Project report

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TABEL OF CONTENTS

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r

p

o

s

e

- **LITRATURE SURVEY**

  Existing

  problem

  Proposed

  Solution

- **IDEATION AND PROPOSED SOLUTION**

  Empathy Map

  Canvas Ideation and

  Brainstroming

  Proposed Solution

  Problem Solution Fit

- **REQUIRMENT ANALYSIS**

  Functional Requirement

  Non- Functional Requirement

- **PROJECT DESIGN**

  Data Flow Diagrams

  Solution and Technical

  Architecture User Story

PROJECT PLANNING AND SCHEDULING

-

  Sprint Planning and

  Estimation Sprint

  Delivery and

  Schedule Reports

  from JIRA

- **CODING AND SOLUTIONING**

  Feature 1

  Feature 2

- **TESTING**

  Test Cases

  User Acceptance Testing

- **RESULT**

  Performance Metrics
- **ADVANTAGE AND DISADVANTAGES**
- **CONCLUSION**
- **FUTURE SCOPE**
- **APPENDIX**

• Introduction

• Overview

As there is improvement in people's standards of living, obesity rates are increasing at an alarming speed, and this is reflective of the risks to people's health. People need to control their daily calorie intake by eating healthier foods. However, most of food packaging comes with nutrition labels, it's still not very convenient for people to refer.

Most people understand the repercussions of eating fast food but

sometimes the repercussions are unexpected and may require the services of a personal injury lawyer.
Most of my favorite foods cause weight gain and ifeaten consistently, could lead to diabetes. In the last several years, there have
been a handful of displeased fast-food eaters who took legal action against the fast-

food chains to either make an easy buck or hold them accountable for their lousy products.

- ## Purpose

The main purpose of this Web application is to help people know the nutrient value of the food they eat. This web app provides a service where the user can feed the food image/ food name/image URL and the app provides the nutrient value of the food. The user can also feed the daily consumption of food with time and date.Then he can access the food details whenever required.The nutrient details are also sent to the user mail.

This application can be used personally to take of ones health, recommended by hospitals or the doctors to track the user daily food consumption, We will know more about this further.

- # LITRATURE SURVEY

- ## Existing problem

In this busy world people can't track the food they consume and it is difficult to find the nutrients of all the food they consume. Over consumption or under nutrition can lead to serious health issues. These may be calcium/ iron/vitamin deficiencies or the over consumption of carbohydrates and sugar that causes obesity and diabetes. Which may further lead to serious health issues. There is urgent action required to maintain a balanced diet in order to have a good immunity.

- ## Proposed solution

Our web app used the food image given by the user then processes that to the nutrient values of the food then displays to the user.these can reduce the user's effort to enter the food details.he can simply capture the food image and enter into the web app.

The user can enter the food details that he consumes daily on the basis of time and date of consumption. we then add the food details into the user table. the user can then go to the diary page and view the data entered by him between any particular dates. He can also view the aggregate nutrient details. We have provided an email service where users will get the aggregate nutrient details.

This application can be used on the recommendation of the doctor or the hospitals where one can track all the data that the patient consumed to track the nutrient details of the patient.

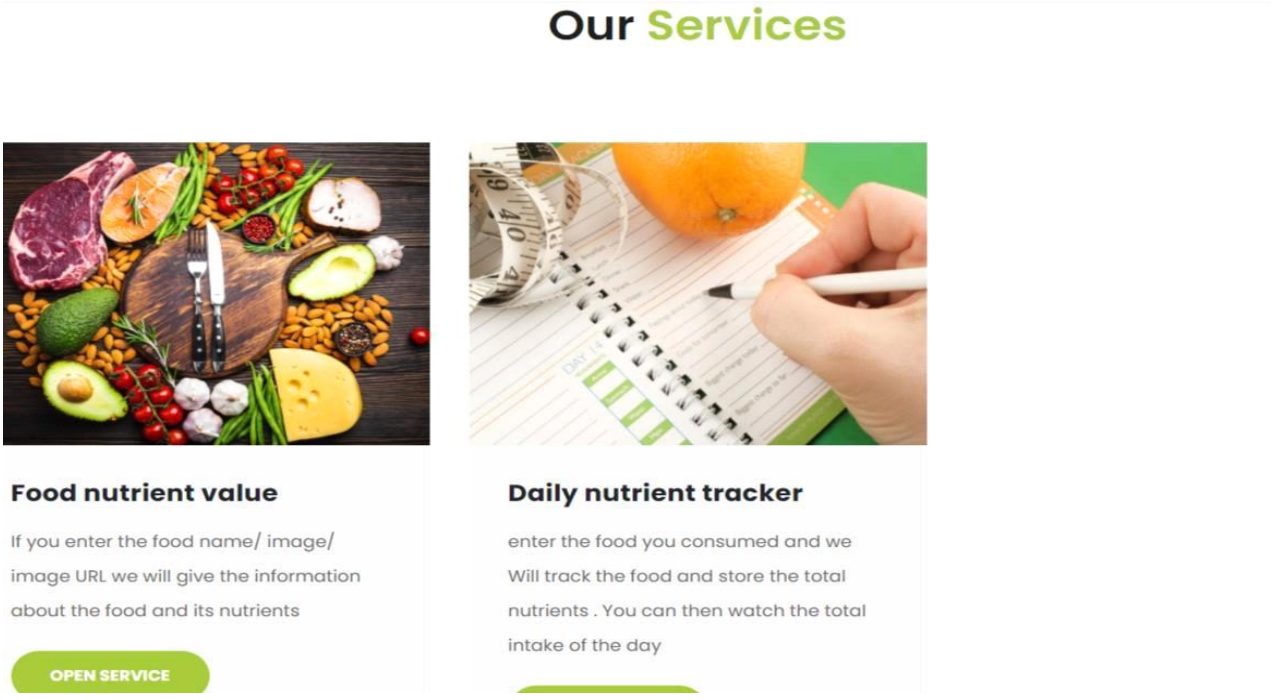


fig : Our services from dashboard page

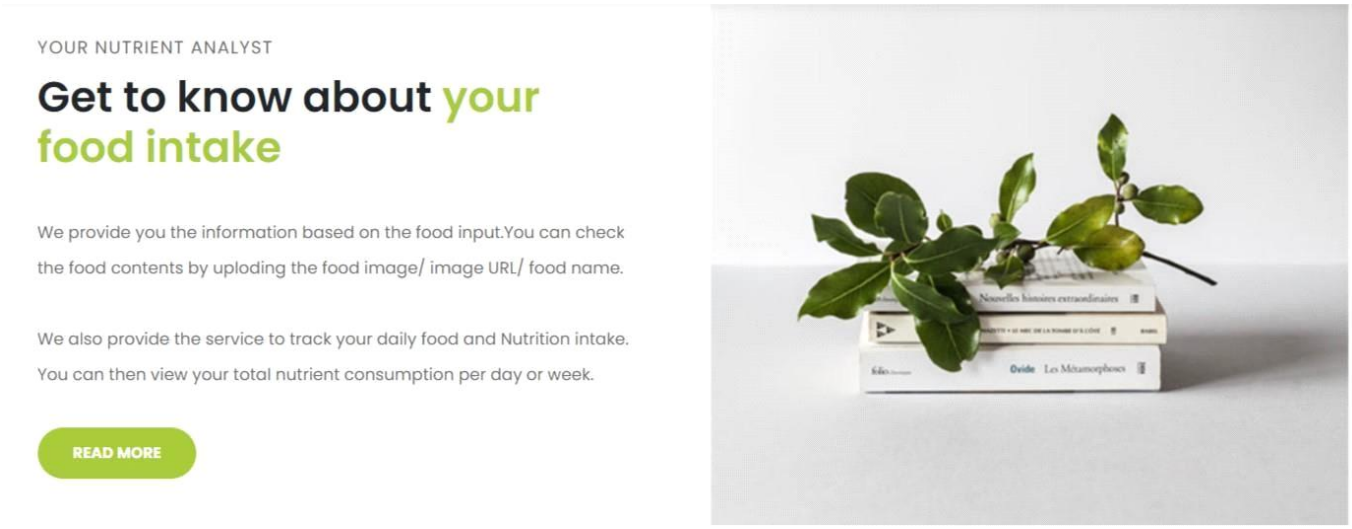
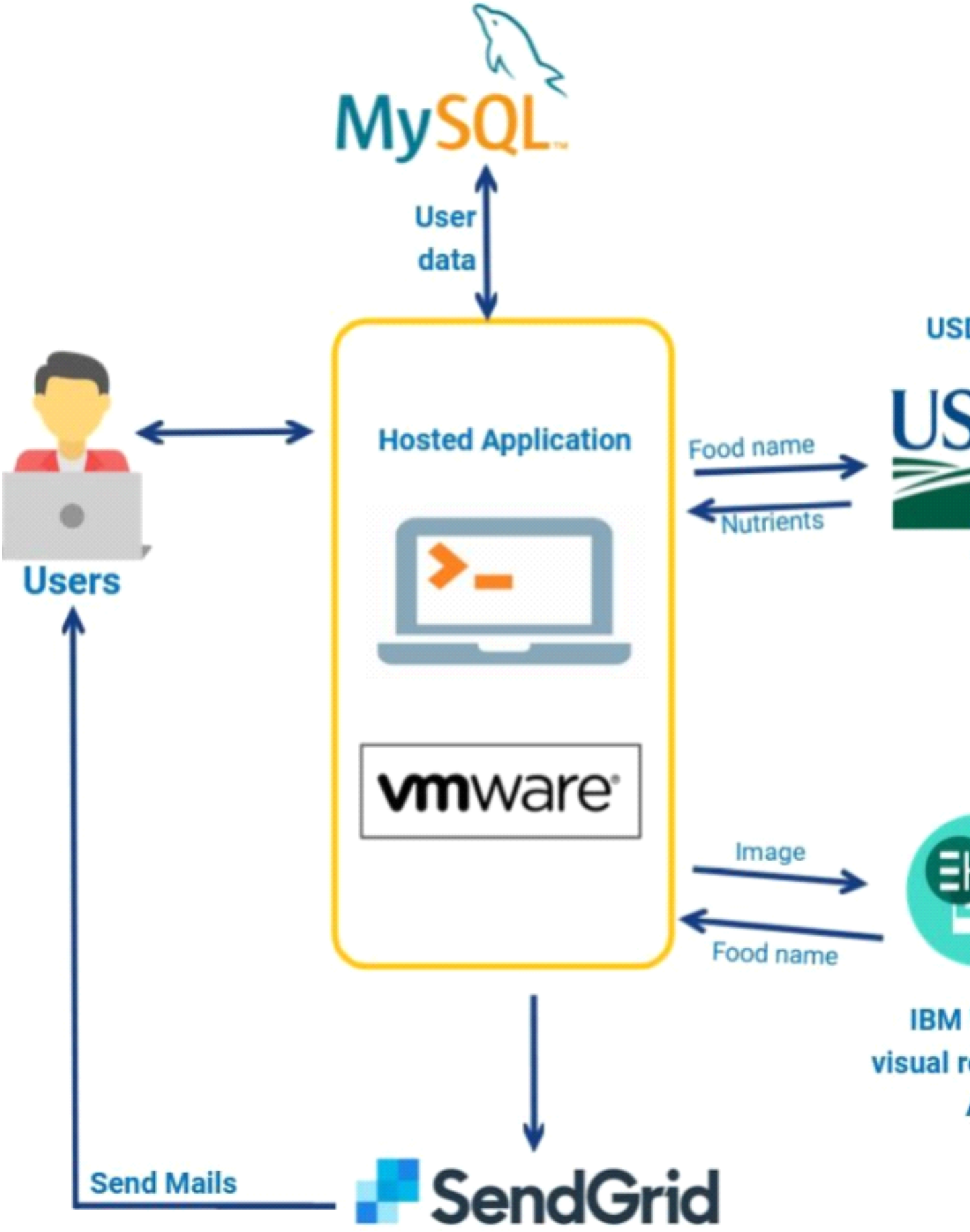


