



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
- ✓ Github link
- ✓ Live Application Demo

# IMPROVEMENTS MADE FROM PROFESSOR FEEDBACK

Professor feedback	Improvement
Professor suggested us to add components to the Architecture diagram	We Updated our Architecture diagram
Our MVP was not clear and concise	We Focused on the things that are to be included as part of our MVP
User stories and acceptance criteria was misunderstood	We made changes as suggested by professor



MEET THE TEAM





SATHWIK MUDENTI

BACKEND DEVELOPER



VARUN REDDY DUGGIMPIDI

BACKEND DEVELOPER 2



NARESH BABU CHINTA

QA/TESTER



DHARINI MAANASA

FRONTEND DEVELOPER



BRUNDA REDDY

DBA



# TEAM RESPONSIBILITIES

- ✓ 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.

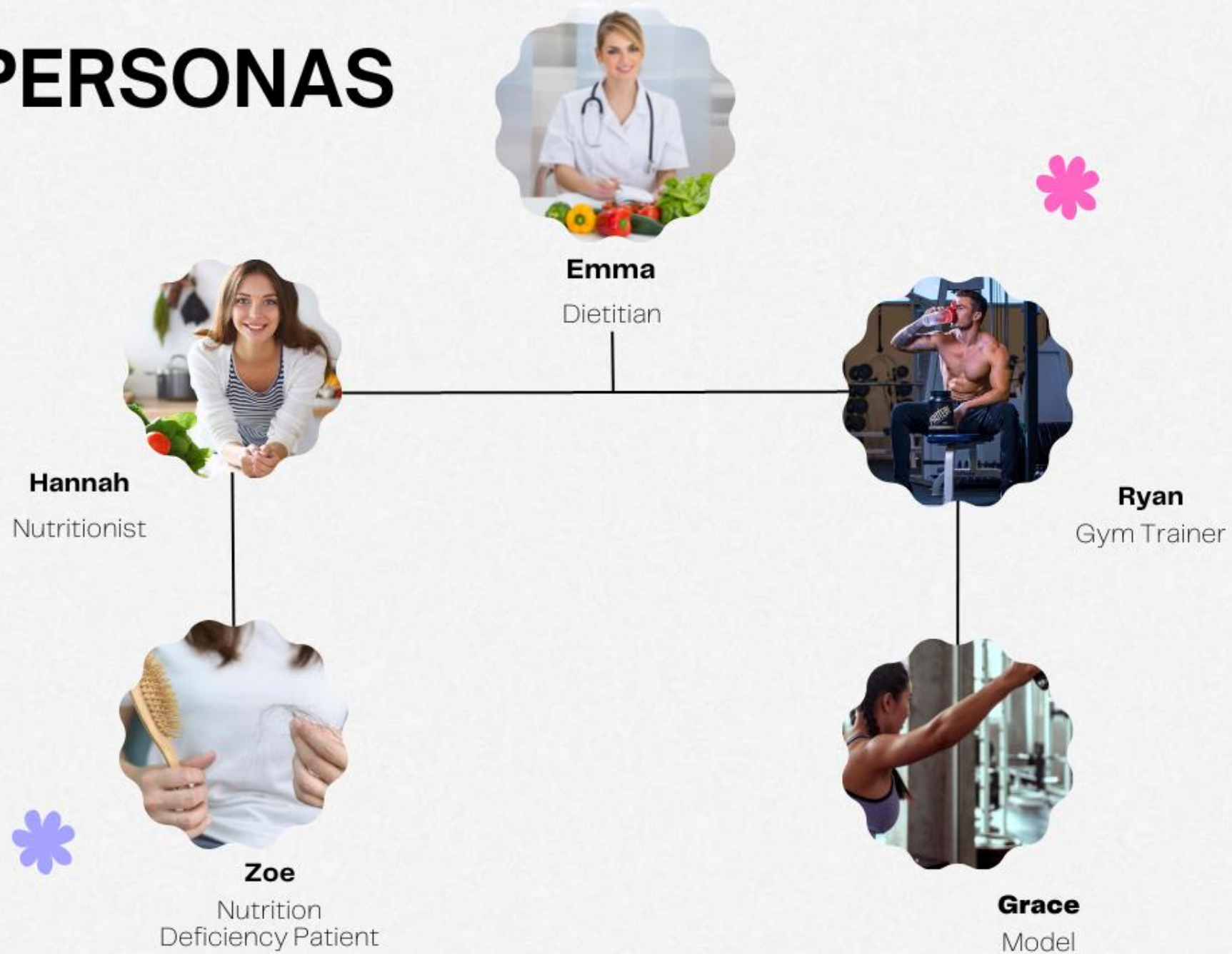
Every kilojoule has 0.239006 calories.

