

Project Report

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1.INTRODUCTION

1.1 Project Overview

Obesity rates are rising alarmingly quickly as a result of people's lack of knowledge about appropriate eating practices, which reflects the hazards to their health. The simplest way to prevent obesity is for people to limit their daily calorie consumption by eating healthier meals. It's still not very convenient for people to use app-based nutrient dashboard systems, even though food packaging includes nutrition (and calorie) labels. These systems can analyse real-time images of a meal and analyse it for nutritional content, which can be very handy and improve dietary habits and subsequently help with maintaining a healthy lifestyle.

By identifying the supplied food image, this project attempts to create a web application that automatically calculates food qualities like ingredients and nutritional value. Our approach uses Food APIs to provide the nutritional information of the recognised food and Clarifai's AI-Driven Food Detection Model for precise food recognition.

1.2 Purpose

Quality and the nutrients that are present in the food in an instant. Previously before starting a good diet clients had to study about the nutritional components of each of the food material and calculate the overall nutritional supplements present in an individual food before consuming it. That is too much time consuming and false knowledge in this matter Our purpose is that every food vendor and clients will be aware of the meal's can lead to having unbalanced diet which can be rather cost effective. But with this application clients can easily get to now about the nutritional components that is present in the food just by using our web application and by clicking a capture of image of the food or upload the food's picture from the galary in the module and the module will give you the nutrients that is present in that food as output.

2.LITERATURE SURVEY

2.1 Existing Problem

- The existing problem is some were using the voice assistant,By using Voice assistants, these assistants are detect the background noise abd didn't give the accurate result.
- The loading of results will appears for longer time due to the acceptance of longer content description of the meal planner.
- Some application does not gives the whole nutrition planning about the uploaded meal.

- In Personalized Dietary Assistant - An Intelligent Space Application: The disadvantage of this method lies in the complexity of the problem: at first it would seem easy to calculate the nutritional values considering the few nutrients and minerals that are listed on product labels, but in fact there are dozens of nutritional values that are needed to be accounted for, and most of them are not even listed on product labels

2.2 References:

[1] <https://ieeexplore.ieee.org/document/8118575>

[2] <https://ieeexplore.ieee.org/document/8320221>

[3] <https://ieeexplore.ieee.org/document/9073490>

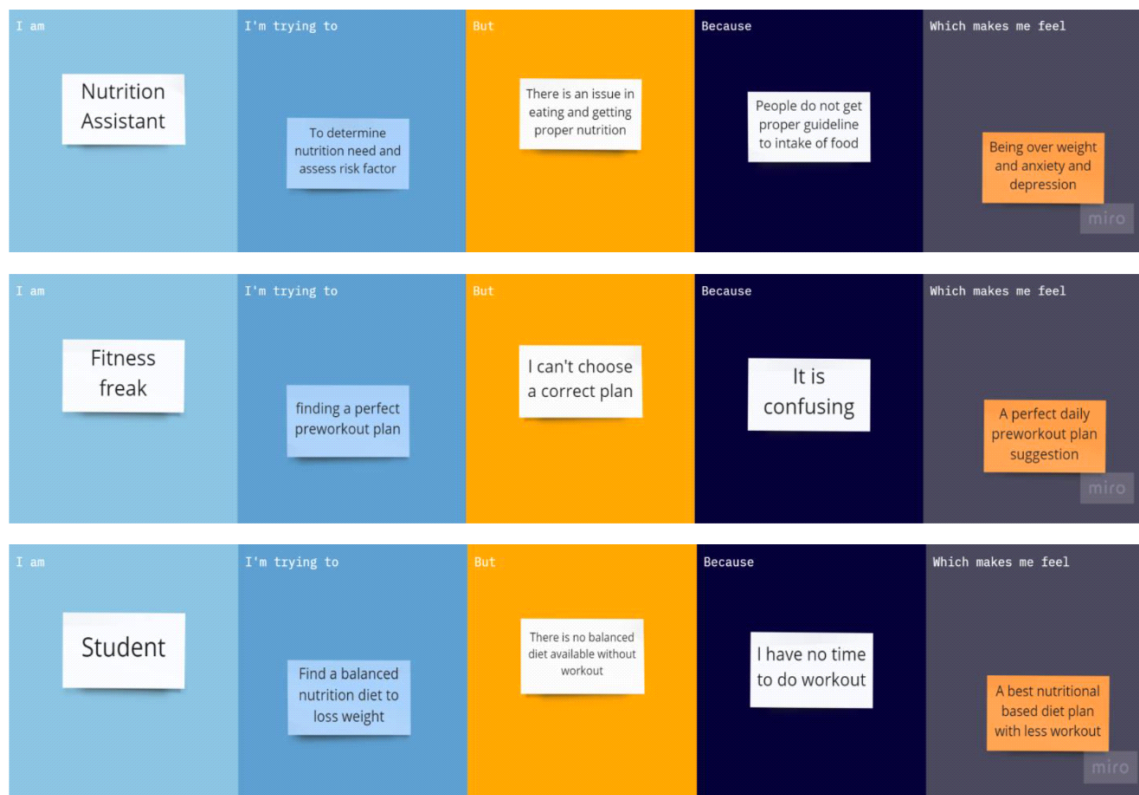
[4] <https://ieeexplore.ieee.org/document/9009613>

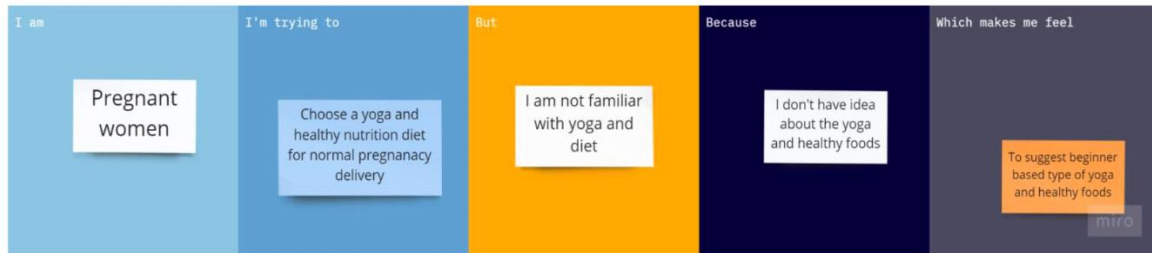
[5]

<https://www.researchgate.net/publication/348459867> Dietitian assistant opportunities within the nutrition care process for patients with or at risk of malnutrition a systematic review

2.3 problem Statement Definition:

Nutrition assistant application:





Problem Statement PS-1	I am (customer)	I'm trying to	But	Because	Which make me feel
PS-1	Nutrition Assistant	To determine nutrition need and assess risk factor	There is an issue in eating and getting proper nutrition	People do not get proper guideline to intake of food	Being over weight and anxiety and depression
PS-2	Fitness freak	Findings a perfect preworkout plan	I can't choose a correct plan	It is confusing	A perfect daily preworkout plan suggestion
PS-3	Student	Find a balanced nutrition diet to loss weight	There is no balanced diet available without workout	I have no time to do workout	A best nutritional based diet plan with less workout
PS-4	Cricketer	Choose a best nutrition plan and workout to increase my stamina level	confused with many technique	I want to increase my stamina level	Perfect suggestions
PS-5	Pregnant women	Choose a yoga and healthy nutrition diet for normal pregnancy delivery	I am not familiar with yoga and diet	I don't have idea about the yoga and healthy foods	To suggest beginner based type of yoga and healthy foods

3.IDEATHON & PROPOSED SOLUTION


3.1 Empathy Map Canvas



3.2 Ideation & Brainstorming

Step-1: Team Gathering, Collaboration and Select the Problem Statement:

Template



Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

🕒 10 minutes to prepare

🕒 1 hour to collaborate

👤 2-8 people recommended

Share template feedback

➔

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕒 10 minutes

A

Team gathering
 Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B

Set the goal
 Think about the problem you'll be focusing on solving in the brainstorming session.