fig : 'About Us' page from web app

- **THEORITICAL ANALYSIS**
- **Block diagram**


MySQL
User
data
Users
Hosted Application
Food name
Nutrients
vmware
Image
Food name
Send Mails
SendGrid

- ## Ideation and Brainstroming

This project aims at building a web App that automatically estimates food nutrients by the input image/name of the food. I have used the IBMs visual recognition-v3 Api to find the food by the given food image or the image URL.

Application then takes the processed data and then sends it to the USDA API which then estimates the nutrient values of the food and returns the nutrients and their nutrient value.Which we then process and store in the database if the user wants to enter.

I have used python for programming and HTML, CSS, JS for designing pages And SendGrid for email services.

- ## Proposed Solution

With all the above factors I have included some more services that would be useful to the user.some of these are listed below.

- A demo service where the user can just enter the food name and the web app will tell the nutrients.This can be accessed without the registration whereas other pages can be accessed only after the user registration.

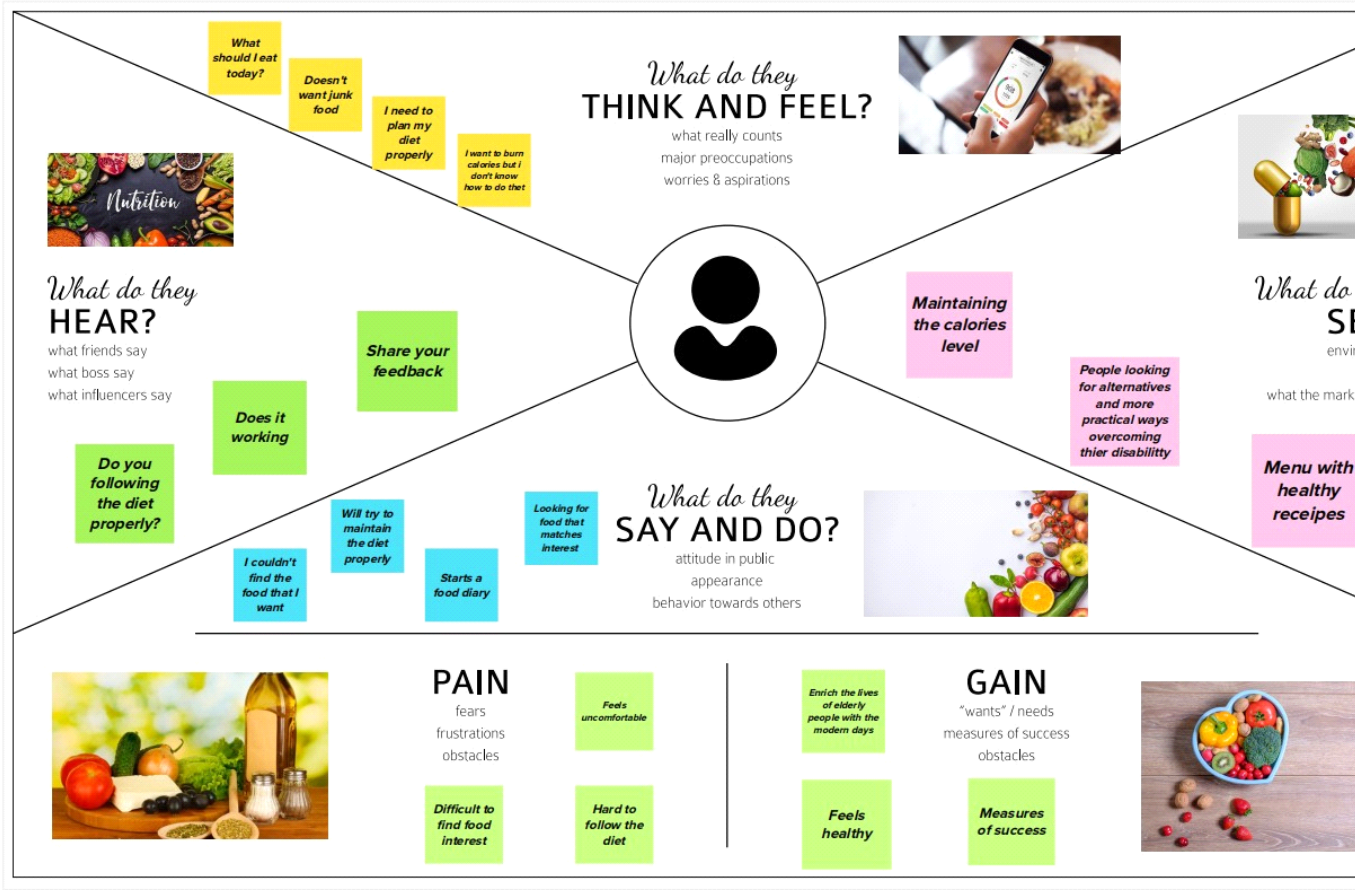
- **Empathy map**

Empathy Map Canvas

Gain insight and understanding on solving customer problems.

1

Build empathy and keep your focus on the user by putting yourself in their shoes.



- **REQUIREMENT ANALYSIS**

While analyzing the problem , I found that as people in their busy life can't track the nutrients they consume,and can't find the nutrients of the

food.Because it impacts badly on their health.

- Functional Requirements

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through E-mail and Phone number
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Profile Completion	Get personal details like height, weight, etc.
FR-4	Gather meal image	Upload photo Take live photo of the meal
FR-5	Display calorie information	Integrate Clarifai API to get name of the food Integrate Nutrition API (rapid API) to collect calorie information

- **Non-Functional Requirements**

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Provide user friendly UI Simple and intuitive design
NFR-2	**Security**	Comprehensive authorization and authentication scheme for each system actor
NFR-3	**Reliability**	The system must perform without failure in 95 percent of use cases
NFR-4	**Performance**	The landing page supporting several users must provide 5 seconds or less response time
NFR-5	**Availability**	Uninterrupted services must be available all time except the time of server updation.
NFR-6	**Scalability**	Provide horizontal or vertical scaling for higher workloads

• PROJECT DESIGN

- **Data Flow Diagram**

Nutrition Assistant Application

¡---•Regist,er Server--• **MYSQL**

L

i--•log1in -..server◄•--•• MYSQL

Dashboard

SE|RVER

A
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o
u
t
U
s
F
o
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S
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vi
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e
s

t Insert image

11 I

USDAAPI

Insert image UlRL

Insert food name

Daily Tracker

Enter food name

Enter image.

t

- IBM WATSON API

4
Output

-,.Vier ::e Data (Your IDiary)

nter From and lo dates..... ,.

Log1out

1--•**ForQet Password** **Server** II • • **MySQL**

+

-.. MYSQL

Server

L. SendGrid

!

'--• **Contact** us-l **SeNer** l-:s r;d--------- User{Mail)

- **Solution and Technical Attributes**

fig : Output shown to the user.

- I have added a page COVID PRECATIONS.where user can get the

  information about the nutrients to consume in this pandemic according to the AYUSH Ministry.

fig : A screen shoot from Covid precaution page.

