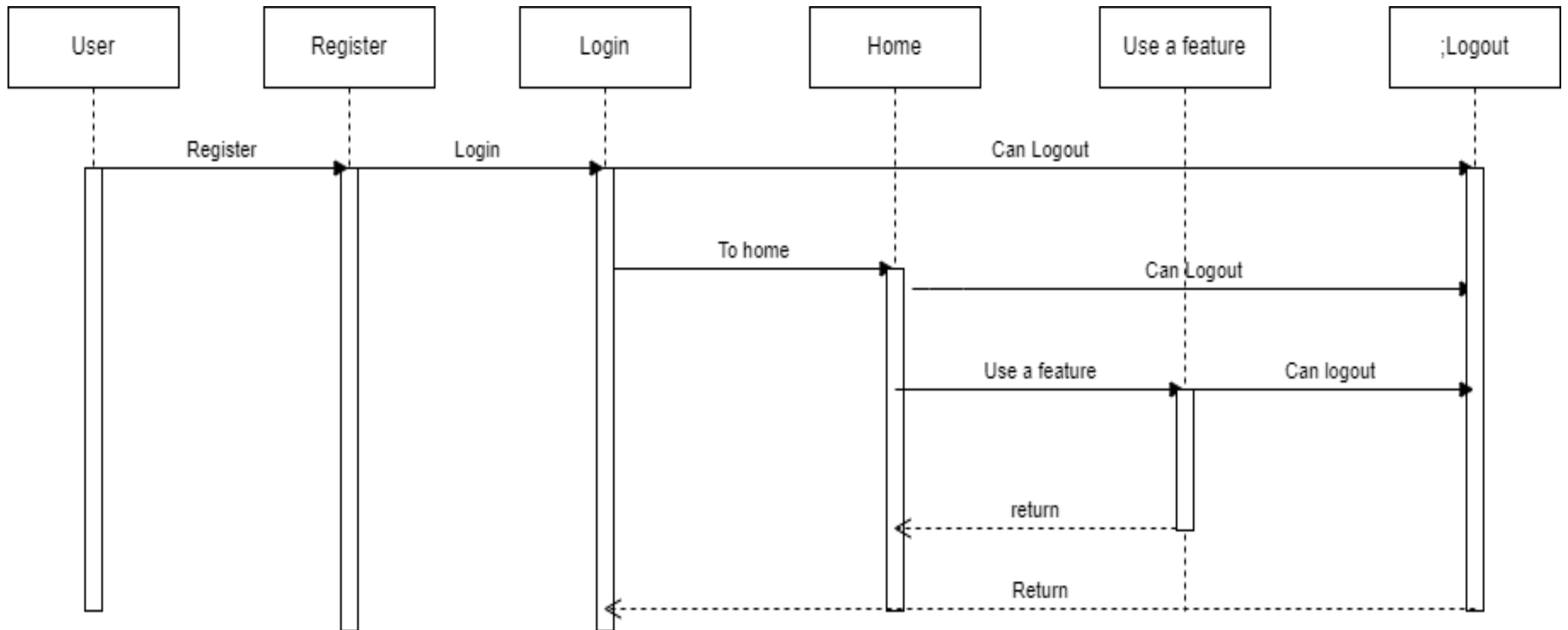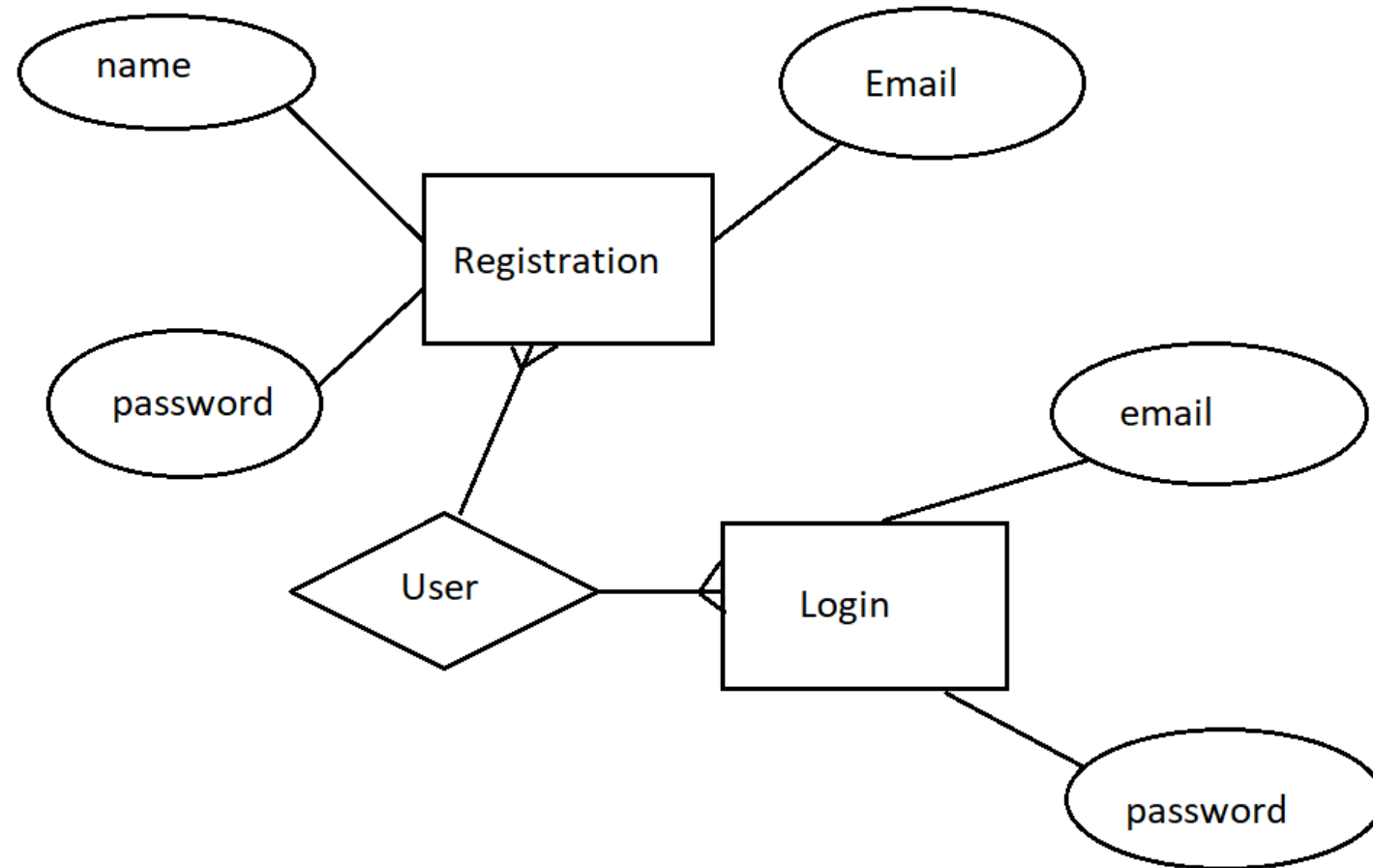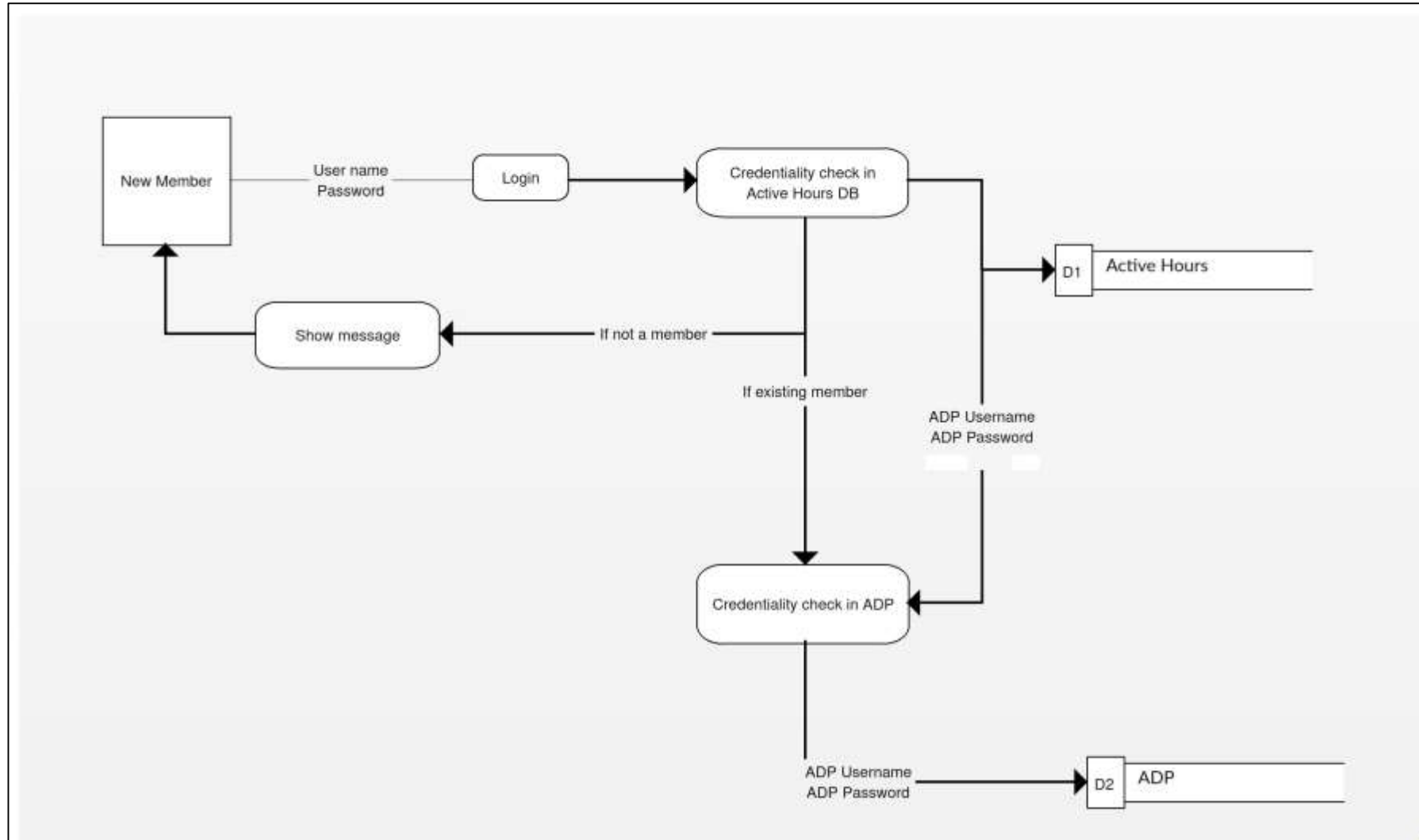|	
Front-End	React · JavaScript · npm
Backend/Server	Node.js · amazon web services · Express JS
Database	mongoDB
Testing	cypress.io
API	POSTMAN API PLATFORM · RapidAPI
Tools	Figma · chrome · Visual Studio Code