C

Learn how to use the facilitation tools
 Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) ➔

1

Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕒 5 minutes

PROBLEM

There is an issue in eating and getting proper nutrition

PROBLEM

I can't choose a correct plan

PROBLEM

confused with many technique

PROBLEM

Choose a best nutrition plan and workout to increase my stamina level

Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

TIP

TIP You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

Jeevika

Web App	Camera	
Cloud	Storage	
Input Item	Diet Schedule	

vignesh

Exercise plan		Healthy
media		Exposure app
input		Voice Search

Gokul priya

Cost		Free
data		security
Data		Store

Jeeva

All Site		Reference
Indicate		Non-Response
Star rating		better health

3

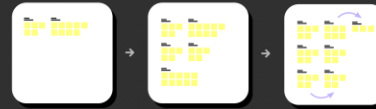
Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

⌚ 20 minutes

TIP

TIP Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

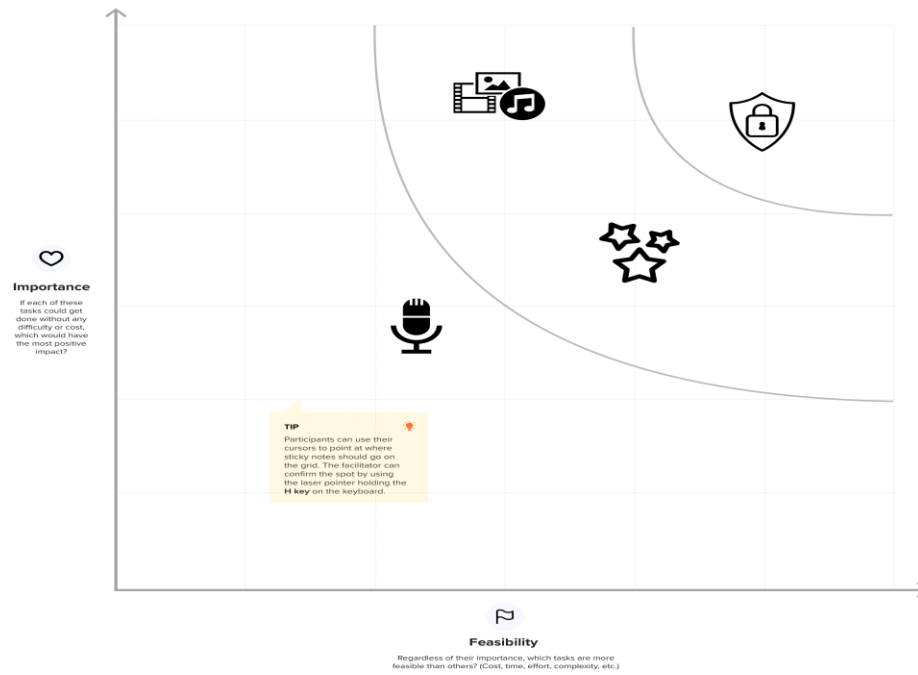


4

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.




🕒 20 minutes



3.3 Proposed Solution

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none"> • This project aims at building a web app that automatically estimates food attributes using clarifo's AI driven food detection model
2.	Idea / Solution description	<ul style="list-style-type: none"> • The solution is a responsive Web application that can be used in any PC devices. • The website provides a user-friendly interface and accepts multiple samples predicting them simultaneously. • A detailed report of the concerned person's health will be generated.
3.	Novelty / Uniqueness	<ul style="list-style-type: none"> • Keep a food journal. • Our method uses Clarifai's AI- driven food recognition model to accurately identify food suggestions. • Water and medicine monitoring • Patients to more easily monitor their caloric intake and dietary pattern to aid in weight and disease management.
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> • Calculate the basal metabolic rate, body mass index, ideal weight • Nutrition focused food banking & targeted in-depth reporting reviews that paid subscriptions the best. • Evaluated caloric intakes
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> • Revenue is generated on a subscription basis, with big data processing and targeted in-depth reporting reviews that paid subscriptions the best.
6.	Scalability of the Solution	<ul style="list-style-type: none"> • Furthermore eminent features can be added to our application. • The additional features such that sleep tracking, mensuration tracking can be done.

3.4 Problem Solution fit

Define CS, fit into CC	<div>1. CUSTOMER SEGMENT(S)</div> <div><div>Who is your customer? i.e. working parents of 0-5 y.o. kids</div><div></div></div> <div>People want to lose weight,those who want to gain weight in healthy way. Everyone who feels to stay fit and healthy by consuming nutritious food and following calorie conscious diet.</div>	<div>6. CUSTOMER CONSTRAINTS</div> <div><div>What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.</div><div></div></div> <div><div>1.Shortage of time due to work pressure due to which maintaining becomes difficult.</div><div>2. Not able to control cravings and end up eating unhealthy and high calorie foods.</div></div>	<div>5. AVAILABLE SOLUTIONS</div> <div><div>Which solutions are available to the customers when they face the problem</div><div></div></div> <div>or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an</div> <div><div>1. Personal diet tracking app which helps to maintain diet.</div><div>2. Personal nutritionist or trainer to suggest correct schedule according to customer requirement.</div></div>	Explore AS, differentiate

Focus on J&P, tap into BE, understand RC	<div>2. JOBS-TO-BE-DONE / PROBLEMS</div> <div>Which jobs-to-be-done (or problems) do you address for your customer? There could be more than one, explain different</div> <div><div>J&P</div><div>1. To calculate calories and nutrients present.</div><div>2. Monitor customers calorie consumption in order to maintain diet</div></div>	<div>9. PROBLEM ROOT CAUSE</div> <div>What is the real reason that this problem exists i.e.</div> <div><div>RC</div><div>1. Due to shortage of time, preparation of healthy home food is replaced by consuming unhealthy fast food.</div><div>2. Teenagers are addicted to fast food which leads to obesity</div></div>	<div>7. BEHAVIOUR</div> <div>What is the job?</div> <div><div>BE</div><div>1. Eating healthy and low calorie foods.</div><div>2. Following diet plan and consuming nutritious foods.</div><div>3. Working out or taking up any sport involves physical fitness</div></div>	Focus on J&P, tap into BE, understand RC

3. TRIGGERS <small>What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news</small> <p>1. When people around us bully. 2. Peer pressure, beauty standards, society point of view etc., 3. When obesity and consumption of unhealthy foods leads to health issues</p>	10. YOUR SOLUTION <small>If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality. If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour</small> <p>1. Follow the correct diet plan and consume suggested calories per day. 2. Try to involve yourself in physical fitness like sports, gym, yoga etc.,</p>	8. CHANNELS of BEHAVIOUR 8.1 ONLINE <small>What kind of actions do customers take online? Extract online channels from #7</small> <p>1. follow people who give healthy and nutritious food recipes. 2. Keep track of fitness freaks in social media and follow their fitness tips</p>
4. EMOTIONS: BEFORE / AFTER <small>How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure > confident, in control - use it in your communication strategy & design.</small> <p>When customer use our application they feel secure with their meal planning.</p>		8.2 OFFLINE <small>What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.</small> <p>Notice people around you who follows healthy habits in both consumption of food and workouts.</p>

4. REQUIREMENT ANALYSIS

4.1 Functional requirement

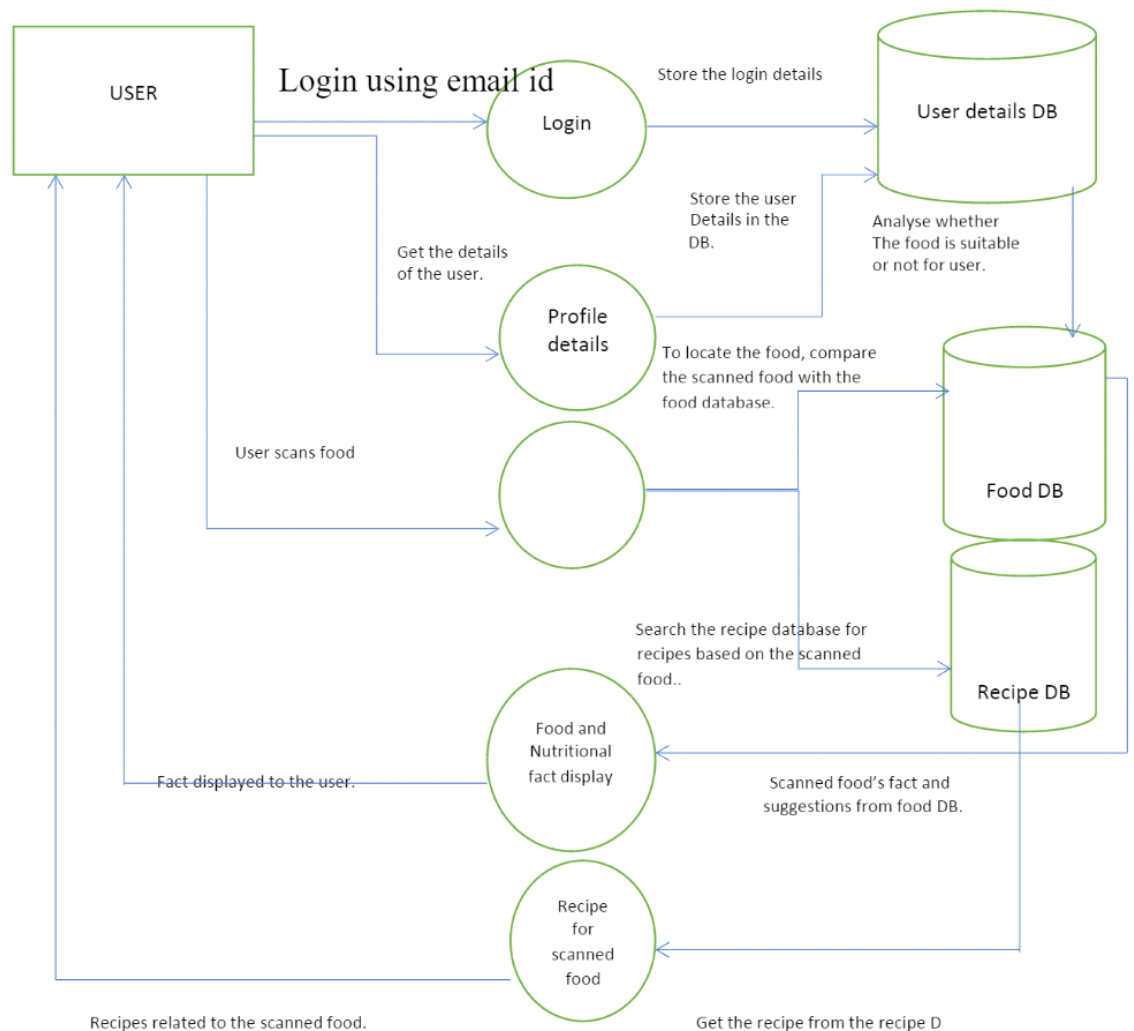
FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through E-mail and Phone number
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Profile Completion	Get personal details like height, weight, etc.
FR-4	Gather meal image	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

4.2 Non-Functional requirement

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.