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

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



# PERSONAS





# 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.

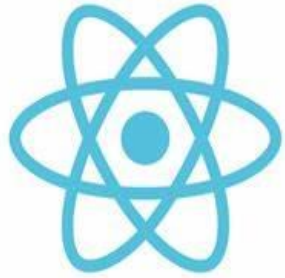
# MINIMAL VIABLE PRODUCT

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



# TECHNOLOGIES



**React JS**



**TensorFlow**



**GitHub**



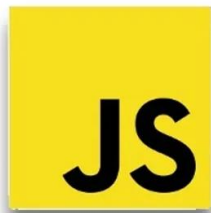
**Flask**



**python**

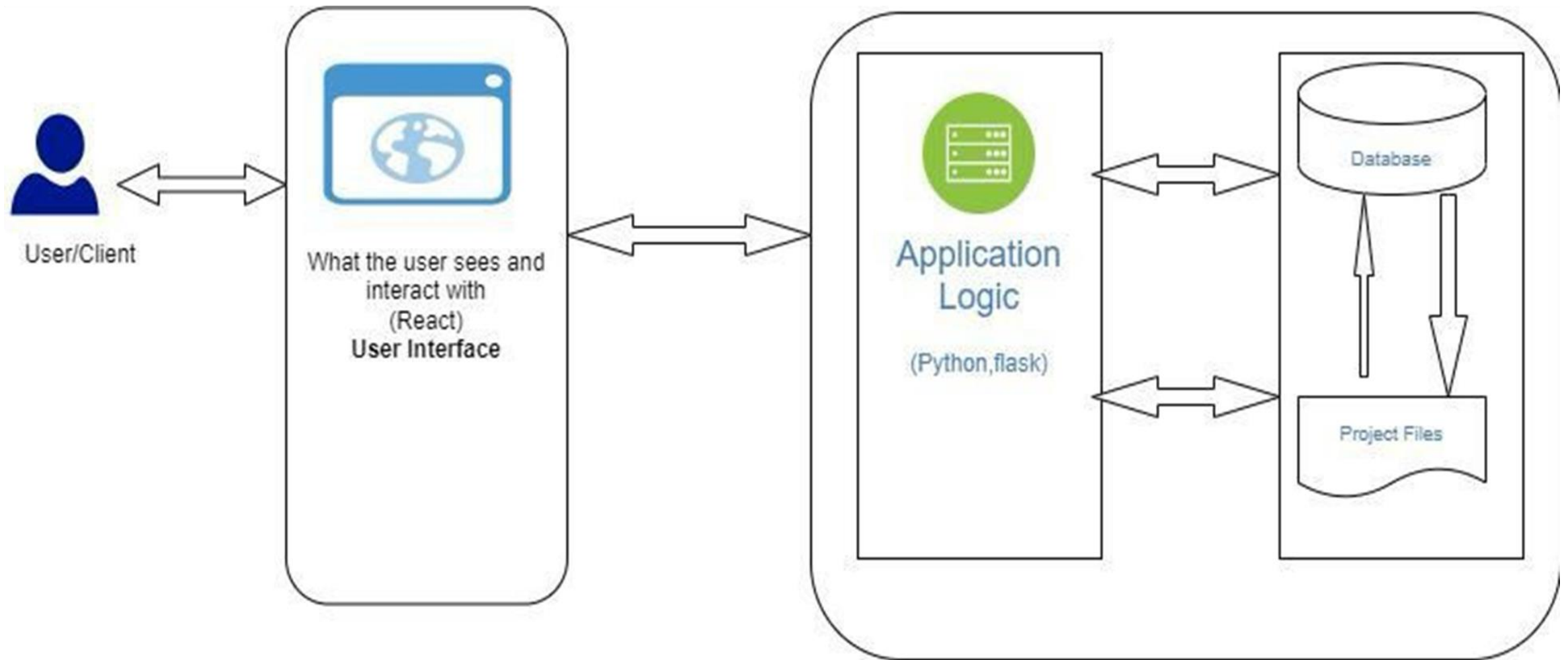


Express

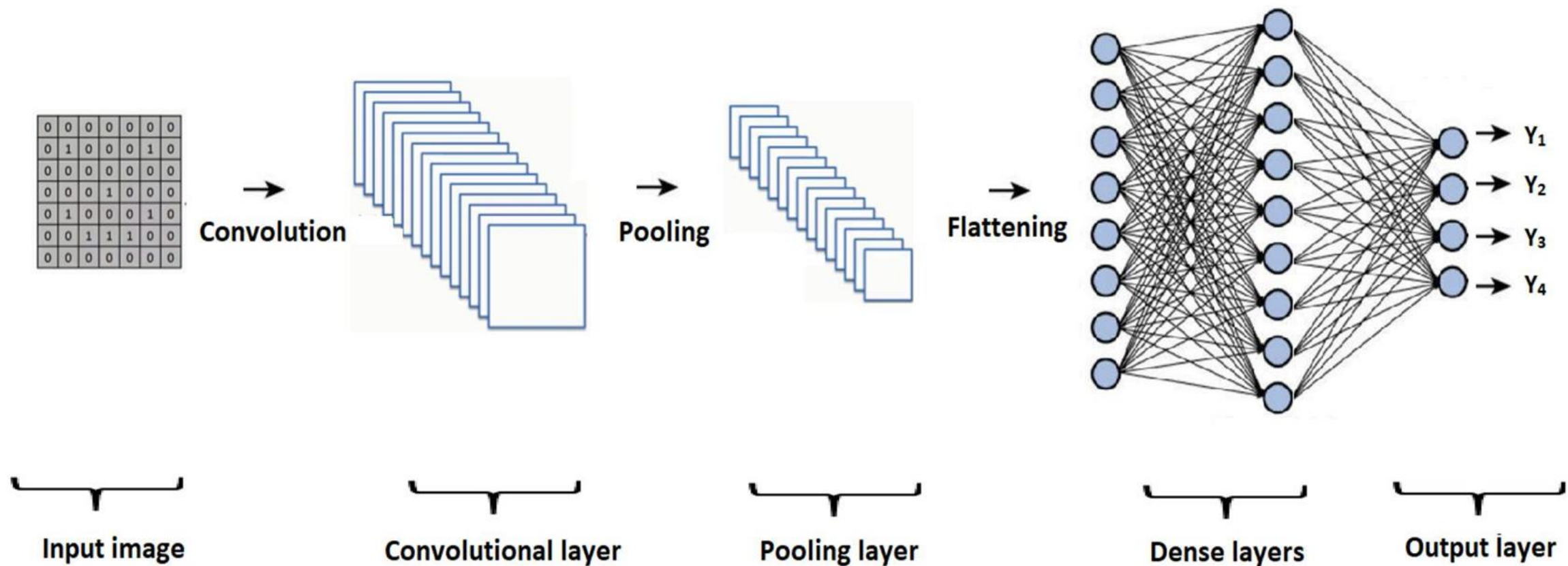