DIAGRAMS

ARCHITECTURAL DIAGRAM

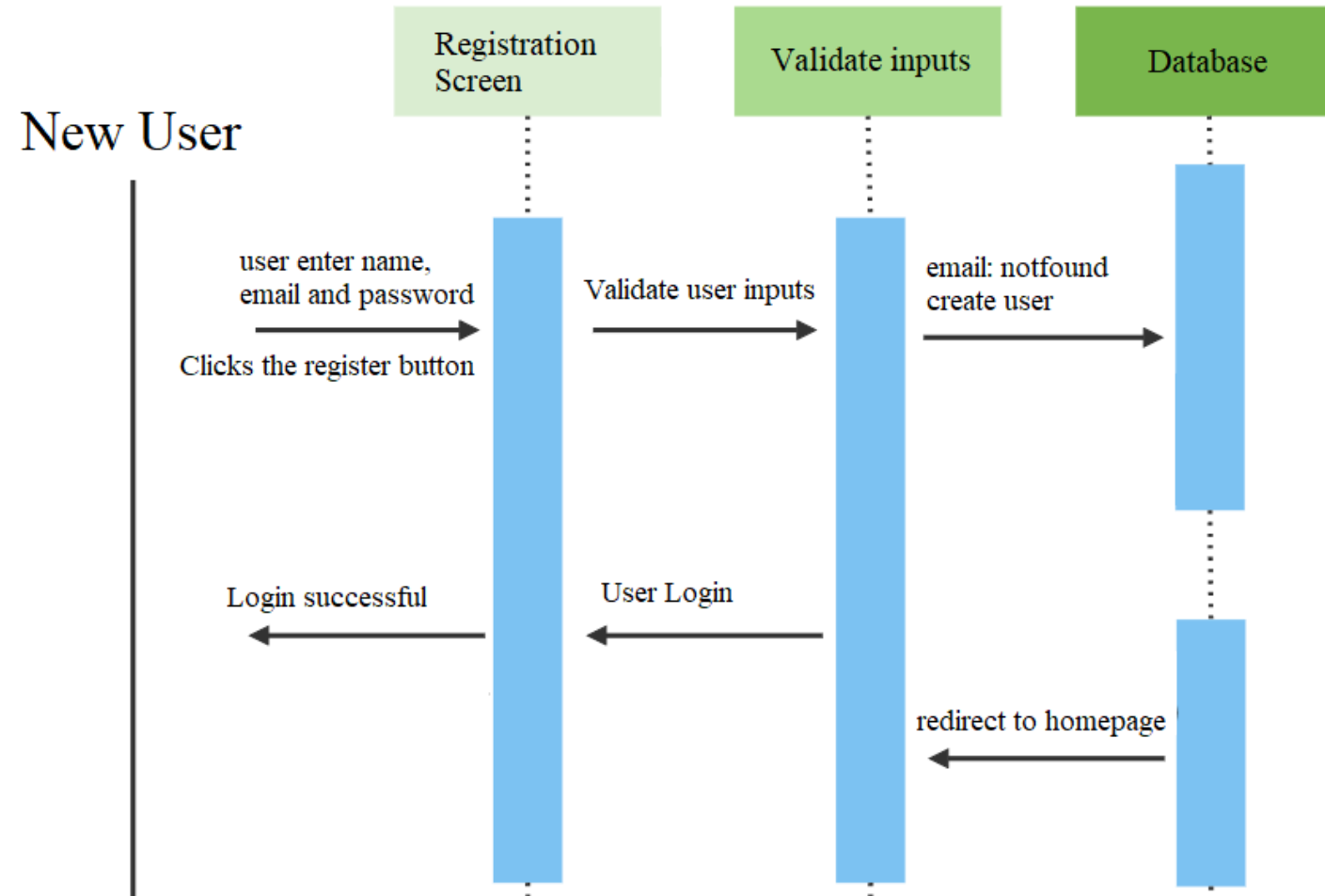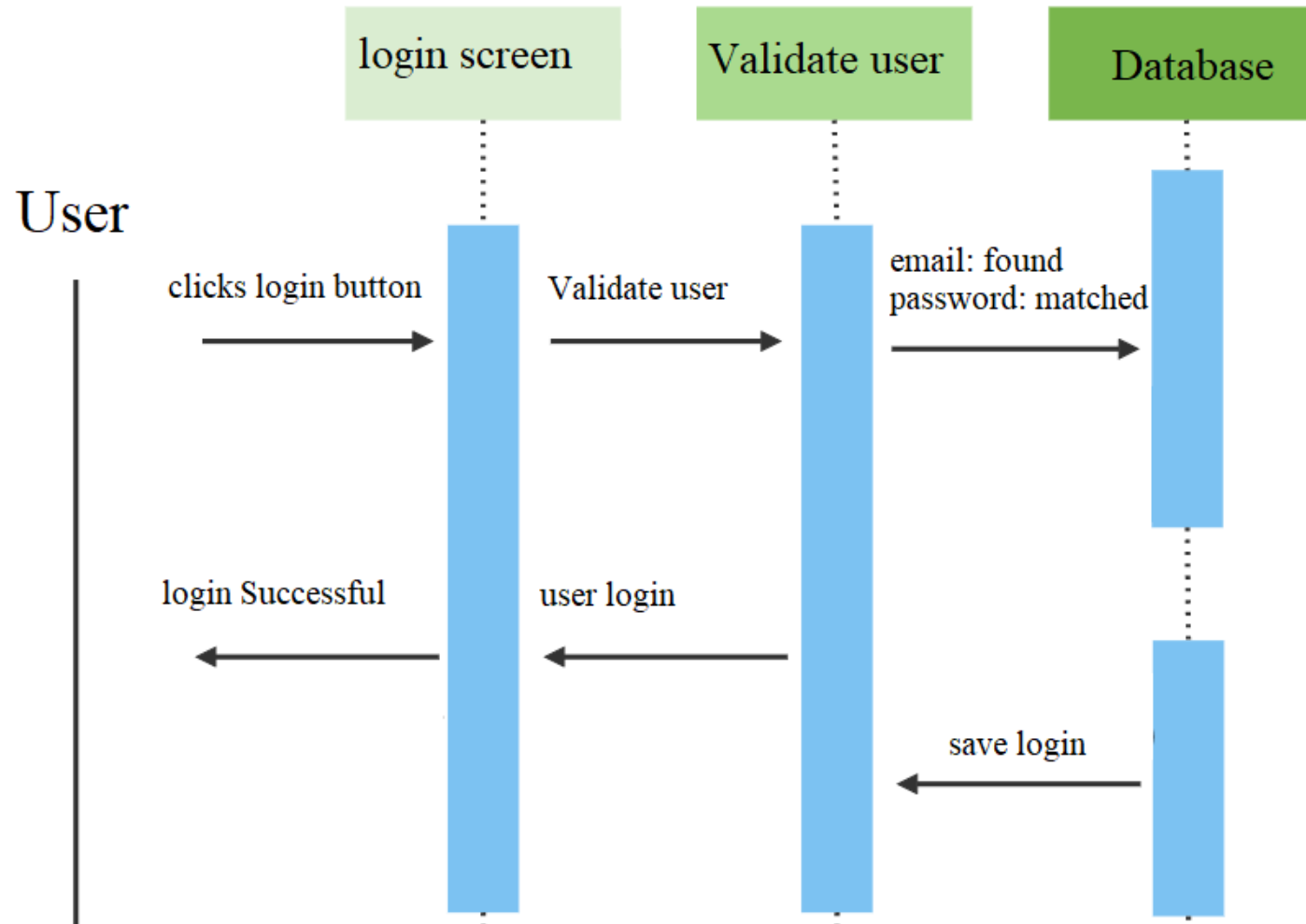# SEQUENTIAL ARCHITECTURAL DIAGRAM

ER DIAGRAM

DATA FLOW DIAGRAM

USER SEQUENCE DIAGRAM FOR NEW USER

USER SEQUENCE DIAGRAM FOR EXISTING USER

SPRINT 4 RECAP

SPRINT 4
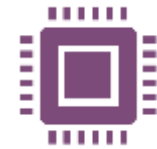## RECAP

Working on the tech paper.

Created a Sign/Login Page.

Added features for the Application

Worked on more user stories

Design backend & working on Database.

PRODUCT BACKLOG

PRODUCT BACKLOG

^SAT-11 As a new user I want to navigate through home page, features, about and contact

^SAT-12 As a user I should be able to scroll though the website and see all the features in it

^SAT-13   As a user I should navigate to all the features i.e., food classification, recipe generation, balanced diet and calorie estimation

^SAT-14 As a User I should be able to contact the by writing name, feature name and email and submit when I click submit button

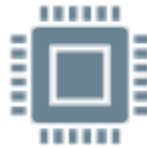^SAT-15 User can log out from the webpage by a single click

STORIES PLANNED FOR SPRINT 5

Working on the tech paper.