5.PROJECT DESIGN

5.1 Data Flow Diagrams



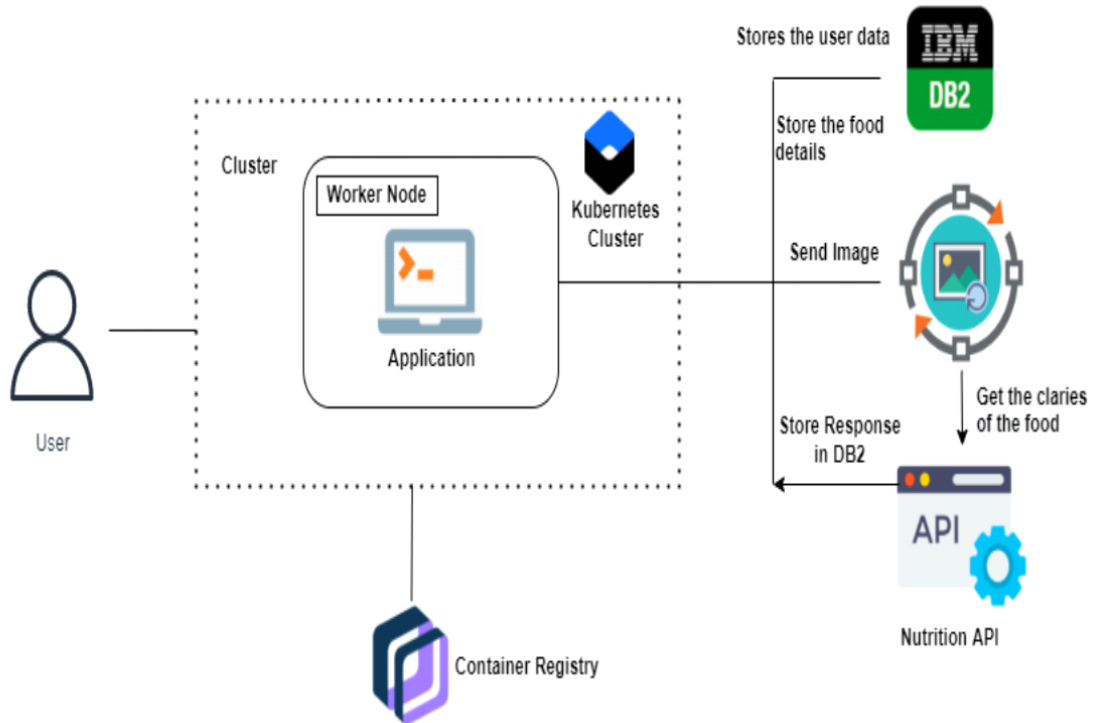
5.2 Solution & Technical Architecture

Solution Architecture:

Due to the ignorance of healthy food habits, 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, which is the most basic method to avoid obesity. However, although food packaging comes with nutrition (and calorie) labels, it's still not very convenient for people to refer to App-based nutrient dashboard systems which can analyse real-time images of a meal and analyse it for nutritional content which can be very handy and improves the dietary habits, and therefore, helps in maintaining a healthy lifestyle.

This project aims at building a web App that automatically estimates food attributes such as ingredients and nutritional value by classifying the input image of food. Our method employs Clarifai's AI-Driven Food Detection Model for accurate food identification and Food API's to give the nutritional value of the identified food.

Solution Architecture Diagram:



5.3 User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account /dashboard	High	Sprint-1
		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	Sprint-1
	Login	USN-3	As a user, I can upload the food photo.	I can access the Dashboard and the application.	High	Sprint-1
Customer (Web user)	Upload Photo	USN-4	As a user, I can fill the Details.	I can get the nutrition details.	High	Sprint-1
Administrator	User details	USN-5	As a user, I can provide my feedback utilizing voice search	I can get whether the scanned food is suitable or not.	High	Sprint-2
	Push notification	USN-6	As a user, I will search the food items.	I can get the notification, related to my search.	High	Sprint-1
	Show the nutrition details	USN-7	As a user, I can scan the food.	I can get the nutrition details of the scanned food.	High	Sprint-1
	Recipe shown	USN-8	As a user, I want to get the recipe for the scanned food.	I can get the recipe about the food.	Low	Sprint-2

6.PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation

TITLE	DESCRIPTION	DATE
Literature Survey and Information gathering.	Literature survey on the selected project & gathering information by referring the, technical paper research Publications etc.	13 SEPTEMBER 2022.
Prepare Empathy Map.	Prepare Empathy Map Canvas to capture the user Pains & Gains, Prepare list of problem statements.	06 SEPTEMBER 2022.
Ideation.	List the idea by organizing the brainstorming session and prioritize the top 3 ideas based on the feasibility & importance.	12 SEPTEMBER 2022.
Proposed Solution.	Prepare the proposed solution document, which includes the novelty, feasibility of idea, business model, social impact, scalability of solution, etc.	06 SEPTEMBER 2022.
Problem Solution Fit.	Prepare problem - solutionfit document.	02 SEPTEMBER 2022.
Solution Architecture.	Prepare solution architecture document.	01 OCTOBER 2022.
Customer Journey.	Prepare the customer journey maps to understand the user interactions & experiences with the application.	14 OCTOBER 2022.
Data Flow Diagrams Draw the data flow.	Data Flow Diagrams, draw the data flow.	14 OCTOBER 2022.
Technology Architecture.	Architecture diagram.	03 OCTOBER 2022.
Prepare Milestone & Activity List.	Prepare the milestones & activity list of the project.	18 OCTOBER 2022.
Project Development -Delivery of Sprint- 1, 2, 3 & 4.	Develop & submit the developed code by testing it.	1. 29 OCTOBER 2022, 2. 05 NOVEMBER 2022, 3. 12 NOVEMBER 2022, 4. 19 NOVEMBER 2022

6.2 Sprint Delivery Schedule:

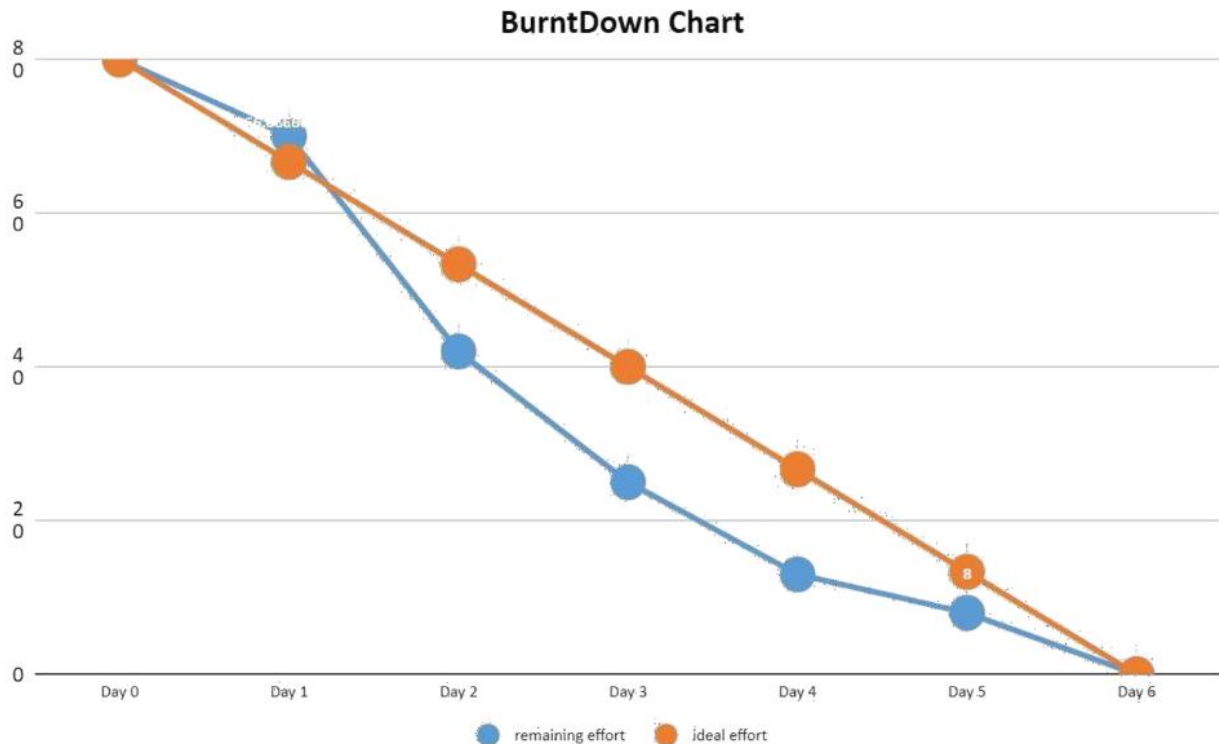
Product Backlog, Sprint Schedule, and Estimation