- I have added a ABOUT US page which gives information about our webpage. NUTRIENT page gives information about the nutrient details.

fig : 'Nutrients details' from home page

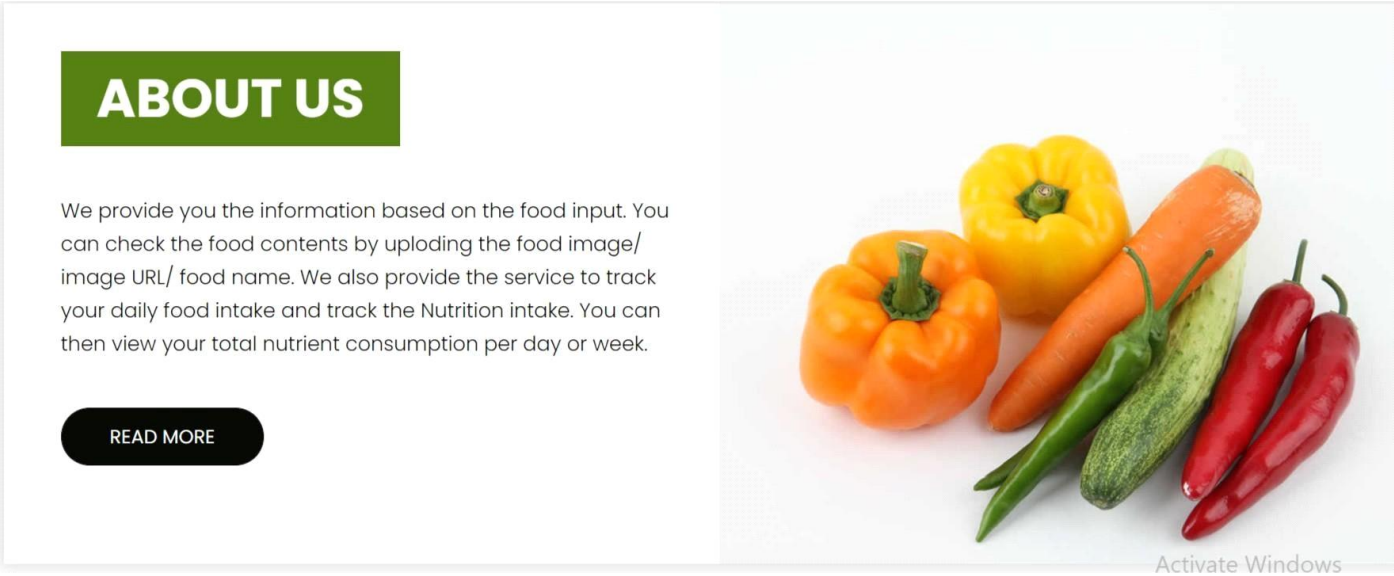
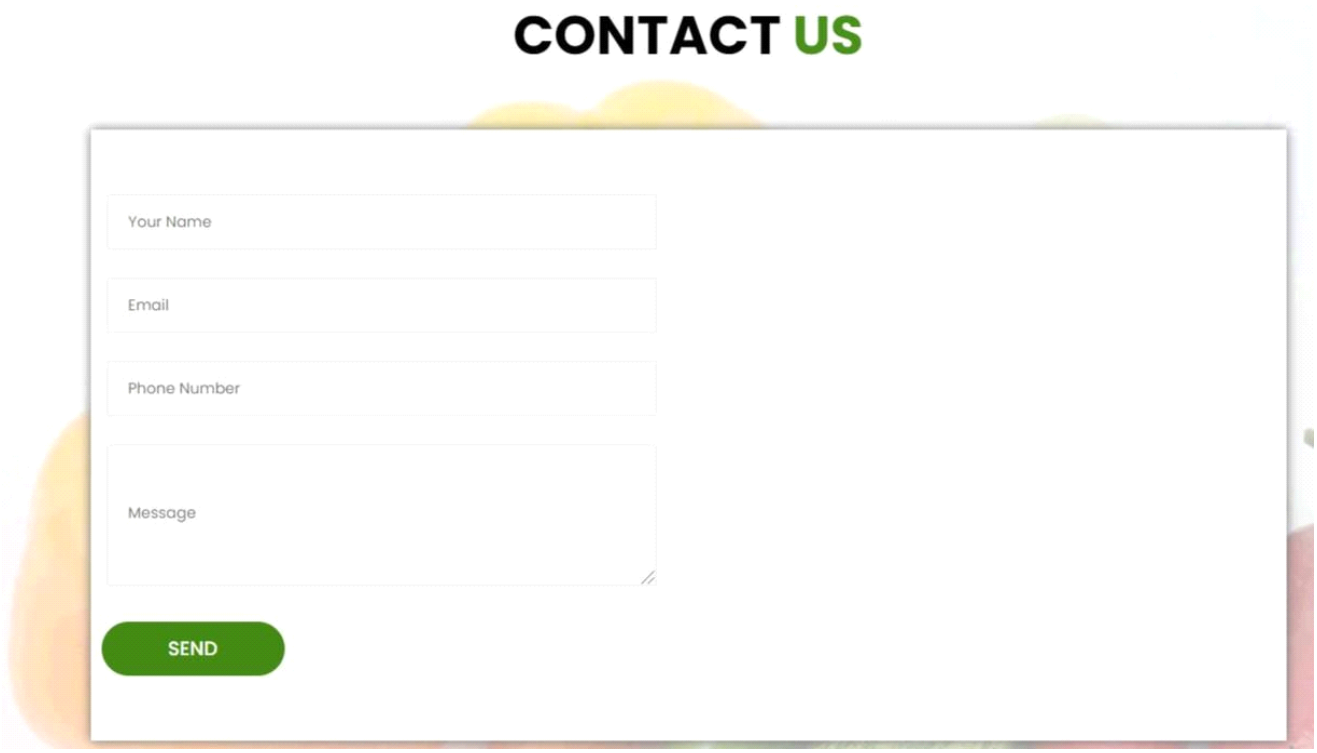


fig : 'About Us' from home page

- I have added the CONTACT US page from where the user can enter the Queries.



- I have added the email services using send grid. which sends the email to the user.the following are the email services.
    - As soon the user gets registered he will receive the mail.
    - If the user has forgotten the credentials he can get the user id and password to his mail.
    - Whenever the user watches his calorie consumption he get the nutrient details in his mail.
    - If the user uses our contact us page he gets the mail.

- User Stories

User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Re
Customer	Registration	USN-1	As a user, I can register for the application by entering my Name, Age, Gender, E-mail, password, and confirming my password.	I can access my account / dashboard.	High	Sp
		USN-2	As a user, I will receive confirmation email once I have registered for the application.	I can receive confirmation email & click confirm.	High	Sp
	Profile updation	USN-3	As a user, I have to enter my height, weight and daily activity details.	I can update these information on Dashboard.	High	Sp
	Login	USN-4	As a user, I can login to the application by entering E-mail and password.	I can access my account/ dashboard.	High	Sp
	Dashboard	USN-5	As a user, I can upload or capture live image of the meal	I can get the nutritional value of that particular meal.	High	Sp
		USN-6	As a user, I can track my daily calorie intake.	I can access my account/ Dashboard.	Medium	Sp
Administrator	Maintain the Application	USN-7	Maintaining details for users.	I can access database.	High	Sp

- **PROJECT PLANNING AND SCHEDULING**

Team Members
Sindhu S Sowmiya S Ashwin Kumar A Vijay N
Sindhu S Sowmiya S Ashwin Kumar A Vijay N
Sindhu S Sowmiya S Ashwin Kumar A Vijay N
Sindhu S Sowmiya S Ashwin Kumar A Vijay N

- Sprint Planning and Estimation

- Sprint Delivery and Schedule

Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 NOV 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 NOV 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 NOV 2022

Velocity:

$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (A
iteration unit (story points per day)

```
<!-- clients -->
  <div id="testimonial" class="clients">
  <div class="container">
 <div class="row">
 <div class="col-md-12">
     <div class="titlepage">
          <h2>Testimonial</h2>
           </div>
        </div>
      </div>
    </div>
 <div class="clients_red">

          <div
class="container">
           <div id="testimonial_slider" class="carousel slide" data-
                                                    ride="carousel">
<!-- Indicators -->
          <ul class="carousel-indicators">
  <li data-target="#testimonial_slider" data-slide-to="0" class=""></li>
            <li data-target="#testimonial_slider" data-slide-to="1" class="active"></li>
            <li data-target="#testimonial_slider" data-slide-to="2" class=""></li>
          </ul>
          <!-- The slideshow -->
          <div class="carousel-inner">
            <div class="carousel-item">
```

```
<div class="testomonial_section">
  <div class="full testimonial_cont">
    <div class="row">
      <div class="col-xl-3 col-lg-3 col-md-3 col-sm-12 pa_right">
        <div class="testomonial_img">
          <figure><img src="static/images/rg5.jpg" alt="#"/></figure>
          <i><img src="static/images/test_con.png" alt="#"/></i>
        </div>
      </div>
      <div class="col-xl-9 col-lg-9 col-md-9 col-sm-12 pa_left">
        <div class="cross_inner">
          <h3>Sagar<br><strong class="ornage_color">review</strong></h3>
          <p>I can track the food I consume dialy. Which I couldn't do in
other platform. I can also view all the data I entered between any given dates. I can also find the
aggrigate amount of nutrients consumed between any given dates. Now i no need to think/ find
what to eat and maintain the calories As it does that job.
          </p>
        </div>

      </div>
    </div>
  </div>
</div>
<div class="carousel-item active">
  <div class="testomonial_section">
    <div class="full center">
```

```
                </div>
                <div class="full testimonial_cont ">
                  <div class="row">
                    <div class="col-xl-3 col-lg-3 col-md-3 col-sm-12 pa_right">
                      <div class="testomonial_img">
                        <figure><img src="static/images/r21.jpg" alt="#"/></figure>
                        <i><img src="static/images/test_con.png" alt="#"/></i>
                      </div>
                    </div>
                    <div class="col-xl-9 col-lg-9 col-md-9 col-sm-12 pa_left">
                      <div class="cross_inner">
                        <h3>Adarsh<br><strong class="ornage_color">review</strong></h3>
                        <p>This is a good platform. It helps me to find all the nutrients I
consume. In todays world it's hard to find which food contain what amount of nutrients. It also
helps to have a balanced diet to mantain a good health. It also provide a service to save a data in
our mail that we watch.I would recommend you to add some more functionalities like  finding the
best recipe to cook the given food.
                        </p>
                      </div>
                    </div>
                  </div>
                </div>


              </div>
            </div>
            <div class="carousel-item">
              <div id="testomonial" class="testomonial_section">
                <div class="full center">
```

```
                    </div>
                    <div class="full testimonial_cont ">
                       <div class="row">
                          <div class="col-xl-3 col-lg-3 col-md-3 col-sm-12 pa_right">
                             <div class="testomonial_img">
                                <figure><img src="static/images/re12.jpg" alt="#"/></figure>
                                <i><img src="static/images/test_con.png" alt="#"/></i>
                             </div>
                          </div>
                          <div class="col-xl-9 col-lg-9 col-md-9 col-sm-12 pa_left">
                             <div class="cross_inner">
                                <h3>Abhilash<br><strong class="ornage_color">review</strong></h3>
                                <p>This is the the best calorie calculator I have ever seen, I tried
with many food names and pictures, everytime it's calorie content was near to the real one. The
app is really simple so that everyone can use easily. I would recommend you to add some more
functionalities like if we want to reduce calorie, alternatively it should change the quantity of
ingredients.
                                </p>
                             </div>
                          </div>
                       </div>
                    </div>
                 </div>
              </div>
           </div>
        </div>
     </div>
```

```
    </div>
    <!-- end clients -->
 <figure><img src="static/images/5-2-healthy-food-png-image.png" alt="#" /></figure>
<!-- contact -->
<div id="contact" class="contact">
  <div class="container">
   <div class="row">
     <div class="col-md-12">
              <div class="titlepage">
                <h2>Contact <strong class="llow">us</strong></h2>
              </div>
   </div>
</div>
    <div class="white_color">
      <div class="row">
        <div class="col-xl-6 col-lg-6 col-md-6 col-sm-12">
          <form action= "/contact" method="post"  class="contact_bg">
           <div class="row">
             <div class="col-md-12">
               <div class="col-md-12">
                 <input class="contactus" placeholder="Your Name" type="text" name="YourName"
                 required>
               </div>
               <div class="col-md-12">
                 <input class="contactus" placeholder="Email" type="text" name="Email"required>
               </div>
               <div class="col-md-12">
```

```
                <input class="contactus" placeholder="Phone Number" type="text"
                name="PhoneNumber">

              </div>

              <div  class="col-md-12">

                <textarea class="textarea" placeholder="Message" type="text"
    name="Message"required></textarea>

              </div>

              <div class="col-xl-12 col-lg-12 col-md-12 col-sm-12">

                <button  class="submit">Send</button>

              </div>

</div
    >

 </for
   m>

          </div>

           </div>

        <div class="col-xl-6 col-lg-6 col-md-6 col-sm-12">

  <div
id="m
  ap">

          </div>

           </div>

          </div>

        </div>

         </form>

                  <div class="copyright">

    <div class="container">

                <a href="/">Back to Home page </a>
```

```
</div>
</div>
                </form>
          </div>
        </div>

    </div>
    </div>
        <!-- end contact -->
        <!--  footer -->
        <footr>
          <div class="footer ">
            <div class="container">
              <div class="row">
                <div class="col-xl-12 col-lg-12 col-md-12 col-sm-12 ">
                  <div class="row">
                    <div class="col-xl-4 col-lg-4 col-md-6 col-sm-6 ">
                      <div class="address">
                        <h3>Developer details</h3>
                        <ul class="loca">
                          <li>
                            <a href="#"></a>Prajwal G B</li>
                              <li>
                                <a href="contactprajwalgb@gmail.com"></a>contactprajwalgb@gmail.com</li>
                              </ul>
                            </div>
```

```
                </div>
                <div class="col-lg-4 col-md-6 col-sm-6">
                  <div class="address">
                    <ul class="Menu_footer">
                      <li class="active">
                    </ul>
                  </div>
                </div>


                </form>
              <form action= "/subscribe"
                    method="post"  >
                <div class="col-lg-8 col-md-8 col-sm-8 ">
                  <div class="address">
              <h3>Subscribe here</h3>
                      <form class="news">
                      <input class="newslatter" name="email" placeholder="Enter your email"
type="email" name=" Enter your email">
                       <button  herf="/subscribe" class="submit">Subscribe</button>
                       </form>
                  </div>
                </div>
               </div>
              </div>
             </div>
            </div>
            <div class="copyright">
```

```
            <div class="container">
              <p> <a href="/">Back to Home page </a></p>
            </div>
          </div>
        </div>
      </footr>
      <!-- end footer -->
      <!-- Javascript files-->
      <script src="static/js/jquery.min.js"></script>
      <script src="static/js/popper.min.js"></script>
      <script src="static/js/bootstrap.bundle.min.js"></script>

      <script  src="static/js/jquery-3.0.0.min.js"></script>
      <script src="static/js/plugin.js"></script>
      <script src="static/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
  <!-- Additional Scripts -->
     <script src="static/assets/js/custom.js"></script>
     <script src="static/assets/js/slick.js"></script>
      <!-- sidebar -->
      <script src="static/js/jquery.mCustomScrollbar.concat.min.js"></script>
      <script src="static/js/custom.js"></script>
      <script
      src="https:cdnjs.cloudflare.com/ajax/libs/fancybox/2.1.5/jquery.fancybox.min.js"></script>
      <script>
</body></html>
```

Sprint 1

```
from flask import Flask, render_template, request, redirect,

url_for, session import ibm_db

import re
app =

Flask(

name_)

app.secret

_key = 'a'

conn =

ibm_db.connect("DATABASE=bludb;HOSTNAME=ba99a9e6-d59e-4883-8fc0-
d6a8c9f7a08f.c1ogj3sd0tgtu0l
qde00.databases.appdomain.cloud;PORT=31321;SECURITY=SSL;SSLServerCertificate=DigiCert
GlobalRoot CA.crt;UID=ksm24043;PWD=ZXsdfH0rppztWofo","","")

@

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():

return

render_template('register.html')

@app.route('/login', methods

=['GET', 'POST']) def login():
```

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'

'

if request.method == 'POST'and 'username' in request.form and 'password' in

request.form: username = request.form['username']

password = request.form['password']

```
stmt = ibm_db.prepare(conn,'SELECT * FROM accounts WHERE username = ?AND password = ?')
ibm_db.bind_param(stmt,1,username)
ibm_db.bind_param(stmt,2,passwor
d) ibm_db.execute(stmt)
account =
ibm_db.fetch_assoc(st
mt) if account:
session['loggedin'] = True
session['username'] =
account['USERNAME'] msg =
'Logged in successfully !'
return render_template('index.html',
msg = msg) else:
msg = 'Incorrect username / password !'
return render_template('login.html',
msg = msg) @app.route('/logout')
def logout():
session.pop('logge
din', None)
session.pop('id',
None)
session.pop('usern
ame', None)
return
redirect(url_for('lo
gin'))
```

```
@app.route('/register', methods
=['GET', 'POST']) def register():
msg = ''
if request.method ==
'POST': username =
request.form['username
'] email =
request.form['email']



password = request.form['password']
sql = "SELECT * FROM accounts WHERE
username = ? " stmt =
ibm_db.prepare(conn,sql)
ibm_db.bind_param(stmt,1,username)
ibm_db.execute(stmt)
account =
ibm_db.fetch_assoc(stmt)
print(account)
if account:
msg = 'Account already exists !'
elif not
re.match(r'[^@]+@[^@]+\.[^@]+',
email): msg = 'Invalid email address !'
elif not re.match(r'[A-Za-z0-9]+', username):
```

```
msg = 'Username must contain only characters
and numbers !' elif not username or not password
or not email:
msg = 'Please fill
out the form !'
else:
insert_sql = "INSERT INTO accounts
VALUES (?, ?, ?)" stmt =
ibm_db.prepare(conn,insert_sql)
ibm_db.bind_param(stmt, 1, username)
ibm_db.bind_param(stmt, 2, email)
ibm_db.bind_param(stmt, 3,
password) ibm_db.execute(stmt)
msg = 'You have successfully
registered !' elif
request.method == 'POST':
msg = 'Please fill out the form !'
return
render_template('register.html', msg
= msg) if __name___== '__main__':
app.run(debug = True)
```

