



PROMOTING
HEALTHY EATING
&
BALANCED DIET

AGENDA:

- ✓ Team Members
- ✓ Improvements from professor feedback
- ✓ Project description
- ✓ Problem statement
- ✓ Minimal Viable Product (MVP)
- ✓ Technologies
- ✓ Architecture diagram
- ✓ Sprint2 Recap
- ✓ Product backlog
- ✓ Sprint backlog
- ✓ Metrics
- ✓ Retrospective
- ✓ Sprint4
- ✓ Project Demo
- ✓ Live application demo
- ✓ Git-hub link
- ✓ Live Application Demo

MEET THE TEAM



SATHWIK
MUDENTI
BACKEND
DEVELOPER



VARUN REDDY DUGGIMPIDI
BACKEND DEVELOPER



NARESH BABU CHINTA
QA/TESTER



DHARINI MAANASA

FRONTEND DEVELOPER



BRUNDA REDDY

DBA

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:

- People like to taste different cuisine and choose the most appealing food. They often are concerned about diet restrictions such as gluten-free, vegan, ketosis, peanut-allergy, and calorie count.
- We would like to provide an easy solution to making health and good foods that fit your daily calorie consumption limit.



PROJECT DESCRIPTION

The project focuses on four major problem statements:

- ✓ Food Classification.
- ✓ Recipe Generation.
- ✓ Balanced Diet.
- ✓ Calorie Estimation.

From the image of food captured, we determine the classification of food (such as donut, samosa, biriyani), identify the calorie count and describe the cooking procedure of the food. With this information, an informed decision can be made on making the item or not.

Food Classification:

- Food classification is a challenging problem due to the large number of food categories, high visual similarity between different food categories.
- It's multi-class classification problem to predict the 251 fine-grained food-categories.

Recipe Generation:

Recipe Generation problem is resolved by three major sub-networks.

- Food understanding (Extracting ingredients)
- Multi-label classification (Detecting the food title)
- Conditional text generation (NLP)(Preparing recipe)

The pipeline extracts the image representation with resnet-50 encoder and obtain the ingredients. Recipes are generated with identified ingredients into human readable format.

Balanced Diet:

- 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.

Calorie Estimation:

From the ingredients generated from Recipe module, we have computed the Calorie for the dish.

Each recipe provided us the nutritional value for every 100 grams.

- Fat/ Saturation - Every gram of fat has 37 kilojoules.
- Protein - Every gram of protein has 17 kilojoules.
- Sodium - Every gram of sodium has 8 kilojoules.
- Sugar - Every gram of sugar has 17 kilojoules.

Every kilojoule has 0.239006 calories.

Using this data we used the following formula to estimate calories.

$$0.24((\text{fat} * 37) + (\text{protein} * 17) + (\text{sodium} * 8) + (\text{sugar} * 17)) = \text{total calories.}$$



PERSONA

S



Elena

Dietitian



Catherine

Nutritionist



John

Gym Trainer



Zuan

Nutrition
Deficiency Patient



Grace

Model



ELENA

DIETITIAN

- Elena is an expert Dietitian.
- She is 33 years old beautiful dietitian.
- She is a qualified health professional who helps patients with nutrient deficiency.
- She is registered with the Commission of Dietetics Registration (CDR)
- She has a license to practice as diet and nutritional consultant.



CATHERINE

NUTRITIONIST

- She is a certified Nutritionist .
- She works with healthy people to promote healthy eating habits.
- She helps in creating awareness to prevent diseases related to nutrient deficiencies.
- She uses an online health assessments to curate a daily supplement routine tailored needs.
- Catherine is smart enough to understand the people's health condition and helps to get medications, supplements to them.



ZUAN

NUTRITION DEFICIENCY PATIENT

- Zuan is 24 years old who is suffering from Nutrition Deficiency
- She has signs of B12 and suffering from dry skin, severe hair fall and brittle nails.
- She need awareness about a good diet and healthy food habits.
- She needs treatments including supplementation, change in diet, lifestyle and eating disorders.



JOHN

GYM TRAINER

- John is a successful personal trainer in one of the best gyms.
- He have a good knowledge about what his clients eat is as important as their training regimen.
- He helps his client to reach their individual goals.
- John knows having the right mix of calories and macros from whole foods is most important.
- He make an individual diet plan for his clients.