Add more features to the application

Working on the Application Documentation

Complete Product Backlog for last sprint

New stories that are planned for next sprint

SPRINT BACKLOG & USER STORIES

User Stories for the Sprint

Id	Test Cases	User Stories
SAT-9	AS a user I want to click features So that I navigate to features section	scenario when user wants to navigate to features section Given he click features button Then the system opens the features section
SAT-10	AS a user I want to click about So that I navigate to features section	scenario when user wants to navigate to about section Given he click about button Then the system opens the about section
SAT-11	AS a user I want to click contact So that I navigate to features section	scenario when user wants to navigate to contact section Given he click contact button Then the system opens the contact section
SAT-12	As a user I want to click logout So that I can log out of the website	scenario when user wants to logout Given he logout Then his information gets deleted

TEST CASES
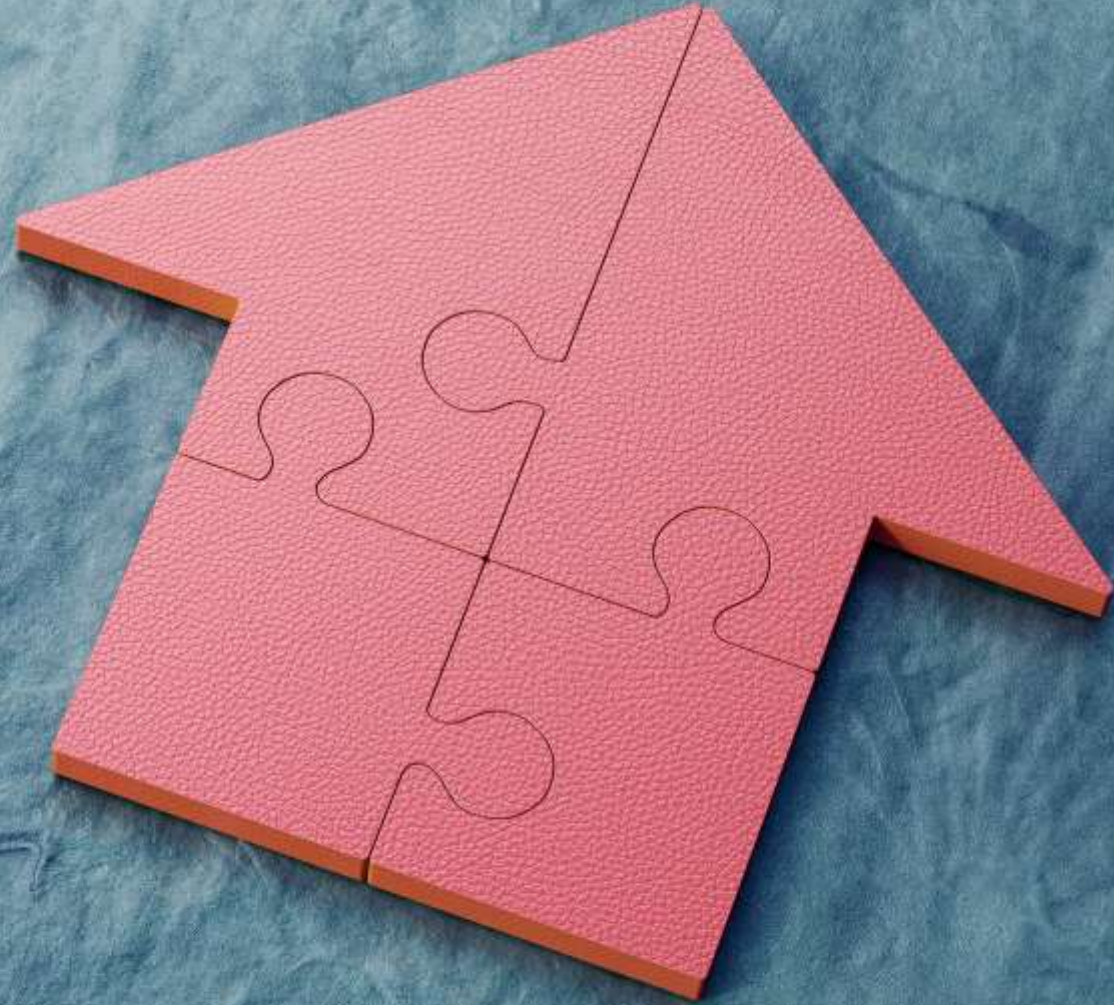
Test Id	Test Unit	Test Description	Test data	Expected output	Test result
SAT-1	Register	User registers with email and password	Email:test1@gmail.com Password:Test1@123	User Successfully registered	Pass
SAT-1	Register	User registers with email and password	Email:test1@gmail.com Password:Test1@123	User already exist with same username	Pass
SAT-3	Register	User registers with email and password	Email: test Password:Test@123	Email Invalid	Pass
SAT-1	Register	User registers with email and password	Email:test2@gmail.com Password:test12	Password should contain minimum of 8 characters	Pass
SAT-1	Register	User registers with email and password	Email:test2@gmail.com Password:test1234	Password should contain lower and uppercase letters and special character	Pass
SAT-2	Login	User Logins with email and password	Email:test1@gmail.com Password:test1@123	User Logged in successfully	Pass
SAT-2	Login	User logins with email and password	Email:test2@gmail.com Password:test1@123	Invalid email	Pass
SAT-2	Login	User logins with email and password	Email:test1@gmail.com Password : test2@123	Invalid password	Pass
SAT-5	Home	User navigates through the catalogue of features	Email:test1@gmail.com Password : test2@123		Pass
SAT-5	Home	User clicks on service catalogue and finds about features	Email:test1@gmail.com Password : test2@123	User finds about what these features are capable of	Pass

Test Id	Test Unit	Test Description	Test data	Expected output	Test result
SAT-6	Features	User clicks each feature and is directed to more details of that feature		The more details of the feature is displayed	Pass
SAT-5	Home	User clicks About		Opens about section	Pass
SAT-9	About	User clicks linkedIn icon		Redirected to website maker linkedIn profile	Pass
SAT-9	About	User clicks instagram icon		Redirected to website maker instagram	Pass
SAT-19	Contact	User enters name, feature name and message	Name: name test1 Feature: featurename1 Message: can you tell me more	Your message has been successfully sent	Pass
SAT-19	Contact	User enters name, feature name and message	Name: Feature: featurename1 Message: can you tell me more	Please enter your name	Fail
SAT-19	Contact	User enters name, feature name and message	Name: name test1 Feature: Message: can you tell me more	Please enter the feature	Fail
SAT-19	Contact	User enters name, feature name and message	Name: name test1 Feature: featurename1 Message:	Please enter the message	Fail
SAT-5	Home	User clicks the sign out button to log out		You have logged out of the website	Pass