**mongoDB**

# ARCHITECTURAL DIAGRAM



# ARCHITECTURAL DIAGRAM

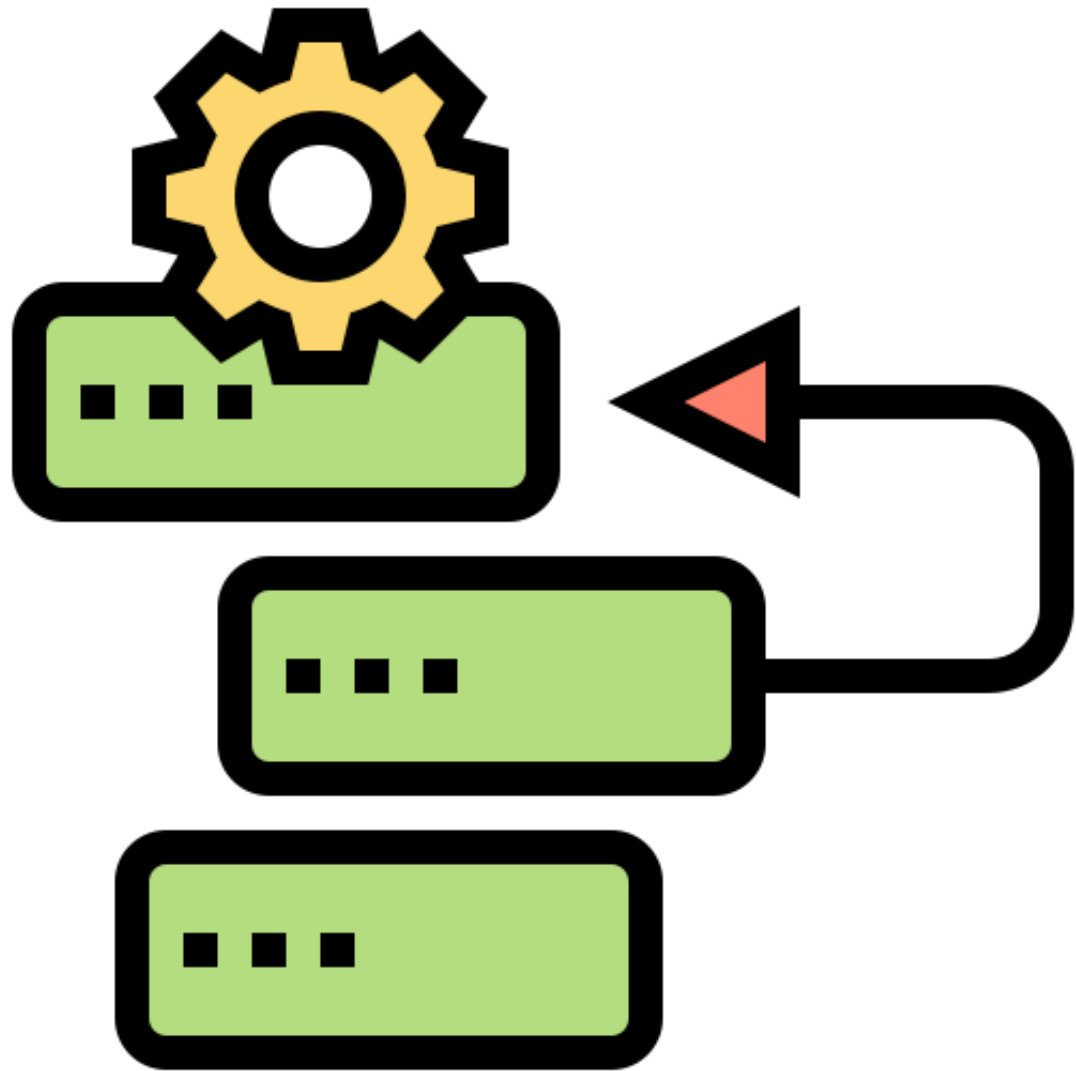


# SPRINT 2 RECAP

- 1) We need to complete the MVP.
- 2) Need to create a Login Page.
- 3) Improvements made from professor's feedback.
- 4) Product Backlog.
- 5) Stories that are planned for sprint.