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	2	High	Jeevika J Gokulpriya D
Sprint-1		USN-2	As a user, I will receive confirmation email once	1	High	Vignesh S
Sprint-1	Login	USN-3	As a user, I can log into the application by entering email & password	1	High	Jeeva K
Sprint-2		USN-4	As a user, I wish to see the website features.	1	Low	Jeevika J
Sprint-3	User details	USN-5	As a user, I can fill the Details	1	High	Jeeva k
Sprint-3	Push notification	USN-6	As a user, I want to use chatbot for asking some details	2	Medium	Jeeva K Gokulpriya D
Sprint-4		USN-7	As a user I upload a images into the web application	1	High	Jeevika J
Sprint-4	Shown the nutrition details and Recipe for scanned food	USN-8	As a user, I can scan the food and get the nutrition details and recipe for related scanned food.	1	High	Jeevika J Vignesh s

Project Tracker, Velocity & Burndown Chart

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

6.3 Reports form IIRA



7.1 Feature 1

Signin.html

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <meta charset="utf-8">
```

```
  <meta name="viewport" content="width=device-width, initial-scale=1">
```

```
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css"
rel="stylesheet" integrity="sha384-
Zenh87qX5JnK2Jl0vWa8Ck2rdkQ2Bzep5IDxbcnCeuOxjzrPF/et3URy9Bv1WTRi"
crossorigin="anonymous">
```

```
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
OERcA2EqJCMa+/3y+gxIOqMEjwtxJY7qPCqsdltbNJuaOe923+mo//f6V8Qbsw3"
crossorigin="anonymous"></script>
```

```
  <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/font-awesome@4.7.0/css/font-awesome.min.css">
```

```
<tile>signin</tile>
```

```
<link rel="stylesheet" href="style.css">
```

```
</head>
```

```
<style>
```

```
* {  
  box-sizing: border-box;  
}
```

```
/*body
```

```
.full{  
  background-color: #9ec7f3;  
}*/
```

```
.about {  
  background-color: white;  
}
```

```
/*slider css*/
```

```
.sliderpage {box-sizing: border-box}  
body { font-family: Verdana, sans-serif; margin:0;  
  height: 100%;  
  width:100%;  
  margin: 0;  
  padding: 0;  
}  
.mySlides {display: none}
```

```
img {vertical-align: middle;}
```

```
/* Slideshow container */
```

```
.slideshow-container {  
    max-width: 1000px;  
    position: relative;  
    margin: auto;  
}
```

```
/* Next & previous buttons */
```

```
.prev, .next {  
    cursor: pointer;  
    position: absolute;  
    top: 50%;  
    width: auto;  
    padding: 16px;  
    margin-top: -22px;  
    color: white;  
    font-weight: bold;  
    font-size: 18px;  
    transition: 0.6s ease;  
    border-radius: 0 3px 3px 0;  
    user-select: none;  
}
```

```
/* Position the "next button" to the right */
```

```
.next {  
    right: 0;
```

```
border-radius: 3px 0 0 3px;
}
```

```
/* On hover, add a black background color with a little bit see-through */
.prev:hover, .next:hover {
    background-color: rgba(0,0,0,0.8);
}
```

```
/* Caption text */
.text {
    color: #f2f2f2;
    font-size: 15px;
    padding: 8px 12px;
    position: absolute;
    bottom: 8px;
    width: 100%;
    text-align: center;
}
```

```
/* Number text (1/3 etc) */
.numbertext {
    color: #f2f2f2;
    font-size: 12px;
    padding: 8px 12px;
    position: absolute;
    top: 0;
}
```

```
/* The dots/bullets/indicators */
.dot {
  cursor: pointer;
  height: 15px;
  width: 15px;
  margin: 0 2px;
  background-color: #bbb;
  border-radius: 50%;
  display: inline-block;
  transition: background-color 0.6s ease;
}

.active, .dot:hover {
  background-color: #717171;
}

/* Fading animation */
.fade {
  animation-name: fade;
  animation-duration: 1.5s;
}

@keyframes fade {
  from {opacity: .4}
  to {opacity: 1}
}

/* On smaller screens, decrease text size */
```

```
@media only screen and (max-width: 300px) {  
  .prev, .next, .text { font-size: 11px}  
}
```

```
/* Style the body */
```

```
body {  
  font-family: Arial, Helvetica, sans-serif;  
  margin: 0;  
}
```

```
/* Header/logo Title */
```

```
.header {  
  padding: 1px;  
  text-align: left;  
  background: #90bae7;  
  color: rgb(14, 15, 96);  
}
```

```
/* Increase the font size of the heading */
```

```
.header h1 {  
  font-size: 40px;  
}
```

```
/* Style the top navigation bar */
```

```
.navbar {  
  overflow: hidden;  
  background-color: rgb(219, 233, 239);  
}
```

```
/* Style the navigation bar links */
```

```
.navbar a {  
    float: left;  
    display: block;  
    color: rgb(59, 49, 49);  
    text-align: center;  
    padding: 14px 20px;  
    text-decoration: none;  
}
```

```
/* Right-aligned link */
```

```
.navbar a.right {  
    float: right;  
}
```

```
/* Change color on hover */
```

```
.navbar a:hover {  
    background-color: #ddd;  
    color: black;  
}
```

```
.align a:hover {  
    background-color: rgb(248, 72, 72);  
    color: black;  
}
```

```
.align a:active {  
    background-color: rgb(248, 72, 72);  
    color: black;
```



```
}
```

```
/* Column container */
```

```
.row {
```

```
display: -ms-flexbox; /* IE10 */
```

```
display: flex;
```

```
-ms-flex-wrap: wrap; /* IE10 */
```

```
flex-wrap: wrap;
```

```
background-color:#dee9f4 ;
```

```
}
```

```
/* Create two unequal columns that sits next to each other */
```

```
/* Sidebar/left column */
```

```
.side {
```

```
-ms-flex: 30%; /* IE10 */
```

```
flex: 30%;
```

```
background-color: #f1f1f1;
```

```
padding: 20px;
```

```
}
```

```
/* Main column */
```

```
.main {
```

```
-ms-flex: 70%; /* IE10 */
```

```
flex: 70%;
```

```
background-color: white;
```

```
padding: 20px;
```

```
}
```

```
/* Fake image, just for this example */
```

```
.fakeimg {
```

```
    width: 100%;
```

```
    padding: 20px;
```

```
}
```

```
/* Footer */
```

```
.footer {
```

```
    padding: 20px;
```

```
    text-align: center;
```

```
    background: rgb(219, 233, 239);
```

```
}
```

```
.fa {
```

```
    padding: 20px;
```

```
    font-size: 30px;
```

```
    width: 100px;
```

```
    text-align: center;
```

```
    text-decoration: none;
```

```
    margin: 5px 2px;
```

```
}
```

```
.fa:hover {
```

```
    opacity: 0.7;
```

```
}
```

```
.fa-facebook {
```

```
background: #3B5998;  
color: white;  
}
```

```
.fa-twitter {  
background: #64dc13;  
color: white;  
}
```

```
.fa-google {  
background: #39ddb7;  
color: white;  
}
```

```
.fa-linkedin {  
background: #e84c20;  
color: white;  
}
```

```
.fa-youtube {  
background: #c22fca;  
color: white;  
}
```

```
.fa-instagram {  
background: #125688;  
color: white;  
}
```

/* Responsive layout - when the screen is less than 700px wide, make the two columns stack on top of each other instead of next to each other */

@media screen and (max-width: 700px) {

```
.row {  
    flex-direction: column;  
}  
}
```

/* Responsive layout - when the screen is less than 400px wide, make the navigation links stack on top of each other instead of next to each other */

@media screen and (max-width: 400px) {

```
.navbar a {  
    float: none;  
    width: 100%;  
}  
}
```

```
.column {  
    float: left;  
    width: 33.3%;  
    margin-bottom: 16px;  
    padding: 0 8px;  
}
```

```
.card {  
    box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2);  
    margin: 8px;  
}
```

```
.about-section {  
  padding: 50px;  
  text-align: center;  
  background-color: rgb(219, 233, 239);  
  color: white;  
}
```

```
.container {  
  padding: 0 16px;  
}
```

```
.container::after, .row::after {  
  content: "";  
  clear: both;  
  display: table;  
}
```

```
.title {  
  color: grey;  
}
```

```
.button {  
  border: none;  
  outline: 0;  
  display: inline-block;  
  padding: 8px;  
  color: white;  
  background-color: #000;
```