2.register.html

```
<html>
<head>
<meta charset="UTF-8">
<title> Register </title>
```

```
<link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">
</head>
<body></br></br></br></br></br>
<div align="center">
<div align="center" class="border">
<div class="header">
<h1 class="word">Register</h1>
</div></br></br></br>
<h2 class="word">
<form action="{{ url_for('register') }}" method="post">
<div class="msg">{{ msg }}</div>
<input id="username" name="username" type="text"
placeholder="Enter Your Username"
class="textbox"/></br></br>
<input id="email" name="email" type="email"
placeholder="Enter Your Email" class="textbox"/></br></br>
<input id="password" name="password" type="text" placeholder="Enter Your Password"
class="textbox"/></br></br>
<input type="submit" class="btn" value="Sign Up"></br>
</form>
</h2>
<p class="bottom">Already have an account? <a
class="bottom" href="{{url_for('login')}}"> Sign In
here</a></p>
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<head>
<meta charset="UTF-8">
<title> Login </title>
<link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">
</head>
<body></br></br></br></br></br>
<div align="center">
<div align="center" class="border">
<div class="header">
<h1 class="word">Login</h1>
</div></br></br></br>
<h2 class="word">
<form action="{{ url_for('login') }}" method="post">
<div class="msg">{{ msg }}</div>
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```
<input id="username" name="username" type="text"
placeholder="Enter Your Username"
class="textbox"/></br></br>
<input id="password" name="password" type="password" placeholder="Enter
Your Password" class="textbox"/></br></br></br>
<input type="submit" class="btn" value="Sign In"></br></br>
</form>
</h2>
<p class="bottom">Don't have an account? <a
class="bottom" href="{{url_for('register')}}">
Sign Up here</a></p>


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<meta charset="UTF-8">

<title> Index </title>

<link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">

</head>

<body></br></br></br></br></br>

<h1 class="word">Index</h1>

</br></br></br>

<h1 class="bottom">

Hi {{session.username}}!!</br></br> Welcome to the index page...

</h1></br></br></br>

Logout

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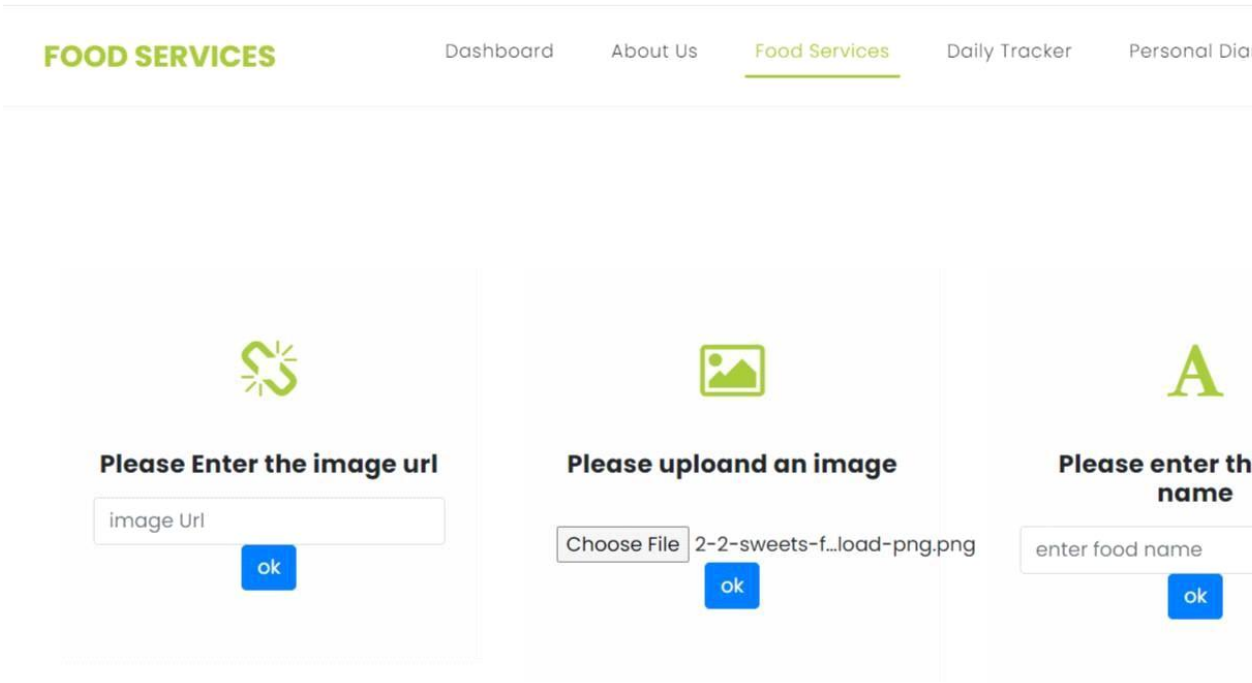
- **TESTING**

Title	Description	Date