## SPRINT 2 Vs SPRINT 3:

- 1) Work on the Draft Paper.
- 2) Create login pages
- 3) Work on more user stories.
- 4) Created a new Architectural Diagram
- 5) Design Backend and Work on Database.



PRODUCT  
BACKLOG

**^SAT-1 User can register using email and create password**

**^SAT-2 User can login using his credentials**

**^SAT-3 Sending alert to the user when entered invalid email**

**^SAT-11 User gets an alert if he enters invalid password**

**^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 User can enter his information like age,height,weight,activity status**

**^SAT-5 User can navigate to all the services listed in the application**

**^SAT-6 User can search on the website**

**^SAT-7 User can view his personal information**

**^SAT-8 User can edit his personal information**



# SPRINT BACKLOG

# Tasks for the Sprint

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

# TEST CASES

### Test case for sign-up

Test case	Test-data	output
Enter email	xyz@example.com	
Enter password	Abc@123	
Submit		On clicking submit if the email and password are valid then user is registered
Email validation	xyz@example.com	If email is invalid, it should prompt user to enter valid email
Password validation	Abc@123	If password does meet required length or it is not strong enough user is asked to enter strong password

### Test case for Log-in

Test cases	Test data	Output
Enter Email	Xyz@example.com	
Enter password	Abc@123	
Click Login		After clicking log-in the user is logged in to home page .If email or password is not matched with registered information then user is prompted to enter correct information