```
text-align: center;
cursor: pointer;
width: 100%;
}
```

```
.button:hover {
  background-color: #555;
}
```

```
@media screen and (max-width: 650px) {
  .column {
    width: 100%;
    display: block;
  }
}
```

```
/*signin*/
```

```
form {border: 3px solid #f1f1f1; align:center;}
```

```
input[type=text], input[type=password] {
  width: 100%;
  padding: 12px 20px;
  margin: 8px 0;
  display: inline-block;
  border: 1px solid #ccc;
  box-sizing: border-box;
}
```

```
button {  
  background-color: #04AA6D;  
  color: white;  
  padding: 14px 20px;  
  margin: 8px 0;  
  border: none;  
  cursor: pointer;  
  width: 100%;  
}
```

```
button:hover {  
  opacity: 0.8;  
}
```

```
.cancelbtn {  
  width: auto;  
  padding: 10px 18px;  
  background-color: #f44336;  
  float: left;  
}
```

```
.imgcontainer {  
  text-align: center;  
  margin: 24px 0 12px 0;  
  float: right;
```

```
}
```

```
img.avatar {  
  width: 40%;  
  border-radius: 50%;  
}
```

```
.container {  
  padding: 16px;  
  align-items: center;
```

```
}
```

```
span.psw {  
  float: left;  
  padding-top: 16px;  
  font-size: larger ;  
  text-decoration: solid blue 1px;  
}
```

```
/* Change styles for span and cancel button on extra small screens */
```

```
@media screen and (max-width: 300px) {  
  span.psw {
```



```
    display: block;
    float: none;
}
.cancelbtn {
    width: 100%;
}
}
.signin1 {

}

/*signuo*/
/* Full-width input fields */
input[type=text], input[type=password] {
    width: 100%;
    padding: 15px;
    margin: 5px 0 22px 0;
    display: inline-block;
    border: none;
    background: #f1f1f1;
}

input[type=text]:focus, input[type=password]:focus {
    background-color: #ddd;
    outline: none;
}

hr {
```

```
border: 1px solid #f1f1f1;
margin-bottom: 25px;
}
```

```
/* Set a style for all buttons */
```

```
button {
    background-color: #04AA6D;
    color: white;
    padding: 14px 20px;
    margin: 8px 0;
    border: none;
    cursor: pointer;
    width: 100%;
    opacity: 0.9;
}
```

```
button:hover {
    opacity: 1;
}
```

```
/* Extra styles for the cancel button */
```

```
.cancelbtn {
    padding: 14px 20px;
    background-color: #f44336;
}
```

```
/* Float cancel and signup buttons and add an equal width */
```

```
.cancelbtn, .signupbtn {
```

```

float: right;
width: 50%;
}

/* Add padding to container elements */
.container {
padding: 16px;
}

/* Clear floats */
.clearfix::after {
content: "";
clear: both;
display: table;
}

/* Change styles for cancel button and signup button on extra small screens */
@media screen and (max-width: 300px) {
.cancelbtn, .signupbtn {
width: 70%;
}
}

</style>

<body class="signin1">
<div class="header navbar" >
<a class="navbar-brand" href="#">

</a>

```

```
<div class="align">
  <a href="/home">Home</a>
  <a href="/about">About Us</a>
```

```
  <a href="/signin">signin</a>
  <a href="/signup">signup</a>
```

```
</div>
```

```
<form action="/home" method="get" style="margin: auto;">
  <div class="imgcontainer" style="text-align: justify;">
    
  </div>
```

```
<div class="container">
  <label for="uname" style="  inline-size: -webkit-fill-available;"><b>Username</b></label>
  <input type="text" placeholder="Enter Username" name="uname" required>
```

```
  <label for="psw"><b>Password</b></label>
  <input type="password" placeholder="Enter Password" name="psw" required>
```

```
  <button type="submit">Login</button>
  <label>
    <input type="checkbox" checked="checked" name="remember"> Remember me
  </label>
```

```
</div>
```

```
<div class="container" style="background-color:#f1f1f1">
```

```
<button type="button" class="cancelbtn">Cancel</button>

<span class="psw"> <a href="#"> <ins>Forgot password?<ins></a></span>

</div>

</form>


<div class="footer">

  <a href="#" class="fa fa-facebook"></a>

  <a href="#" class="fa fa-twitter"></a>

  <a href="#" class="fa fa-google"></a>

  <a href="#" class="fa fa-linkedin"></a>

  <a href="#" class="fa fa-youtube"></a>

  <a href="#" class="fa fa-instagram"></a>

</div>

</body>

</html>
```

signin

signin

Home About Us signin signup

Username

Enter Username

Password

Enter Password

Login

☒ Remember me

[Forgot password?](#) Cancel

f t G in YouTube Instagram

Signup.html

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<meta charset="utf-8">
```

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

```
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css"
rel="stylesheet" integrity="sha384-
Zenh87qX5JnK2Jl0vWa8Ck2rdkQ2Bzep5IDxbcnCeuOxjzrPF/et3URy9Bv1WTRi"
crossorigin="anonymous">
```

```
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
OERcA2EqjJCMA+/3y+gxIOqMEjwtxJY7qPCqsdltbNJuaOe923+mo//f6V8Qbsw3"
crossorigin="anonymous"></script>
```

```
<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/font-awesome@4.7.0/css/font-awesome.min.css">
```

<title>signup</title>

<link rel="stylesheet" href="static\css\style.css">

<style>

* {

box-sizing: border-box;

}

/*body

.full{

background-color: #9ec7f3;

*/

.about {

background-color: white;

}

/*slider css*/

.sliderpage {box-sizing: border-box}

body { font-family: Verdana, sans-serif; margin:0;

height: 100%;

width:100%;

margin: 0;

padding: 0;

}

.mySlides {display: none}

img {vertical-align: middle;}

/* Slideshow container */

```
.slideshow-container {  
    max-width: 1000px;  
    position: relative;  
    margin: auto;  
}
```

```
/* Next & previous buttons */
```

```
.prev, .next {  
    cursor: pointer;  
    position: absolute;  
    top: 50%;  
    width: auto;  
    padding: 16px;  
    margin-top: -22px;  
    color: white;  
    font-weight: bold;  
    font-size: 18px;  
    transition: 0.6s ease;  
    border-radius: 0 3px 3px 0;  
    user-select: none;  
}
```

```
/* Position the "next button" to the right */
```

```
.next {  
    right: 0;  
    border-radius: 3px 0 0 3px;  
}
```



```
/* On hover, add a black background color with a little bit see-through */
```

```
.prev:hover, .next:hover {  
    background-color: rgba(0,0,0,0.8);  
}
```

```
/* Caption text */
```

```
.text {  
    color: #f2f2f2;  
    font-size: 15px;  
    padding: 8px 12px;  
    position: absolute;  
    bottom: 8px;  
    width: 100%;  
    text-align: center;  
}
```

```
/* Number text (1/3 etc) */
```

```
.numbertext {  
    color: #f2f2f2;  
    font-size: 12px;  
    padding: 8px 12px;  
    position: absolute;  
    top: 0;  
}
```

```
/* The dots/bullets/indicators */
```

```
.dot {  
    cursor: pointer;
```

```
height: 15px;
width: 15px;
margin: 0 2px;
background-color: #bbb;
border-radius: 50%;
display: inline-block;
transition: background-color 0.6s ease;
}
```

```
.active, .dot:hover {
  background-color: #717171;
}
```

```
/* Fading animation */
.fade {
  animation-name: fade;
  animation-duration: 1.5s;
}
```

```
@keyframes fade {
  from { opacity: .4 }
  to { opacity: 1 }
}
```

```
/* On smaller screens, decrease text size */
@media only screen and (max-width: 300px) {
  .prev, .next, .text { font-size: 11px }
}
```

```
/* Style the body */
```

```
body {  
    font-family: Arial, Helvetica, sans-serif;  
    margin: 0;  
}
```

```
/* Header/logo Title */
```

```
.header {  
    padding: 1px;  
    text-align: left;  
    background: #90bae7;  
    color: rgb(14, 15, 96);  
}
```

```
/* Increase the font size of the heading */
```

```
.header h1 {  
    font-size: 40px;  
}
```

```
/* Style the top navigation bar */
```

```
.navbar {  
    overflow: hidden;  
    background-color: rgb(219, 233, 239);  
}
```

```
/* Style the navigation bar links */
```

```
.navbar a {  
    float: left;
```

```
display: block;
color: rgb(59, 49, 49);
text-align: center;
padding: 14px 20px;
text-decoration: none;
}
```

```
/* Right-aligned link */
```

```
.navbar a.right {
    float: right;
}
```

```
/* Change color on hover */
```

```
.navbar a:hover {
    background-color: #ddd;
    color: black;
}
```

```
.align a:hover {
    background-color: rgb(248, 72, 72);
    color: black;
}
```

```
.align a:active {
    background-color: rgb(248, 72, 72);
    color: black;
}
```

```
/* Column container */
```

```
.row {  
  display: -ms-flexbox; /* IE10 */  
  display: flex;  
  -ms-flex-wrap: wrap; /* IE10 */  
  flex-wrap: wrap;  
  background-color: #dee9f4 ;  
}
```

```
/* Create two unequal columns that sits next to each other */
```

```
/* Sidebar/left column */
```

```
.side {  
  -ms-flex: 30%; /* IE10 */  
  flex: 30%;  
  background-color: #f1f1f1;  
  padding: 20px;  
}
```

```
/* Main column */
```

```
.main {  
  -ms-flex: 70%; /* IE10 */  
  flex: 70%;  
  background-color: white;  
  padding: 20px;  
}
```

```
/* Fake image, just for this example */
```

```
.fakeimg {
```

```
width: 100%;  
padding: 20px;  
}
```

```
/* Footer */
```

```
.footer {  
padding: 20px;  
text-align: center;  
background: rgb(219, 233, 239);  
}
```

```
.fa {  
padding: 20px;  
font-size: 30px;  
width: 100px;  
text-align: center;  
text-decoration: none;  
margin: 5px 2px;  
}
```

```
.fa:hover {  
opacity: 0.7;  
}
```

```
.fa-facebook {  
background: #3B5998;  
color: white;  
}
```

```
.fa-twitter {  
    background: #64dc13;  
    color: white;  
}
```

```
.fa-google {  
    background: #39ddb7;  
    color: white;  
}
```

```
.fa-linkedin {  
    background: #e84c20;  
    color: white;  
}
```

```
.fa-youtube {  
    background: #c22fca;  
    color: white;  
}
```

```
.fa-instagram {  
    background: #125688;  
    color: white;  
}
```