Literature Survey & Information Gathering	**Literature survey on the selected project & gathering information by referring the, technical papers, research publications**	**24 September 2022**
Prepare Empathy Map	**Prepare Empathy Map Canvas to capture the user Pains & Gains, Prepare list of problem statements**	**25 September 2022**
Ideation	**List the by organizing the brainstorming session and prioritize the top 3 ideas based on the feasibility & importance**	**20 September 2022**
Proposed Solution	**Prepare the proposed solution document, which includes the novelty, feasibility of idea, business model, social impact, scalability of solution, etc**	**19 September 2022**
Problem Solution Fit	**Prepare problem solution fit document**	**20 September 2022**
Solution Architecture	**Prepare solution architecture document**	**19 September 2022**
Customer Journey	**Prepare the customer journey maps to understand the user interactions & experiences with the application**	**03 October 2022**

Functional Requirement	**Prepare the functional requirement document**	**03 October 2022**
Data Flow Diagrams	**Draw the data flow diagrams and submit for review**	**03 October 2022**
Technology Architecture	**Prepare the technology architecture diagram**	**03 October 2022**
Prepare Milestone & Activity List	**Prepare the milestones & activity list of the project**	**22 October 2022**
Project Development - Delivery of Sprint-1, 2, 3 , 4	**Develop & submit the developed code by testing it**	**In Progress…**

- **RESULT**



This web app provides the food details if the food image/ URL/ Name

is entered. It provides the nutrients involved in it and also the nutrient value.

fig : web page to select the service image URL/ food image /food name.

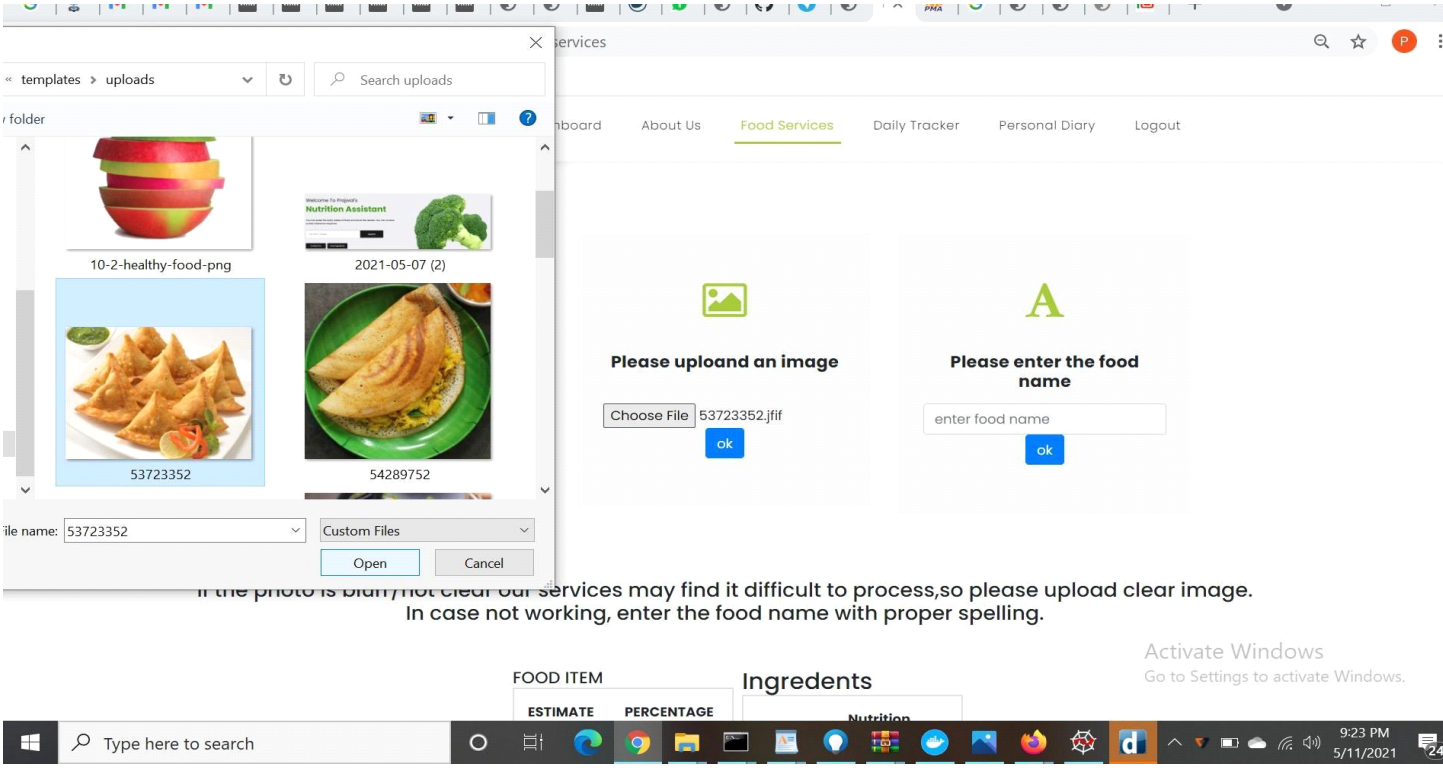


fig : Web page to choose the image

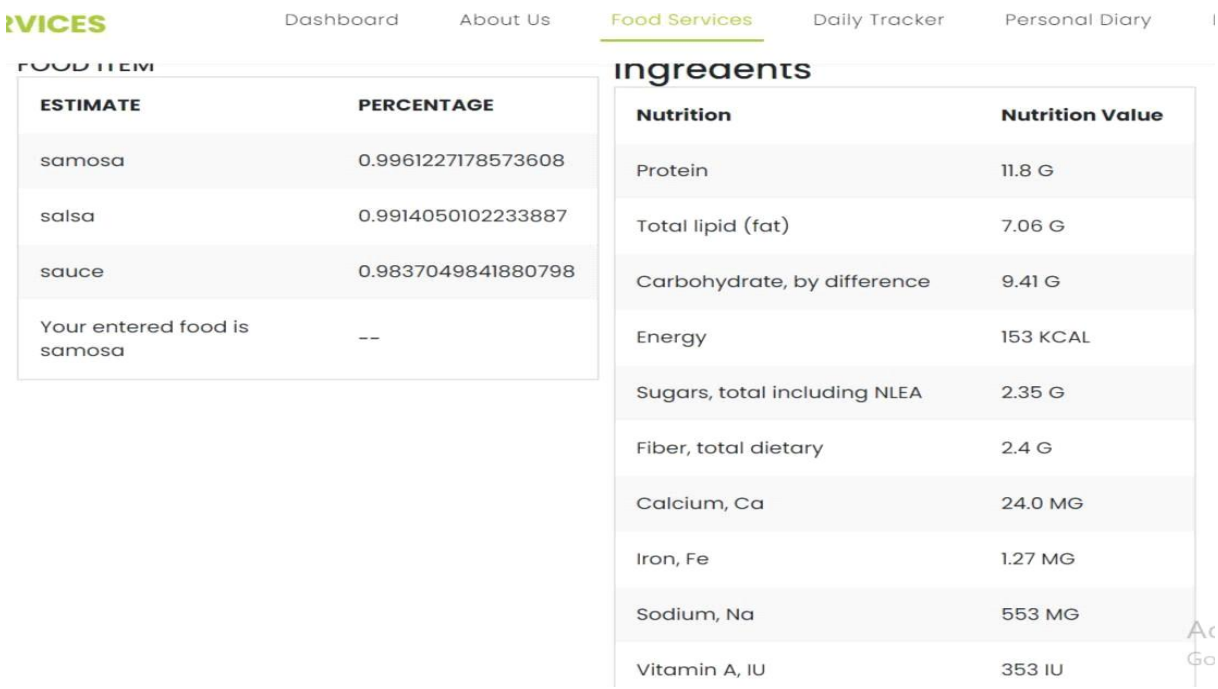


fig : Showing the output of the food entered

- Our another service provides the input of aggregate values of the nutrient consumed, as per the user requirements.

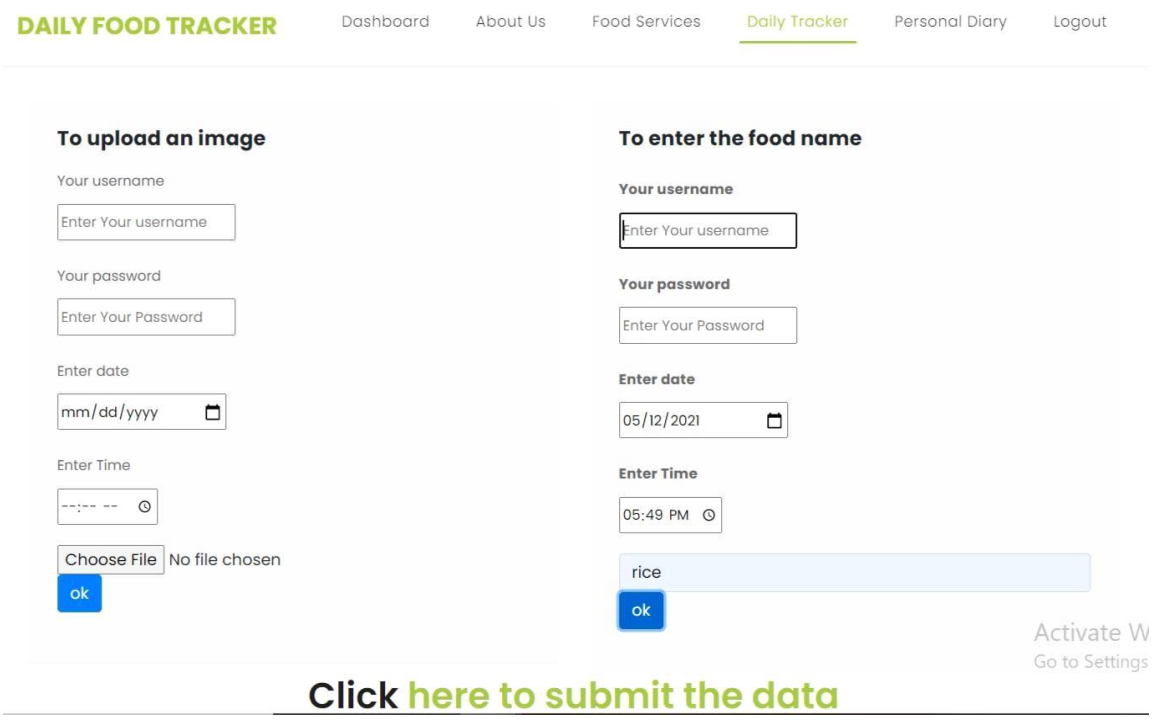


fig : Daily tracker page asking the user to enter the data.

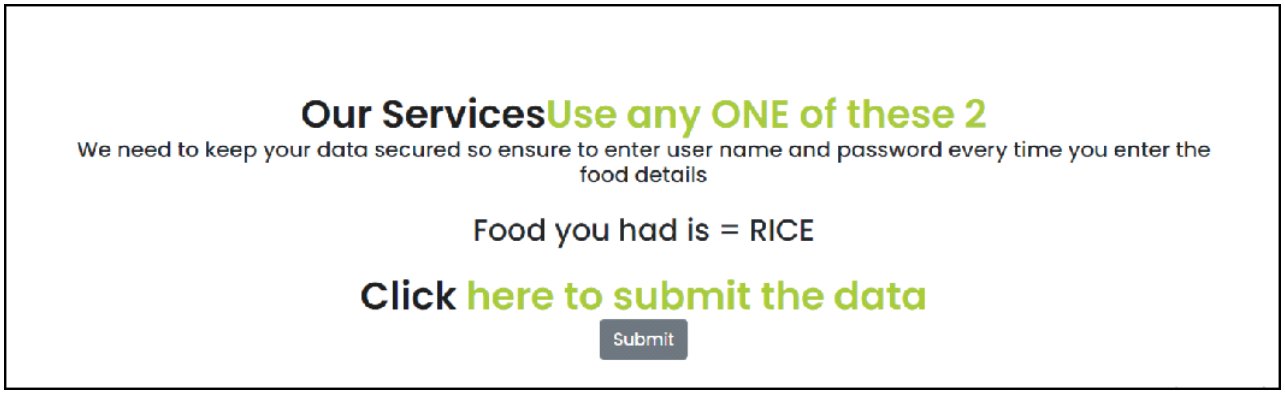


fig : Web page asking the user to submit the data to database

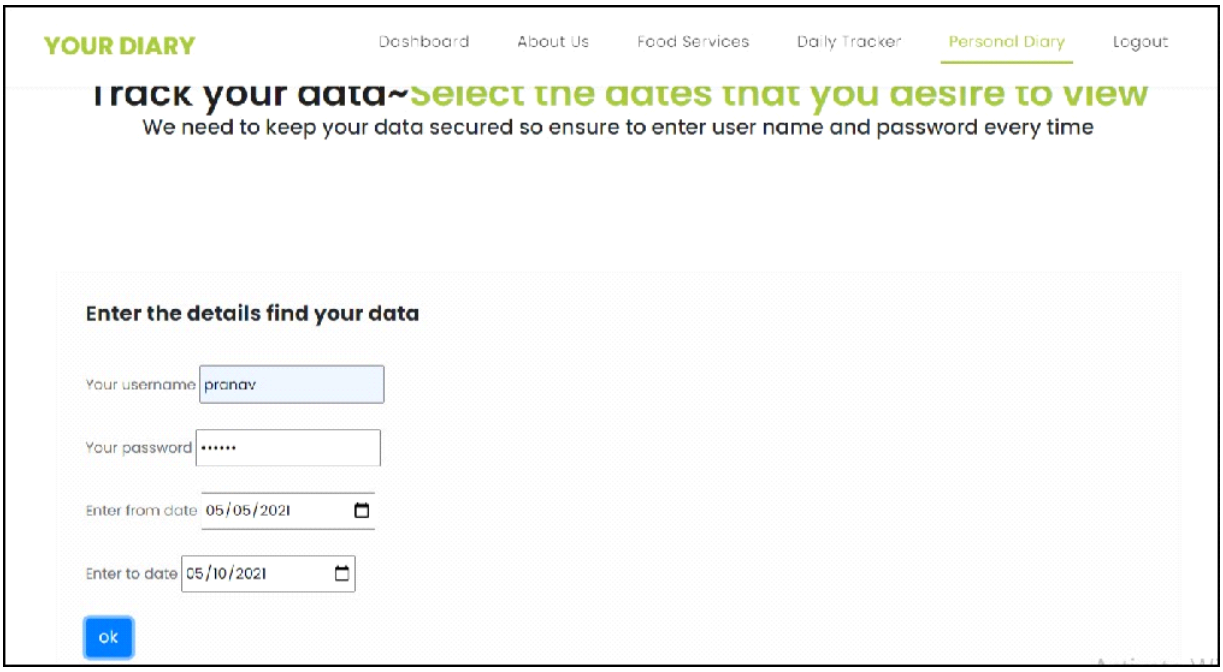


fig : Diary page asking the user to enter the dates he wan to see he information