STORIES COMPLETED

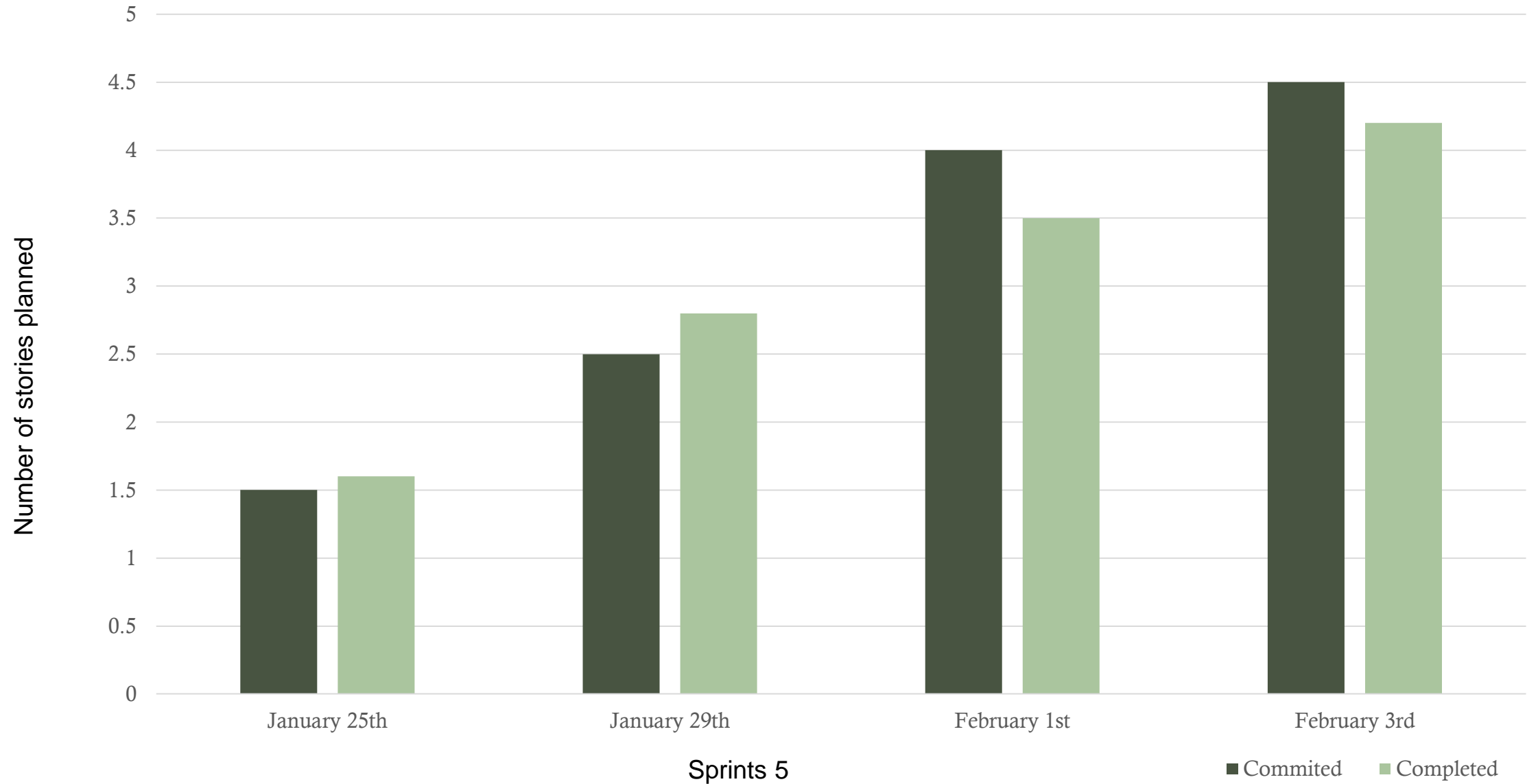| |
|---|
| ^SAT-1 As a new user I want to register using email and create password |
| ^SAT-2   As a new User if I enter wrong Invalid e-mail, I want to get an alert |
| ^SAT-3   As a new user I should be able to add my contact details |
| ^SAT-11 As a User I want to get informed when I enter invalid password so that I can enter correct one |
| ^SAT-9   User could recover his password in case if he/she forgot his password |
| ^SAT-10 User can choose a security questions to retrieve his account information |
| ^SAT-4 As User I want to enter his information like age, height, weight, activity status so that I can get recommendations based on my Inputs |
| ^SAT-5 As a User I want to navigate to all the services listed in the application so that I become familiar with the application |