/* Responsive layout - when the screen is less than 700px wide, make the two columns stack on top of each other instead of next to each other */

```
@media screen and (max-width: 700px) {  
    .row {
```

```
    flex-direction: column;
  }
}

/* Responsive layout - when the screen is less than 400px wide, make the navigation links stack
on top of each other instead of next to each other */
@media screen and (max-width: 400px) {
  .navbar a {
    float: none;
    width: 100%;
  }
}

.column {
  float: left;
  width: 33.3%;
  margin-bottom: 16px;
  padding: 0 8px;
}

.card {
  box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2);
  margin: 8px;
}

.about-section {
  padding: 50px;
  text-align: center;
  background-color: rgb(219, 233, 239);
}
```



```
    color: white;
}
```

```
.container {
    padding: 0 16px;
}
```

```
.container::after, .row::after {
    content: "";
    clear: both;
    display: table;
}
```

```
.title {
    color: grey;
}
```

```
.button {
    border: none;
    outline: 0;
    display: inline-block;
    padding: 8px;
    color: white;
    background-color: #000;
    text-align: center;
    cursor: pointer;
    width: 100%;
}
```

```
.button:hover {  
    background-color: #555;  
}
```

```
@media screen and (max-width: 650px) {  
    .column {  
        width: 100%;  
        display: block;  
    }  
}
```

```
/*signin*/
```

```
form {border: 3px solid #f1f1f1; align:center;}
```

```
input[type=text], input[type=password] {  
    width: 100%;  
    padding: 12px 20px;  
    margin: 8px 0;  
    display: inline-block;  
    border: 1px solid #ccc;  
    box-sizing: border-box;  
}
```

```
button {  
    background-color: #04AA6D;  
    color: white;
```

```
padding: 14px 20px;
margin: 8px 0;
border: none;
cursor: pointer;
width: 100%;
}
```

```
button:hover {
  opacity: 0.8;
}
```

```
.cancelbtn {
  width: auto;
  padding: 10px 18px;
  background-color: #f44336;
  float: left;
}
```

```
.imgcontainer {
  text-align: center;
  margin: 24px 0 12px 0;
  float: right;
}
```

```
img.avatar {
```

```
width: 40%;  
border-radius: 50%;  
}
```

```
.container {  
padding: 16px;  
align-items: center;
```

```
}
```

```
span.psw {  
float: left;  
padding-top: 16px;  
font-size: larger ;  
text-decoration: solid blue 1px;  
}
```

```
/* Change styles for span and cancel button on extra small screens */
```

```
@media screen and (max-width: 300px) {
```

```
span.psw {  
display: block;  
float: none;  
}
```

```
.cancelbtn {
```

```
        width: 100%;
    }
}
.signin1 {

}

/*signuo*/
/* Full-width input fields */
input[type=text], input[type=password] {
    width: 100%;
    padding: 15px;
    margin: 5px 0 22px 0;
    display: inline-block;
    border: none;
    background: #f1f1f1;
}

input[type=text]:focus, input[type=password]:focus {
    background-color: #ddd;
    outline: none;
}

hr {
    border: 1px solid #f1f1f1;
    margin-bottom: 25px;
}
```

```
/* Set a style for all buttons */
```

```
button {  
    background-color: #04AA6D;  
    color: white;  
    padding: 14px 20px;  
    margin: 8px 0;  
    border: none;  
    cursor: pointer;  
    width: 100%;  
    opacity: 0.9;  
}
```

```
button:hover {  
    opacity: 1;  
}
```

```
/* Extra styles for the cancel button */
```

```
.cancelbtn {  
    padding: 14px 20px;  
    background-color: #f44336;  
}
```

```
/* Float cancel and signup buttons and add an equal width */
```

```
.cancelbtn, .signupbtn {  
    float: right;  
    width: 50%;  
}
```

```
/* Add padding to container elements */
```

```
.container {  
  padding: 16px;  
}
```

```
/* Clear floats */
```

```
.clearfix::after {  
  content: "";  
  clear: both;  
  display: table;  
}
```

```
/* Change styles for cancel button and signup button on extra small screens */
```

```
@media screen and (max-width: 300px) {
```

```
  .cancelbtn, .signupbtn {  
    width: 70%;  
  }  
}
```

```
</style>
```

```
</head>
```

```
<style>
```

```
  input[type=text], input[type=password] {  
width: 100%;  
padding: 15px;  
margin: 5px 0 22px 0;  
display: inline-block;  
border: none;  
background: #f1f1f1;
```

```
}
```

```
input[type=text]:focus, input[type=password]:focus {  
    background-color: #ddd;  
    outline: none;  
}
```

```
hr {  
    border: 1px solid #f1f1f1;  
    margin-bottom: 25px;  
}
```

```
/* Set a style for all buttons */  
button {  
    background-color: #04AA6D;  
    color: white;  
    padding: 14px 20px;  
    margin: 8px 0;  
    border: none;  
    cursor: pointer;  
    width: 100%;  
    opacity: 0.9;  
}
```

```
button:hover {  
    opacity:1;  
}
```



```
/* Extra styles for the cancel button */
```

```
.cancelbtn {  
  padding: 14px 20px;  
  background-color: #f44336;  
}
```

```
/* Float cancel and signup buttons and add an equal width */
```

```
.cancelbtn, .signupbtn {  
  float: left;  
  width: 50%;  
}
```

```
/* Add padding to container elements */
```

```
.container {  
  padding: 16px;  
}
```

```
/* Clear floats */
```

```
.clearfix::after {  
  content: "";  
  clear: both;  
  display: table;  
}
```

```
/* Change styles for cancel button and signup button on extra small screens */
```

```
@media screen and (max-width: 300px) {  
  .cancelbtn, .signupbtn {  
    width: 100%;  
  }
```

```
}  
}
```

```
</style>
```

```
<body>
```

```
<div class="header navbar" >
```

```
<a class="navbar-brand" href="#">
```

```

```

```
</a>
```

```
<div class="align">
```

```
<a href="/home">Home</a>
```

```
<a href="/about">About Us</a>
```

```
<a href="/signin">signin</a>
```

```
<a href="/signup">signup</a>
```

```
<a href="upload_image.html"><i>Upload image</i></a>
```

```
</div>
```

```
<form action="{ { url_for('value_insert') }}" method = "POST" style="margin: auto;">
```

```
<div class="container">
```

```
<p>Please fill in this form to create an account.</p>
```

```
<hr>
```

```
<label for="email"><b>Email</b></label>
```

<input type="text" placeholder="Enter Email" name="Email" required>

<label for="psw">Password</label>

<input type="password" placeholder="Enter Password" name="password" required>

<label for="psw-repeat">Repeat Password</label>

<input type="password" placeholder="Repeat Password" name="rpassword" required>

<label>

<input type="checkbox" checked="checked" name="remember" style="margin-bottom:15px"> Remember me

</label>

<div class="clearfix">

<button type="button" class="cancelbtn">Cancel</button>

<button type="submit" class="signupbtn">Sign Up</button>

</div>

</div>

</form>

<div class="footer">


```

        <a href="#" class="fa fa-instagram"></a>
    </div>
</body>
</html>

```

signup

7.2 Feature 2

Index.html

```

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

        .row {