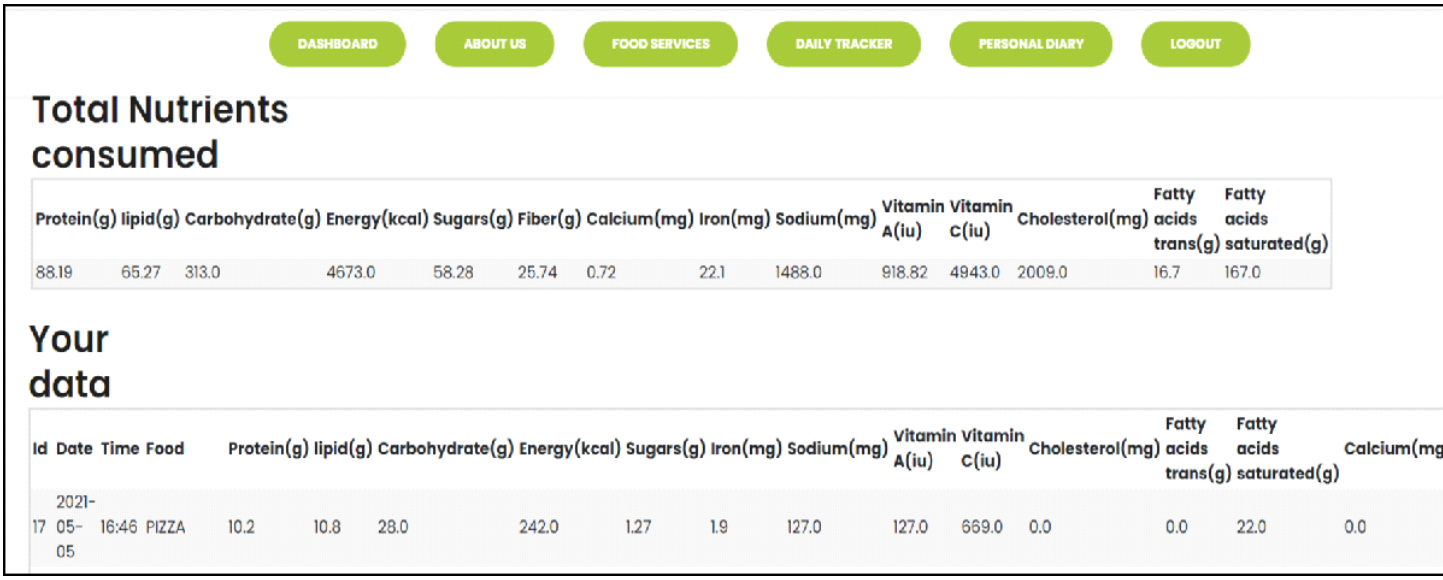
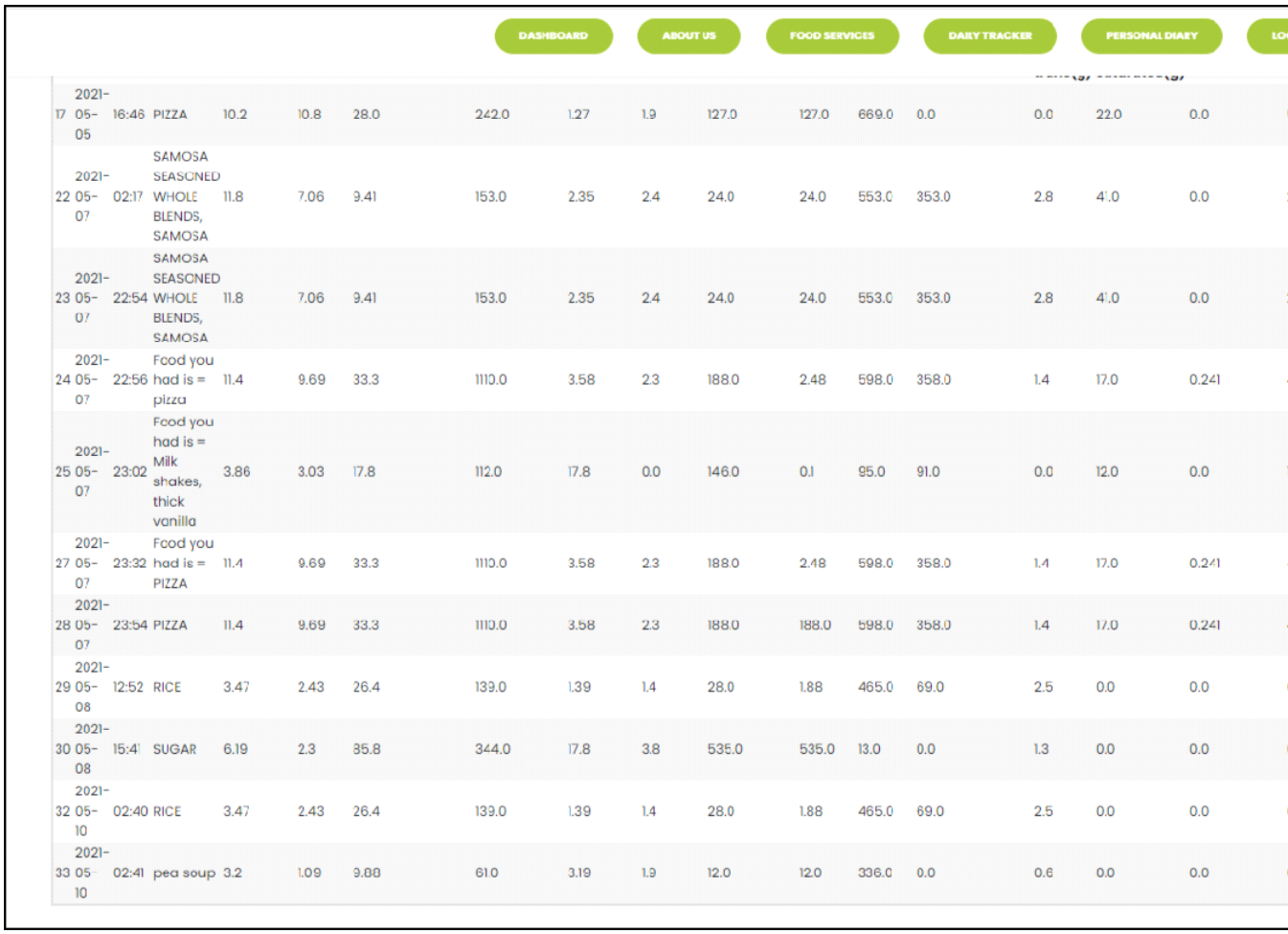


fig : Display page showing the aggregate details of the user food nutrients



17	2021-05-05	16:46	PIZZA	10.2	10.8	28.0	242.0	1.27	1.9	127.0	127.0	669.0	0.0	0.0	22.0	0.0
22	2021-05-07	02:17	SAMOSA SEASONED WHOLE BLENDS, SAMOSA	11.8	7.06	9.41	153.0	2.35	2.4	24.0	24.0	553.0	353.0	2.8	41.0	0.0
23	2021-05-07	22:54	SAMOSA SEASONED WHOLE BLENDS, SAMOSA	11.8	7.06	9.41	153.0	2.35	2.4	24.0	24.0	553.0	353.0	2.8	41.0	0.0
24	2021-05-07	22:56	Food you had is = pizza	11.4	9.69	33.3	1110.0	3.58	2.3	188.0	2.48	598.0	358.0	1.4	17.0	0.241
25	2021-05-07	23:02	Food you had is = Milk shakes, thick vanilla	3.86	3.03	17.8	112.0	17.8	0.0	146.0	0.1	95.0	91.0	0.0	12.0	0.0
27	2021-05-07	23:32	Food you had is = PIZZA	11.4	9.69	33.3	1110.0	3.58	2.3	188.0	2.48	598.0	358.0	1.4	17.0	0.241
28	2021-05-07	23:54	PIZZA	11.4	9.69	33.3	1110.0	3.58	2.3	188.0	188.0	598.0	358.0	1.4	17.0	0.241
29	2021-05-08	12:52	RICE	3.47	2.43	26.4	139.0	1.39	1.4	28.0	1.88	465.0	69.0	2.5	0.0	0.0
30	2021-05-08	15:41	SUGAR	6.19	2.3	85.8	344.0	17.8	3.8	535.0	535.0	13.0	0.0	1.3	0.0	0.0
32	2021-05-10	02:40	RICE	3.47	2.43	26.4	139.0	1.39	1.4	28.0	1.88	465.0	69.0	2.5	0.0	0.0
33	2021-05-10	02:41	pea soup	3.2	1.09	9.88	61.0	3.19	1.9	12.0	12.0	336.0	0.0	0.6	0.0	0.0

fig : Display of user food details

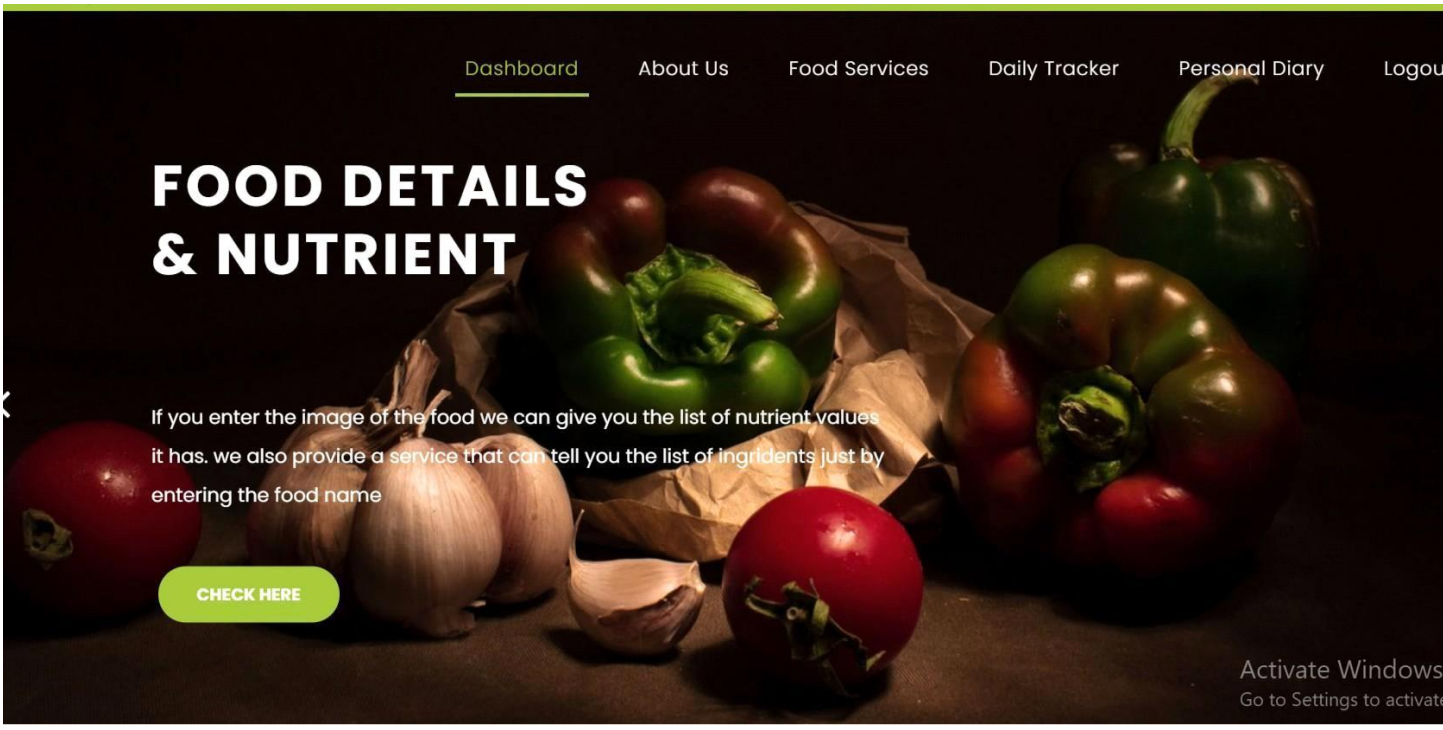


fig : Dashboard of the web app

Hello pranav,

You have consumed the following nutrients From - 2021-05-05 To-2021-05-10,

Protein 88.19g,

lipid 65.27g,

Carbohydrate 313.0g,

Energy 4673.0kcal,

Sugars 58.28g,

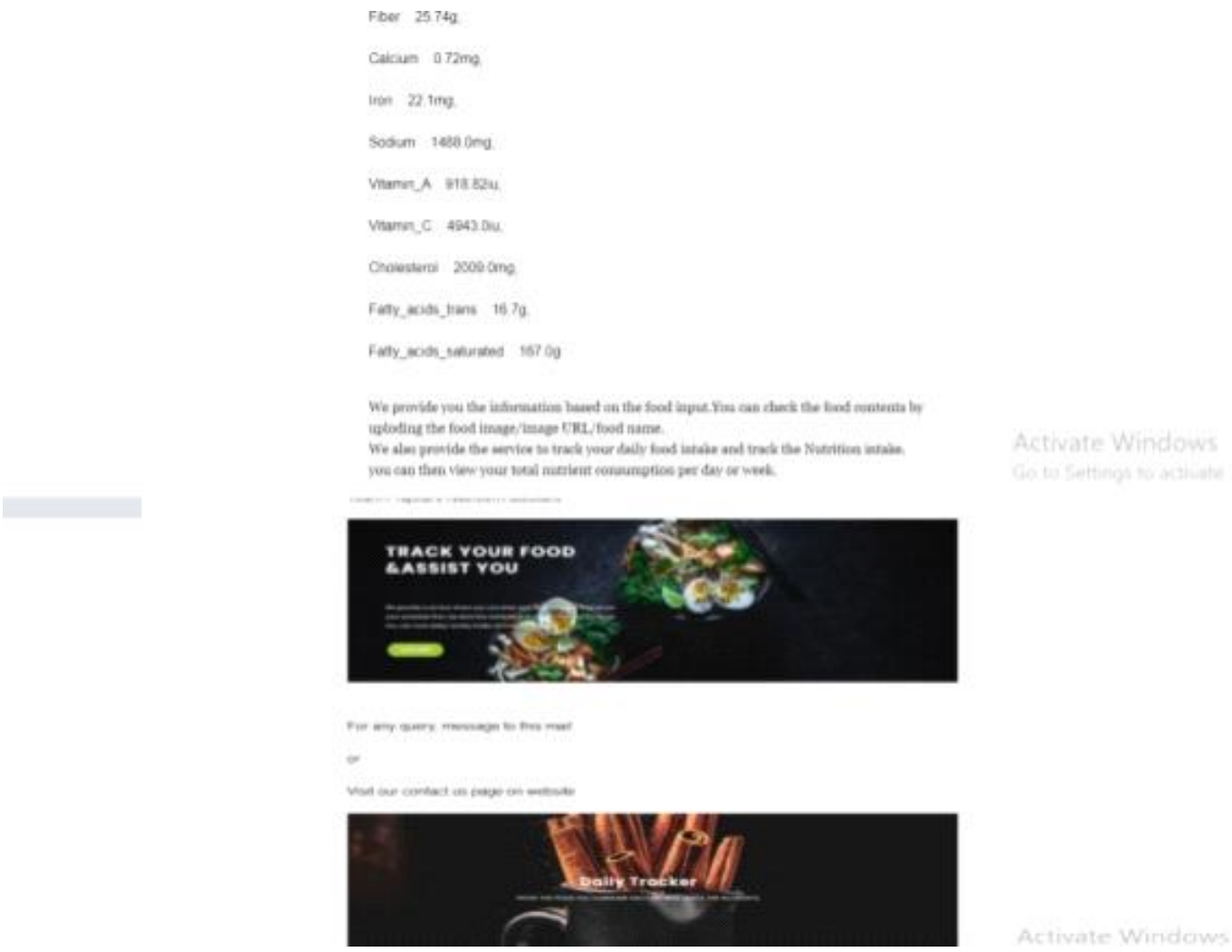


fig : Mail received by the app regarding the nutrient information

- **ADVANTAGES AND DISADVANTAGES**
  - **Advantage**

Our web app uses the food image given by the user then processes that to the nutrient values of the food then displays to the user. The user can enter the food details that he consumes daily based on time and date of consumption. The user can then go to the diary page and view the data entered by him between any particular dates. He can also view the aggregate nutrient details.

This application can be used on the recommendation of the doctor or the hospitals where one can track all the data that the patient consumed to track the nutrient details of the patient.

- ## Disadvantages