User Stories for the Sprint

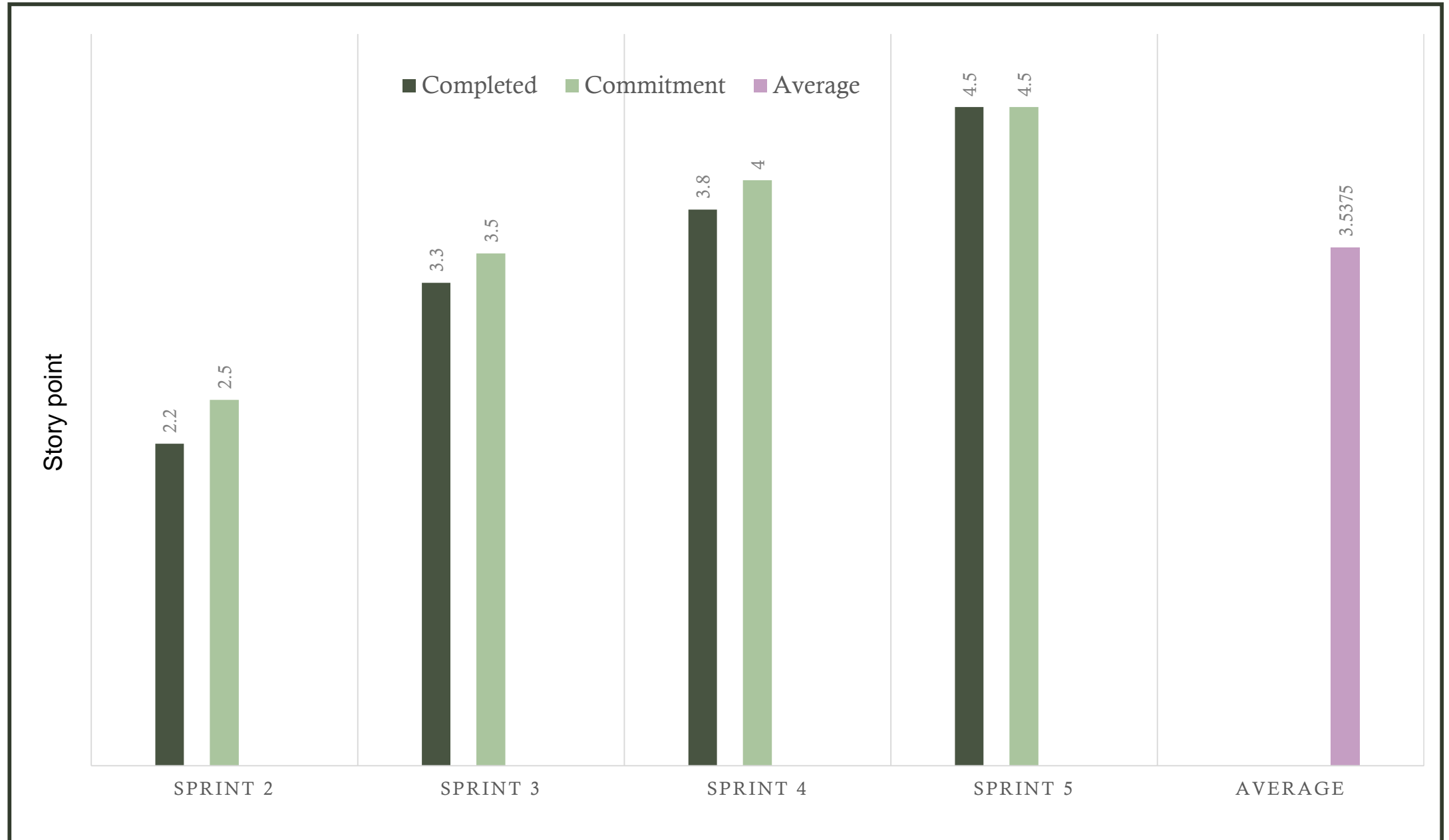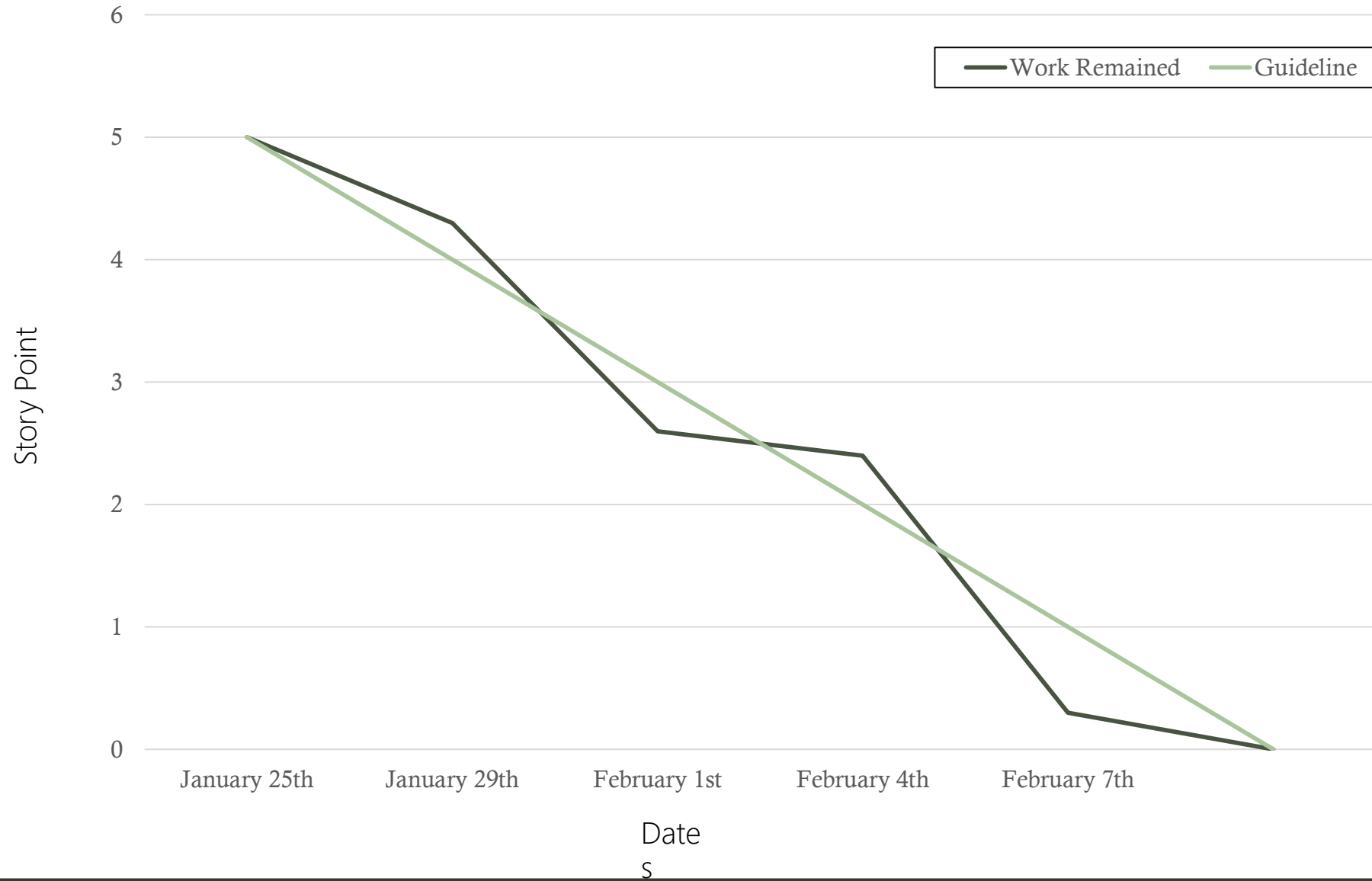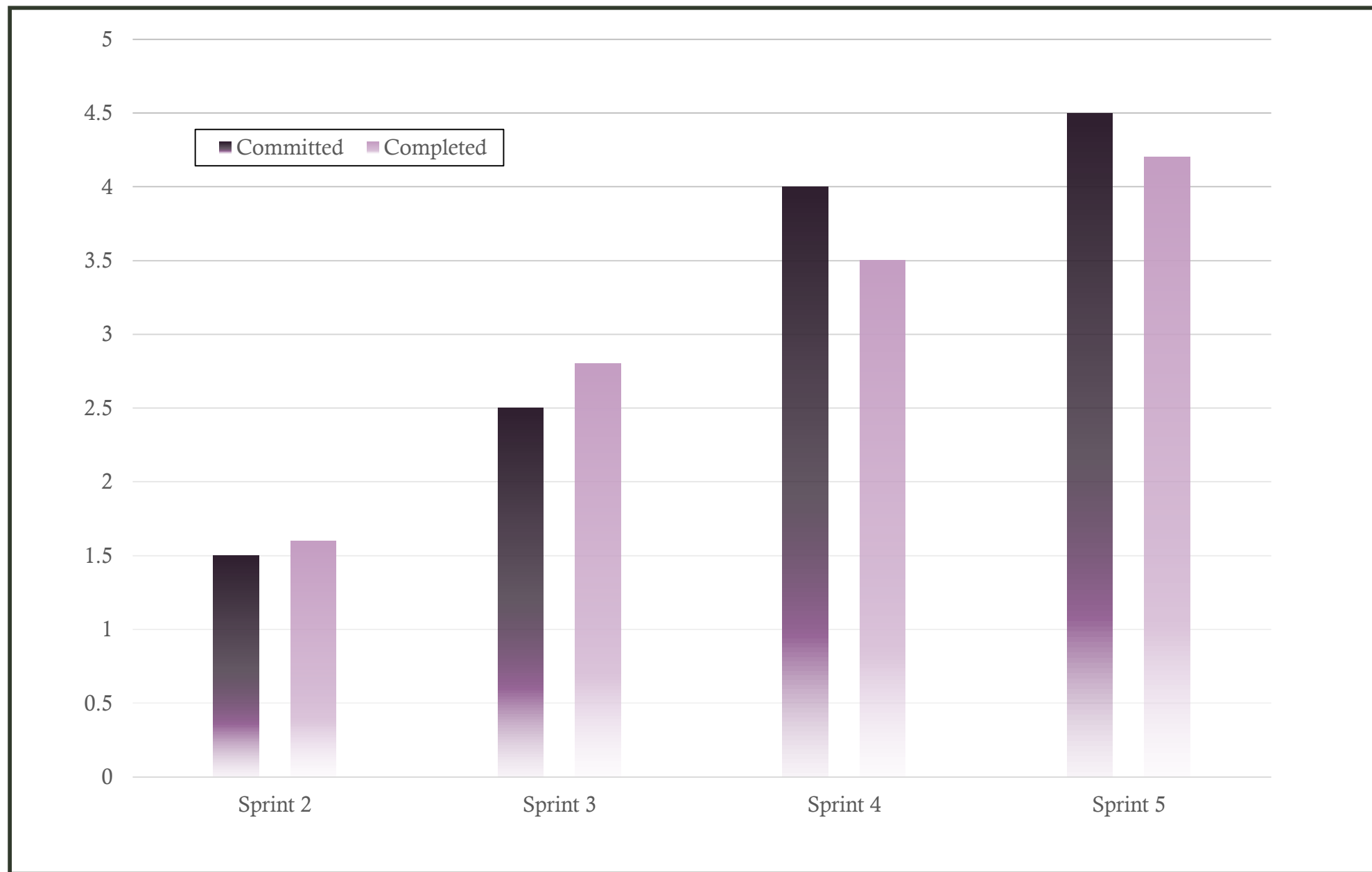| Id	Test Cases	User Stories
SAT-1	As a new user I want to register using email So that I can login to the application	Scenario when user wants to register Given he registers Then his information gets stored And he can login using email and password
SAT-03	As a new user I want to login to the application, but I enter wrong credentials So that I get alerted using a popup message that my credentials are invalid	Scenario when user wants to login Given he enters wrong credentials Then he gets notified by an alert to enter valid credentials. And the system asks him to enter right information
SAT-4	As a new user I want to enter inputs like age, height, weight ,activity so that I get recommendations based on my information	Scenario when user wants to give inputs Given he gives inputs and press submit Then his information gets stored And The system displays his information
SAT-06	As a new user I want to navigate using a search on the web page So that I can navigate quickly	Scenario when user wants to navigate quickly Given he uses search-bar on top of the application Then he can navigate quickly using search-bar