```

```
background-color: gray;  
}
```

```
h2 {  
background-color: #8f405c;  
height:80px;  
font-size: 75px;  
}
```

```
input{  
  
background-color: #420e58;  
border: none;  
color: white;  
padding: 15px 32px;  
text-align: center;  
text-decoration: none;  
display: inline-block;  
font-size: 16px;  
border-radius: 12px;  
margin-left: 60px;  
margin-top: -30px;  
}
```

```
img{  
border: 2px solid red;  
margin-top: -500px;  
margin-left: 10px;
```

```

    }
    .about{
        width: 300px;
        border: 15px solid green;
        padding: 50px;
        margin: 20px;
        margin-left:700px;

    }
</style>
</head>

<body>
    <div class="container">
        <div class="row">
            <div class="col-lg-8 offset-lg-2">

                <h2 class="mt-5">Nutritions Assistant</h2>
                <div id="myform">
                    <form method="post" action="{ { url_for('tasks') } }">
                        <input type="submit" value="Stop/Start" name="stop" />
                        <input type="submit" value="Capture" name="click" />
                        <input type="submit" value="Detect" name="detect" />
                    </form>
                </div>

                <div class="about">By identifying the supplied food image, this project attempts to
create a web application that automatically calculates food qualities like ingredients and

```

nutritional value. For precise food recognition and to determine the nutritional value of the recognized item, our solution uses a food detection model and food

```
<ol>
  <li>First click on stop and start for starting </li>
  <li>then click on capture to take a image which nutrients you want to know </li>
  <li>click on detect button for see the nutrients list</li>
  <br>
  <br>
  <li>The health issues most of the time depends on our diet and nutrition</li>
</ol>
</APIs></div>
```

```

```

```
</div>
</div>
</div>
</body>
```

```
</html>
```

Predict.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
<title>Document</title>

<style>
  .container{
    border:2px solid black;
    background-color: gray;
  }
</style>

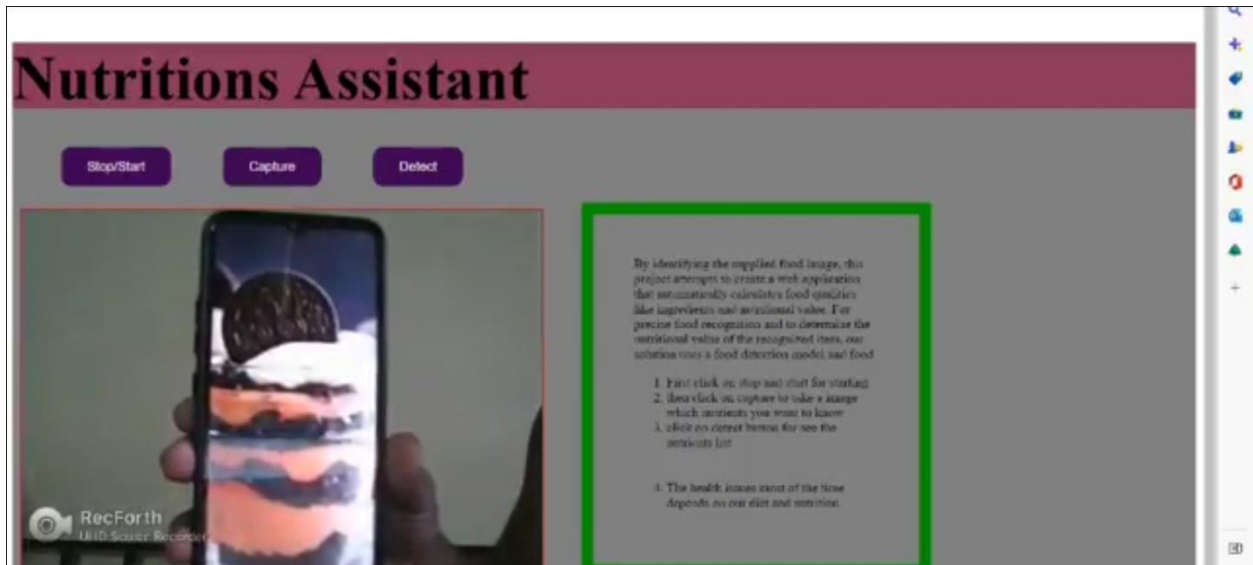
</head>
<body>
  <div class="container">
    <div class="row">
      <div class="col-lg-8 offset-lg-2">

        <div class="container">
          <h2 class="mt-5"> Assistant</h2>
          <h1>Our model said that it is a {{name}}</h1>
          <h1>and Nutrients present is {{name}} are following</h1>
          <p>{{data}}</p>
        </div>
        <table>
          <th>

          </th>
        </table>

      </div>
    </div>
  </div>
</body>
</div>
```


[Home](http://127.0.0.1:5000/)



8.TESTING

8.1 Test Class

NFT - Risk Assessment									
S.No	Project Name	Scope/feature	Functional Change	Hardware Changes	Software Changes	Impact of Downtime	Load/Volume Changes	Risk Score	Justification
1	Nutrition Assistant Application	New	Moderate	Low	Moderate	Hardware specification is our Down	>10 to 30%	ORANGE	We alter Our hardware device 5 times.

NFT - Detailed Test Plan				
S.No	Project Overview	NFT Test approach	assumptions/Dependencies/Risks	Approvals/SignOff
1	Nutrition Assistant Application	Performance and usability	App Crash/Developer Team/server	Approved

End Of Test Report								
S.No	Project Overview	NFT Test approach	NFR - Met	Test Outcome	GO/NO-GO decision	Recommendations	Identified Defects (Detected/Closed/Open)	Approvals/SignOff
1	Nutrition Assistant Application	Stress	Performance	DB Storage, Web Application	GO Decision	High Performance Cloud Server	Closed	Approved

8.2 User Acceptance Testing

1. Purpose of Document

The purpose of this document is to briefly explain the test coverage and open issues of the Nutrition Assistant Application project at the time of the release to User Acceptance Testing (UAT).

2. Defect Analysis

This report shows the number of resolved or closed bugs at each severity level, and how they were resolved

Resolution	Severity1	Severity2	Severity3	Severity4	Subtotal
By Design	10	4	2	3	20
Duplicate	1	0	3	0	4
External	2	3	0	1	6
Fixed	11	2	4	20	37
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	24	14	13	26	77

3. TestCaseAnalysis

This report shows the number of test cases that have passed, failed, and untested

Section	TotalCases	Not Tested	Fail	Pass
PrintEngine	7	0	0	7
ClientApplication	51	0	0	51
Security	2	0	0	2
OutsourceShipping	3	0	0	3
ExceptionReporting	9	0	0	9
FinalReportOutput	4	0	0	4
VersionControl	2	0	0	2

9.RESULTS

9.1 Performance Metrics

There are a few key performance metrics that are important to track for a nutrition assistance application. These metrics include:

1. User satisfaction: This can be tracked through surveys or interviews with users of the application. It is important to track how satisfied users are with the application in order to gauge its success.
2. Engagement: This can be tracked by looking at how often users use the application and how long they use it for. This will give insight into how useful the application is for users.
3. Nutrition knowledge: This can be tracked by administering pre and post tests to users of the application. This will show how much users have learned about nutrition through using the application.
4. Healthy eating habits: This can be tracked by looking at users' dietary records before and after using the application. This will show whether the application has helped users to develop healthier eating habits.

10. ADVANTAGES & DISADVANTAGES

Advantage:

- By Using our Nourish Nutri Aid all the users will See their nutritional status in real time images.
- They can Scan their food and upload then get their results.
- Additionally they can also see their Exercise plan

Disadvantage:

The disadvantage of our project is the user will also see the voice assistant, it will be recover in future.

11. CONCLUSION

Good nutrition promotes not only better physical health and reduced susceptibility to disease, but has also been demonstrated to contribute to cognitive development and academic success. By using our nutria Assistant application all should see the which can analyze real-time images of a meal and analyze it for nutritional content which can be very handy and improves the dietary habits, and therefore, helps in maintaining a healthy lifestyle

12. FUTURE SCOPE

The future scope of this is even a child can analyze their nutrition value and their diet maintains by scan their food.

13. APPENDIX

Source Code

Python Code:

App.py

```
from flask import Flask, render_template, Response, request, redirect, url_for
import cv2
import ibm_db
import datetime, time
import os, sys
import numpy as np
from threading import Thread

## csv code
import pandas as pd

read_file = pd.read_excel ("Book.xlsx")
read_file.to_csv ("Test.csv",
                  index = None,
                  header=True)

df = pd.DataFrame(pd.read_csv("Test.csv"))
```

```

df.to_csv("Test.csv")

df=df.set_index("Food Name")

def Nutrients(Name):

    name=Name

    return(df.loc[(name),:])