GRACE

MODEL

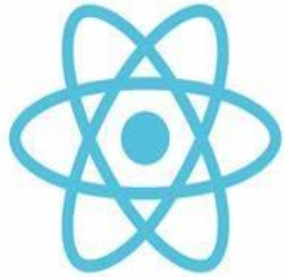
- Grace is 22 year - young and an upcoming model.
- Grace loves to be active and physically fit.
- She is very much concerned about the food she eats.
- She spends 2 hours a day in gym.
- She follows a proper diet provided by her trainer.

MINIMAL VIABLE PRODUCT

We would Like to Implement following features as a part of our MVP

- User registration
- Login
- Home Page
- Display all the features on the home screen of the Application
- Implement a particular feature called Maintenance Calorie Calculator using API

TECHNOLOGIES



React JS



TensorFlow



Flask

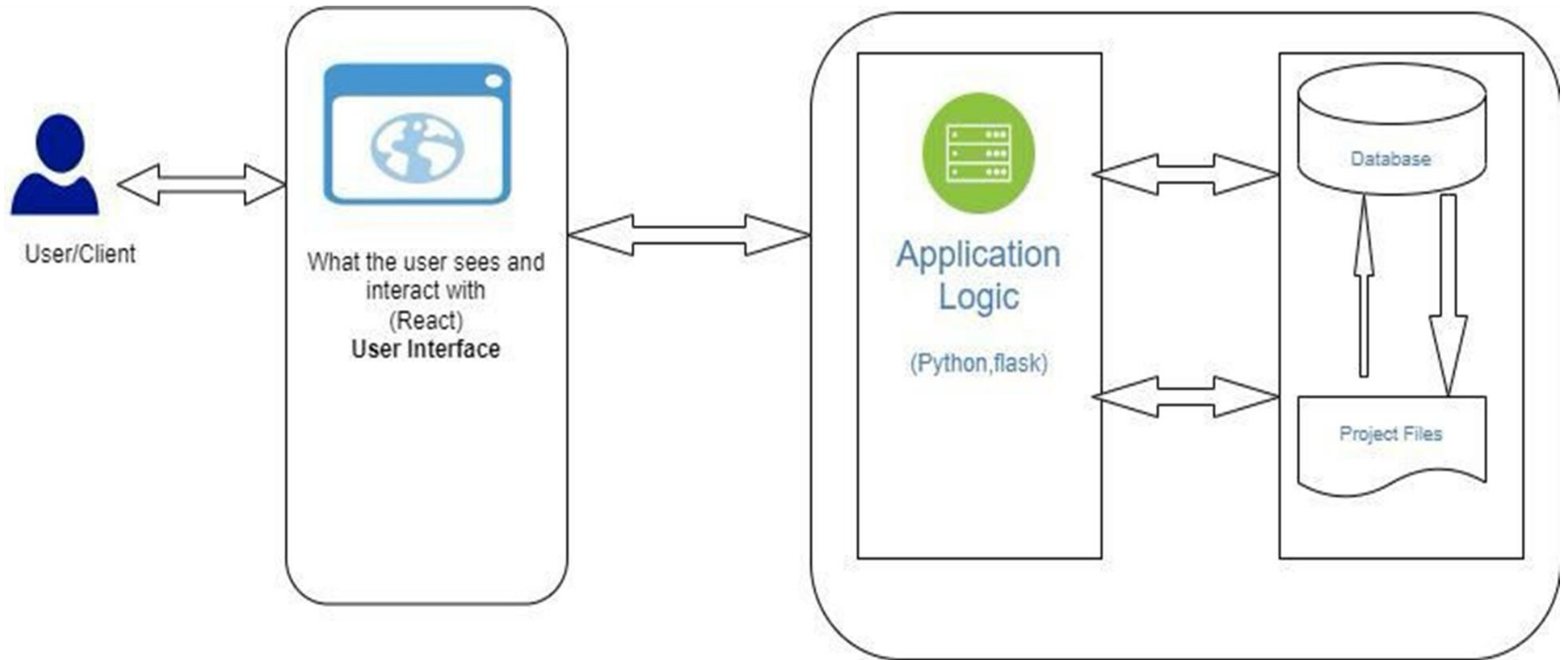


python

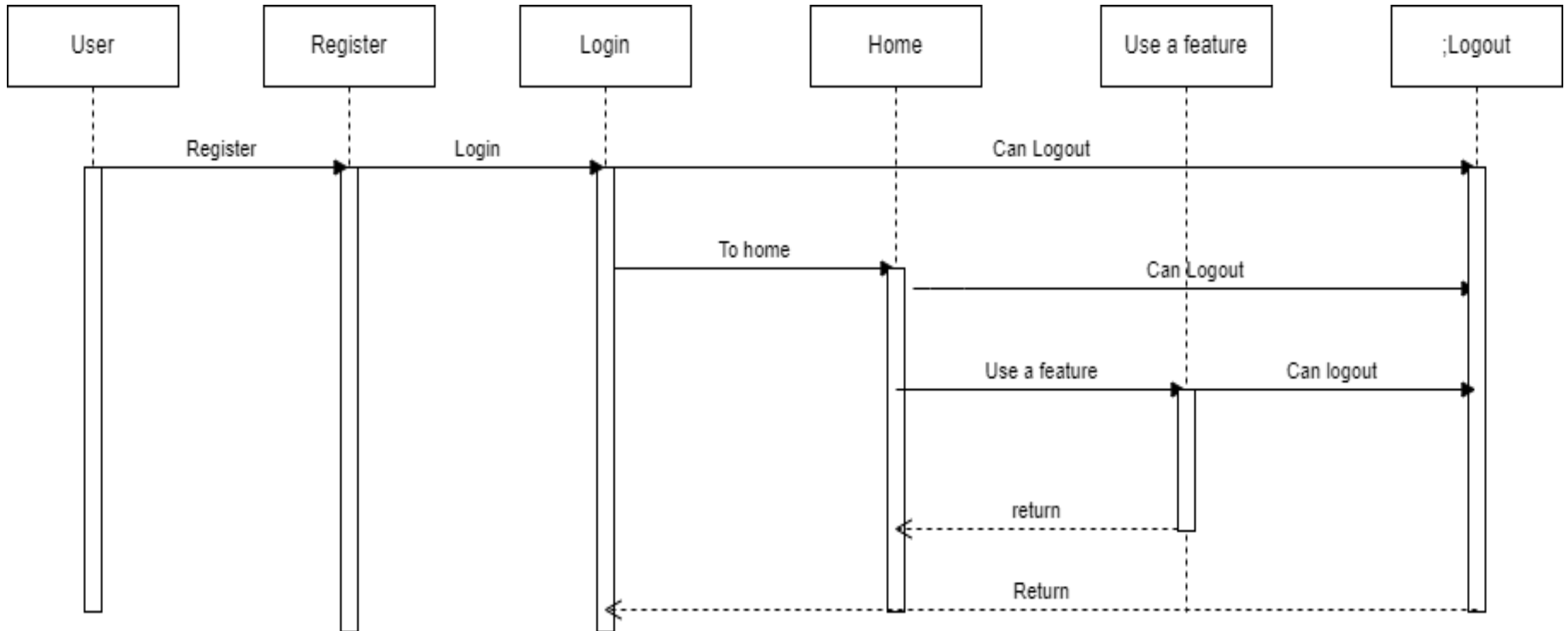
TECHNOLOGIES



ARCHITECTURAL DIAGRAM



SEQUENTIAL ARCHITECTURAL DIAGRAM



SPRINT 2 RECAP



We need to complete the MVP.



Need to create a Login Page.



Improvements made from professor's feedback.



Product Backlog.



Stories that are planned for sprint.

SPRINT 3



Work on the
Draft Paper.



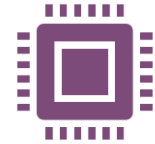
Created a
Sign/Login
Page.



Work on more
user stories.



Created a new
Architectural
Diagram



Design Backend
and Work on
Database.

PRODUCT BACKLOG

PRODUCT BACKLOG

^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 email I want to get an alert

^SAT-3 As a new User I want to

^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 can recover his password in case if he 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

SPRINT BACKLOG & USER STORIES

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-11	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-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

TEST CASES

Test case for sign-up

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			Pass
SAT-5	Home	User clicks on service catalogue and finds about features		User finds about what these features are capable of	Pass