METRICS

TEAMS HISTORICAL VELOCITY (AVERAGE)

Story point

Completed ■ Commitment ■ Average

	SPRINT 2	SPRINT 3	SPRINT 4	SPRINT 5	AVERAGE
Completed	2.2	3.3	3.8	4.5	
Commitment	2.5	3.5	4	4.5	
Average					3.5375

BURN DOWN CHART

COMPLETED/COMMITTED RATIO

RETROSPECTIVE

❑ What went well?

- Meetings went according to the scheduled manner and the team members complemented each other well.

- Priorities were clear and members took them into account.

- The collaboration was great in our paired sessions.

- We were able to produced the new and challenging project proposal.

- We tried to finish the deliverable on time
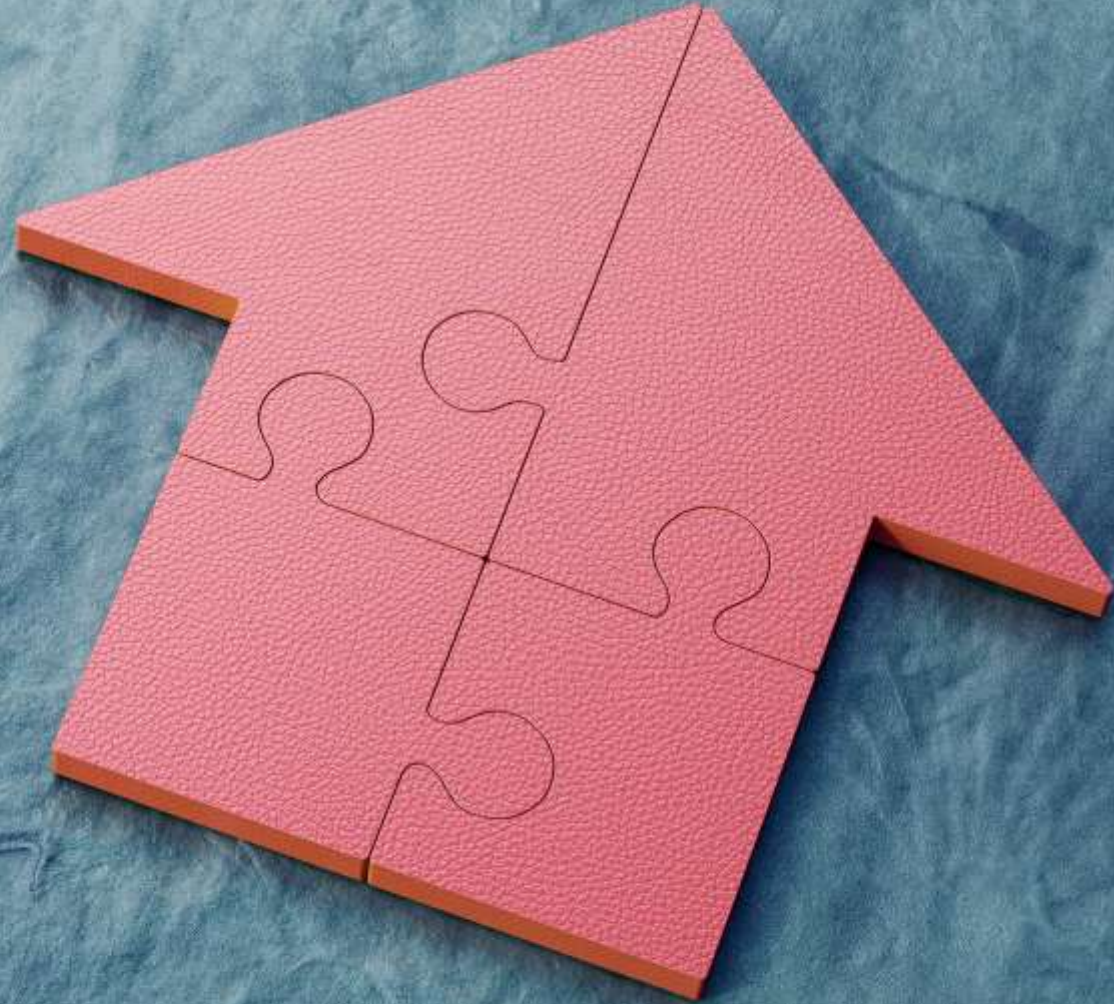
- We worked on Mongo DB.