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



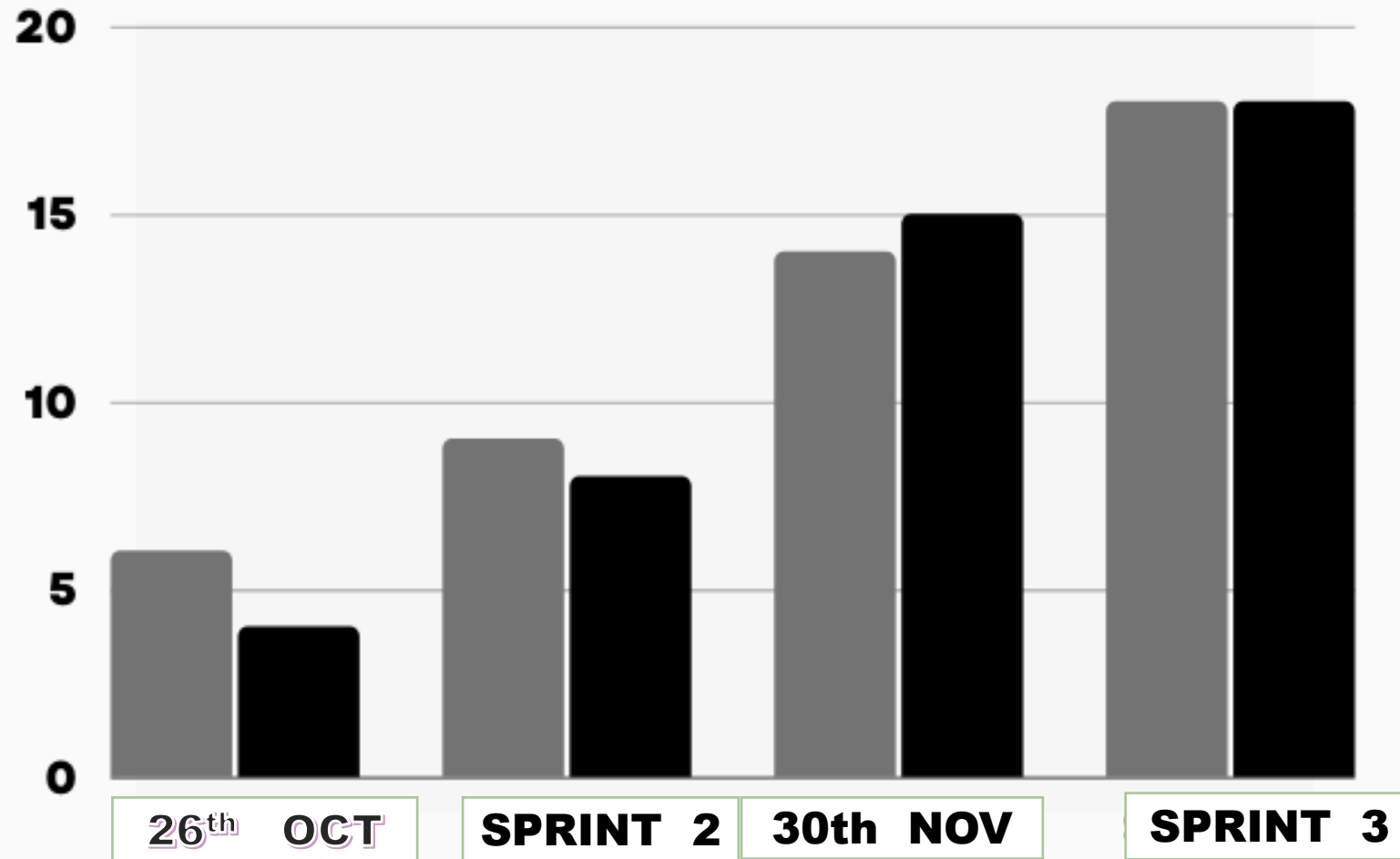
STORIES NOT COMPLETED

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



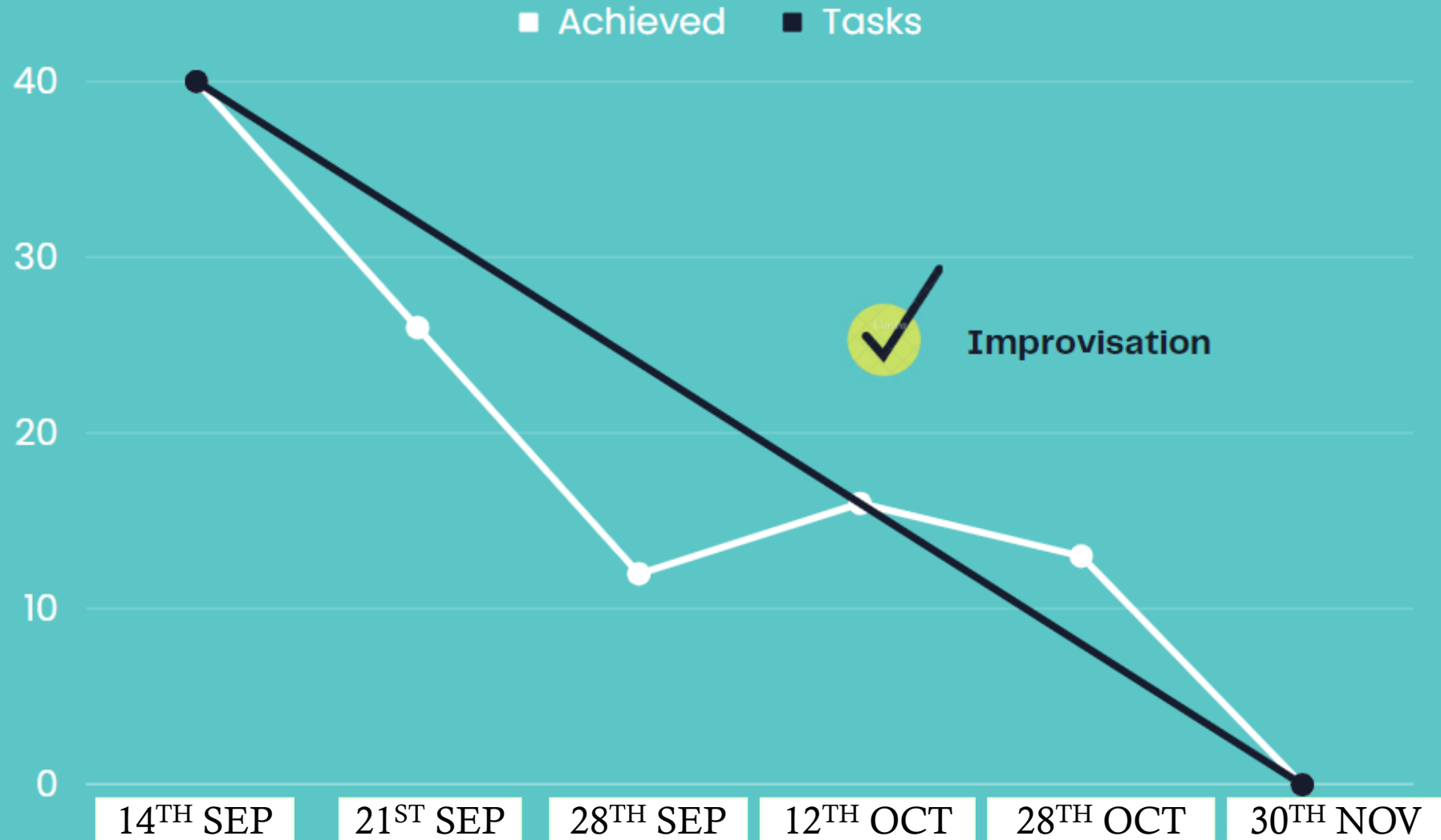
PREDICTED



WORK DONE



# Burndown Chart





RETROSPECTIVE



## □ What went well?

- Meetings went according to the scheduled manner and the team members complemented each other well.
- We were able to produced the new and challenging project proposal.
- Tried hands-on on the technologies that we have decided.

❑ What didn't go well?

- Took more time to work on the login page.
- We need to add more user stories ideas.
- Took time because we worked on new technologies
- 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.

# SPRINT - 4

## Stories Planned for Sprint 4

ID	User story	Acceptance Criteria
SAT-4	As a new user I want to enter my inputs age,height,weight activity So that I get recommendations based on my system	Scenario when user wants to give inputs Given he gives inputs and enters 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 can get all the services of the application	Scenario when user wants to navigate Given he wants to know the services listed Then user gets to know all the services in the application
SAT-9	As a new user I want to reset my password So that I can Login again	Scenario when user forgets his password Given he changes his password Then the system stores his new password
SAT-8	As a new user I want to edit my personal Information So that I can get recommendations based on changed information	Scenario when user wants to edit his information Given he changes his information And he changes his information And he submits the information And his information is updates

# APPLICATION SCREENSHOTS



## Register

SathwikM@gmail.com

.....

.....

REGISTER

Login



Registered Successfully.

OK

LOGIN

Register



Log in

Use X

GitHub

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XAMPF

localhc

Store V

archite

separcl

(1) Del

Mail -

Promo

Powerf

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🌐 Live broadcast of to...

📺 GitHub - durgeshm...

🏠 Home - sathwikMu...

⚡ Sports Track

🗨️ Yalla Shoot Live - E...

TS TOTALSPORTEK - H...

HM Men's T-Shirts & Ta...

🌱 Security Quickstart |...



Login

SathwikM@gmail.com

.....

LOGIN

Register

Welcome

LOG OUT



You Have Successfully Logged in

OK

## Git-hub Link

[https://github.com/sathwikMudenti/Project\\_images/wiki](https://github.com/sathwikMudenti/Project_images/wiki)





HAPPY EATING  
THANK YOU