STORIES COMPLETED

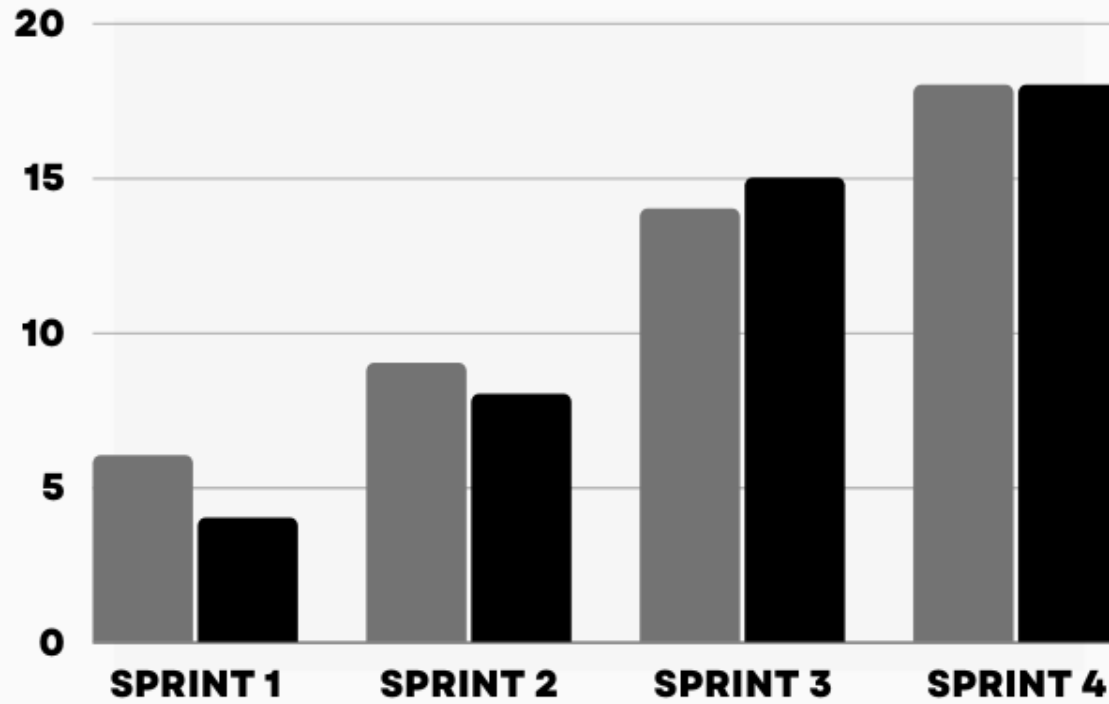
Id	User story	Acceptance Criteria
SAT-1	As a new user I want to register using email So that I can login to the application	scenario when user wants to register Given he registers Then his information gets stored And he can login using email and password
SAT-11	As a new user I want to login to the application, 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-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

STORIES NOT COMPLETED

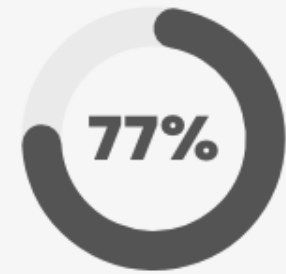
Id	Acceptance criteria	Summary
SAT-4	As a new user I want to enter inputs like age, height ,weight ,activity so that I get recommendations based on my information	Scenario when user wants to give inputs Given he gives inputs and press submit Then his information gets stored And The system displays his information
SAT-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.