❑ What didn't go well?

- Took more time to work on the login page.

- We need to add more user stories ideas.

- User Stories late in the sprint.

- Took time because we worked on new technologies

- A deadline on when things need to be completed and getting updates on it

  in every meeting was not met.

- Tried hands-on on the technologies that we have decided.

❏ What we did to improve?

- Need to improve time-management and spend more time to work on task to avoid last minute hassle.

- Tried to stay committed to deadlines and improve communication between teammates.

- Complete working on the MVP and start focusing on sprint 3.

- Each members need to take initiative and work on the deliverable .

- Research on deep learning algorithms and learn how to do Integration.

SPRINT 6

Id	Acceptance criteria	Summary
SAT-5	As a new user I want to navigate to all the services in the application So that I get familiar with all the services of the application	Scenario when user wants to navigate Given he wants to get familiar with all the services in the application Then user can get to know all the services in the application
SAT-9	As a user I want to reset my password if I forgot one So that I can login again	Scenario when user forgets his password Given he changes his password Then the system stores his new password And he can login with his new password
SAT-8	As a new user I want to edit my personal information So that I get recommendations based on changed information	Scenario when user want to edit his information Given the customer navigates to information. Then he changes his information. And he submits the information.

APPLICATION SCREENSHOTS
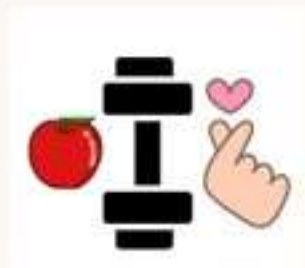
Stay healthy with

RE-DEFINE ME

HEALTH & FITNESS

Find the healthiest food for your body, track the right amount of calories to have in your meals.

Calorie Calculator   🔍 Recipes

Calorie Calculator

This Calorie Calculator can be used to estimate the number of calories a person needs to consume each day.

Age

15 - 80

Gender

○ male   ○ female

Height

130 - 230   cm

Weight

40 - 160   kg

Activity

Sedentary: little or no exercise   ⌄

Clear values   ● Calculate

Results

Maintain weight

2701
Calories / day

Mild weight loss
0.25 kg / week

2451
Calories / day

Weight loss
0.50 kg / week

2201
Calories / day

Extreme weight loss
1 kg / week

1701
Calories / day

Mild weight gain
0.25 kg / week

2951
Calories / day

Get in touch

email
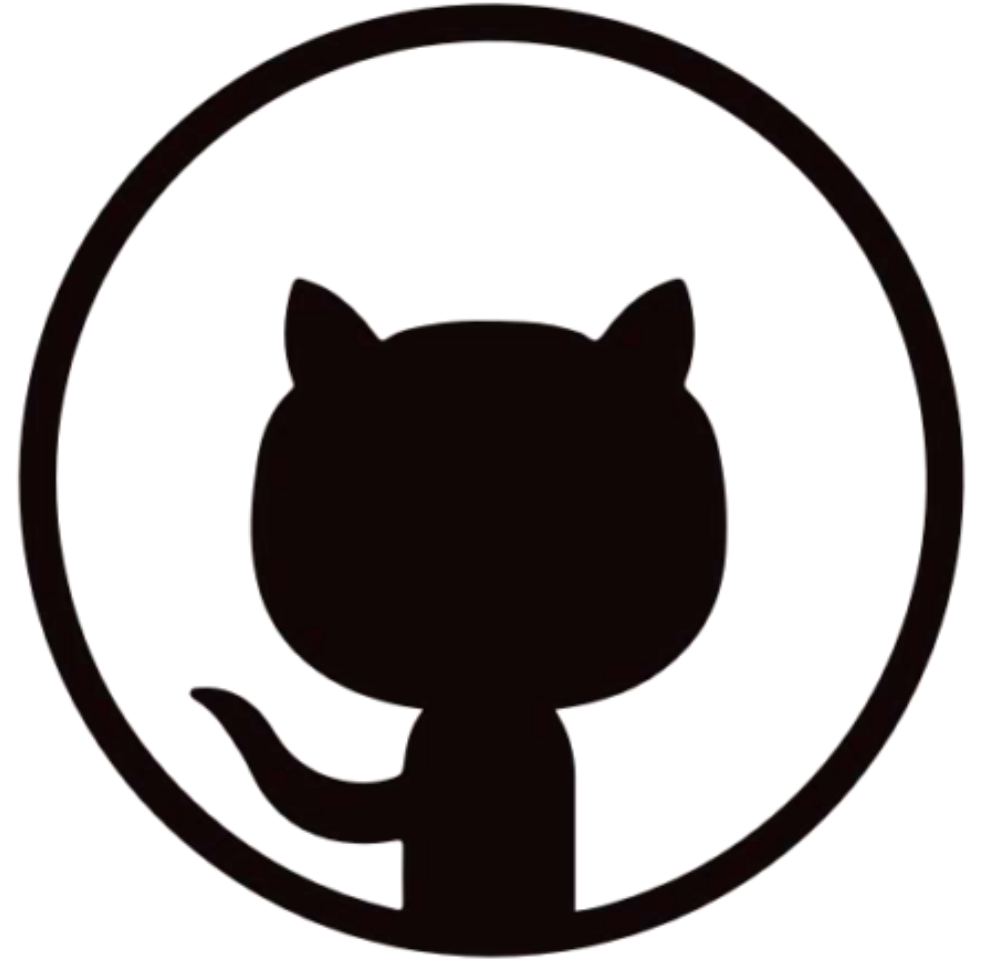youremail@email.com

name
your name

subject
Your subject

message
Enter your message here

Send

Git-hub Link

https://github.com/DhariniMansi/CS691.wiki.git

HAPPY EATING

THANK YOU