As the food around the world is very diverse, it is difficult to recognize some of the local foods. Both the APIs are having a very wide range of food images. But its difficult to find all the food images.

In order to overcome the above disadvantages I have given the field where one can directly enter the food name. We then process the name to the nutrient values.

- ## CONCLUSION

As there is improvement in people's standards of living, there is neglect in the proper balanced diet and this is reflective of the risks to people's health. People need to control their daily calorie intake by eating healthier foods.

My web app keeps the record of what the user eat and displays the nutrients he consumed which makes the user to find what nutrients he consumed in what amounts.

- ## FUTURE SCOPE

As people are in this fast and busy world, it becomes important to track the food details. I have planed to add a feature where the user can set the goal of taking the nutrients per day / week. then our app tells whether he has reached

the goal.

I will also include the service where the user can update his weight and height based on which our app gives the Nutrients data that one needs to consume.

I have also planned to link the daily trackers in the mobiles like Google fit, from where we can get the calories lost and our web app give the data of nutrients to be consumed.

APPLICATIONS

This application has the following applications.

- The uploaded food image is processed and then its the nutrient value is displayed.
- The URL/The food name can also be given as food input.
- The user can track the daily intake of food
- User can track the nutrient values of the food that He consume.
- User can store the data in his table in the database.
- He can access the data whenever he wishes.
- Users can watch their aggregate nutrients consumed and also received the mail of the aggregate report.
- This application can be recommended by the doctor/ hospitals who wishes to track the food/nutrient consumption of the patient.

13.APPENDIX

- I have used IBM Watson Visual recognition v3 API for Food Model for food recognition. Where it take the output.
- USDA API uses the food name given and then processes it to the nutrient list.

GITHUB LINK : https://github.com/IBM-EPBL/IBM-Project-1014-1658334809

DEMO LINK: https://drive.google.com/file/d/1iEXmoARPANh7rFs65-kYi_OaNBxRzdCI/view?usp=drivesdk