METRICS

TEAM VELOCITY CHART



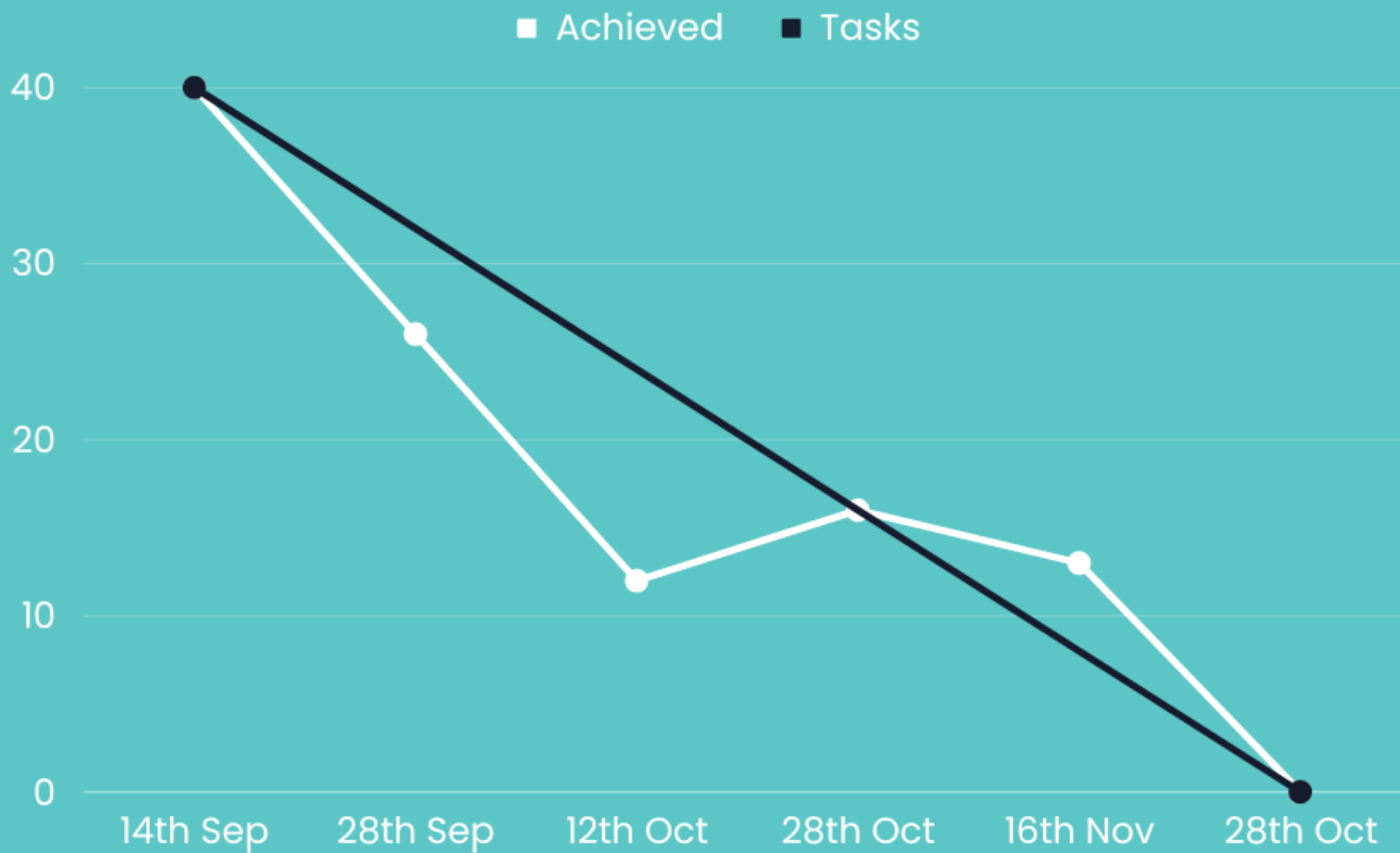
PREDICTED



WORK DONE



Burndown Chart





RETROSPECTIVE

□ What went well?

- Meetings went according to the scheduled manner and the team members complemented each other well.
- We tried to finish the deliverable on time
- We worked on MongoDB

❑ What didn't go well?

- Took more time to work on sign-up and login page
- Team needs to be more focused about deadlines and submissions.
- Team is still unaware of

❑ Next steps?

- Each members need to take initiative and work on the deliverable .
- Research on deep learning algorithms and learn how to do Integration.

SPRINT - 5

Stories Planned for Sprint 4

ID	Product Backlog
SAT-4	As a new user I want to enter my inputs like age,height,weight,activity so that I can get recommendations based on my information
SAT-5	As a new User I want to navigate to all the services in the application so that I can get familiar with the services of the application
SAT-9	As a new user I want to click on the services so that I get to know what is the service capable of .
SAT-8	As a new user I want to edit my personal Information so that I can get recommendations based on my Information

APPLICATION SCREENSHOTS

Welcome Back!

Stay connected to stay healthy

SIGN IN

Create Account

f

G

in

or use your email for registration

Name

Email

Password

SIGNUP

Sign In



or use your account

dharinimaanasa@gmail.com

.....



[Forgot Your Password](#)

SIGN IN

Hello, Friend!

Enter your details and start your day
with healthy habits

SIGN UP

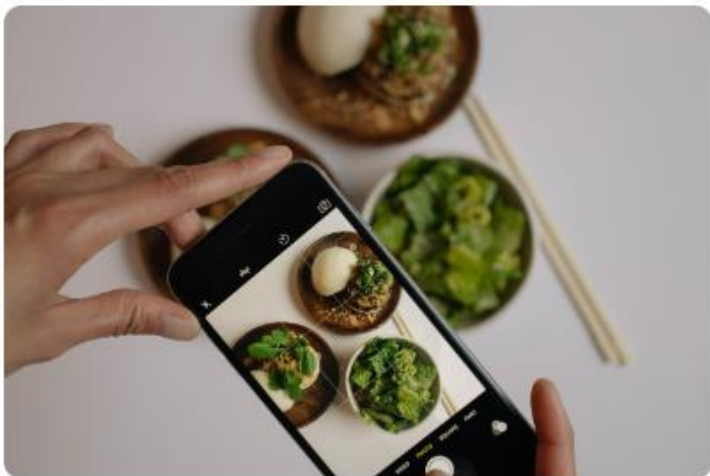
BACK TO HOME



RE-DEFINE **ME**

HEALTH & FITNESS

Features



Git-hub Link

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





HAPPY EATING
THANK YOU