##

global capture,rec_frame, grey, switch, neg, face, rec, out,p,d

capture=0

grey=0

neg=0

face=0

switch=1

rec=0

# ML

import keras

import cv2

import tensorflow as tf

#import PIL.Image

#from tensorflow.keras.utils import to_categorical

#from tensorflow.keras.preprocessing.image import load_img, img_to_array

from keras_preprocessing.image import load_img,img_to_array

#from tensorflow.python.keras.preprocessing.image import ImageDataGenerator

#from keras.preprocessing.image import ImageDataGenerator

#import tensorflow.compat.v2 as tf

from keras.models import load_model

model = keras.models.load_model('Daiyan.h5')

import numpy as np

##

```

```

import numpy as np

CATEGORIES = ['Vegetable-Fruit', 'Egg', 'Bread', 'Soup', 'Seafood', 'Meat', 'vada pav', 'Fried
food', 'pizza', 'Dessert', 'Dairy product', 'Rice', 'burger', 'Noodles-Pasta']

def image(path):

    img = cv2.imread(path, cv2.IMREAD_GRAYSCALE)

    new_arr = cv2.resize(img, (60, 60))

    new_arr = np.array(new_arr)

    new_arr = new_arr.reshape(-1, 60, 60, 1)

    return new_arr

#make shots directory to save pics

try:

    os.mkdir('./shots')

except OSError as error:

    pass

#instantiate flask app

app = Flask(__name__, template_folder='./templates')

camera = cv2.VideoCapture(0)

# def Path(d):

#     a=d

#     return a

@app.route('/')

def home():

    return render_template("home.html")

@app.route('/signup')

def signup():

    return render_template("signup.html")

@app.route('/value_insert', methods = ['GET', 'POST'])

```

```

def value_insert():
    Email = request.form['Email']
    password = request.form['password']
    rpassword = request.form['rpassword']

    insert_sql = "INSERT INTO signup VALUES (?, ?, ?)"
    prep_stmt = ibm_db.prepare(conn, insert_sql)
    ibm_db.bind_param(prepare_stmt, 1, Email)
    ibm_db.bind_param(prepare_stmt, 2, password)
    ibm_db.bind_param(prepare_stmt, 3, rpassword)
    ibm_db.execute(prepare_stmt)

    return render_template('signup.html')

@app.route('/signin')
def signin():
    return render_template("signin.html")

def gen_frames(): # generate frame by frame from camera
    global out, capture, rec_frame, d
    while True:
        success, frame = camera.read()
        if success:
            if(capture):
                capture=0
                now = datetime.datetime.now()
                p = os.path.sep.join(['shots', "shot_{}".format(str(now).replace(":", ""))])
                #d=("C:\\Users\\anish\\Desktop\\IBM2\\"+p)

```

```

        cv2.imwrite(p, frame)

        d=p

    try:
        ret, buffer = cv2.imencode('.jpg', cv2.flip(frame,1))
        frame = buffer.tobytes()
        yield (b'--frame\r\n'
               b'Content-Type: image/jpeg\r\n\r\n' + frame + b'\r\n')
    except Exception as e:
        pass

    else:
        pass

@app.route('/index')
def index():
    return render_template('index.html')

@app.route('/uplod')
def uplod():
    return render_template('index.html')

@app.route('/video_feed')
def video_feed():
    return Response(gen_frames(), mimetype='multipart/x-mixed-replace; boundary=frame')

```



```

@app.route('/requests',methods=['POST','GET'])
def tasks():
    global switch,camera
    if request.method == 'POST':
        if request.form.get('click') == 'Capture':
            global capture
            capture=1

        elif request.form.get('detect') == 'Detect':
            # prediction = model.predict([image("C:\\Users\\anish\\Desktop\\IBM2\\download.jfif")])

            path = os.getcwd()
            print(d)
            p=os.path.join(path, "", d )

            prediction = model.predict([image(p)])

            name=(CATEGORIES[prediction.argmax()])
            Product_name=name
            data=Nutrients(Product_name)
            return render_template('Predect.html',name=name,data=data)

        elif request.form.get('stop') == 'Stop/Start':
            if(switch==1):
                switch=0
                camera.release()
                cv2.destroyAllWindows()

```

else:

camera = cv2.VideoCapture(0)

switch=1

elif request.method=='GET':

return render_template('index.html')

return render_template('index.html')

if __name__ == '__main__':

app.run()

camera.release()

cv2.destroyAllWindows()

home.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width, initial-scale=1">

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-

Zenh87qX5JnK2Jl0vWa8Ck2rdkQ2Bzep5IDxbcnCeuOxjzrPF/et3URy9Bv1WTRi"

crossorigin="anonymous">

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.min.js" integrity="sha384-

OERcA2EqjJCMA+/3y+gxIOqMEjwtxJY7qPCqsdltbNJuaOe923+mo//f6V8Qbsw3"

crossorigin="anonymous"></script>

```
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css">
```

```
<title>Home</title>
```

```
<link rel="stylesheet" href="style.css">
```

```
</head>
```

```
<style>
```

```
* {
```

```
  box-sizing: border-box;
```

```
}
```

```
/*body
```

```
.full{
```

```
  background-color: #9ec7f3;
```

```
*/
```

```
.about {
```

```
  background-color: white;
```

```
}
```

```
/*slider css*/
```

```
.sliderpage {box-sizing: border-box}
```

```
body { font-family: Verdana, sans-serif; margin:0;
```

```
  height: 100%;
```

```
  width:100%;
```

```
  margin: 0;
```

```
  padding: 0;
```

```
}
```

```
.mySlides {display: none}  
img {vertical-align: middle;}
```

```
/* Slideshow container */  
.slideshow-container {  
  max-width: 1000px;  
  position: relative;  
  margin: auto;  
}
```

```
/* Next & previous buttons */  
.prev, .next {  
  cursor: pointer;  
  position: absolute;  
  top: 50%;  
  width: auto;  
  padding: 16px;  
  margin-top: -22px;  
  color: white;  
  font-weight: bold;  
  font-size: 18px;  
  transition: 0.6s ease;  
  border-radius: 0 3px 3px 0;  
  user-select: none;  
}
```

```
/* Position the "next button" to the right */  
.next {
```

```
right: 0;
border-radius: 3px 0 0 3px;
}
```

```
/* On hover, add a black background color with a little bit see-through */
.prev:hover, .next:hover {
    background-color: rgba(0,0,0,0.8);
}
```

```
/* Caption text */
.text {
    color: #f2f2f2;
    font-size: 15px;
    padding: 8px 12px;
    position: absolute;
    bottom: 8px;
    width: 100%;
    text-align: center;
}
```

```
/* Number text (1/3 etc) */
.numbertext {
    color: #f2f2f2;
    font-size: 12px;
    padding: 8px 12px;
    position: absolute;
    top: 0;
}
```

```
/* The dots/bullets/indicators */
.dot {
  cursor: pointer;
  height: 15px;
  width: 15px;
  margin: 0 2px;
  background-color: #bbb;
  border-radius: 50%;
  display: inline-block;
  transition: background-color 0.6s ease;
}

.active, .dot:hover {
  background-color: #717171;
}

/* Fading animation */
.fade {
  animation-name: fade;
  animation-duration: 1.5s;
}

@keyframes fade {
  from { opacity: .4 }
  to { opacity: 1 }
}
```

```
/* On smaller screens, decrease text size */
@media only screen and (max-width: 300px) {
  .prev, .next, .text { font-size: 11px}
}

/* Style the body */
body {
  font-family: Arial, Helvetica, sans-serif;
  margin: 0;
}

/* Header/logo Title */
.header {
  padding: 1px;
  text-align: left;
  background: #90bae7;
  color: rgb(14, 15, 96);
}

/* Increase the font size of the heading */
.header h1 {
  font-size: 40px;
}

/* Style the top navigation bar */
.navbar {
  overflow: hidden;
  background-color: rgb(219, 233, 239);
}
```

```
/* Style the navigation bar links */
```

```
.navbar a {  
    float: left;  
    display: block;  
    color: rgb(59, 49, 49);  
    text-align: center;  
    padding: 14px 20px;  
    text-decoration: none;  
}
```

```
/* Right-aligned link */
```

```
.navbar a.right {  
    float: right;  
}
```

```
/* Change color on hover */
```

```
.navbar a:hover {  
    background-color: #ddd;  
    color: black;  
}
```

```
.align a:hover {  
    background-color: rgb(248, 72, 72);  
    color: black;  
}
```

```
.align a:active {  
    background-color: rgb(248, 72, 72);
```



```
    color: black;
}
```

```
/* Column container */
```

```
.row {
    display: -ms-flexbox; /* IE10 */
    display: flex;
    -ms-flex-wrap: wrap; /* IE10 */
    flex-wrap: wrap;
    background-color: #dee9f4 ;
}
```

```
/* Create two unequal columns that sits next to each other */
```

```
/* Sidebar/left column */
```

```
.side {
    -ms-flex: 30%; /* IE10 */
    flex: 30%;
    background-color: #f1f1f1;
    padding: 20px;
}
```

```
/* Main column */
```

```
.main {
    -ms-flex: 70%; /* IE10 */
    flex: 70%;
    background-color: white;
    padding: 20px;
}
```

```
/* Fake image, just for this example */
```

```
.fakeimg {
```

```
    width: 100%;
```

```
    padding: 20px;
```

```
}
```

```
/* Footer */
```

```
.footer {
```

```
    padding: 20px;
```

```
    text-align: center;
```

```
    background: rgb(219, 233, 239);
```

```
}
```

```
.fa {
```

```
    padding: 20px;
```

```
    font-size: 30px;
```

```
    width: 100px;
```

```
    text-align: center;
```

```
    text-decoration: none;
```

```
    margin: 5px 2px;
```

```
}
```

```
.fa:hover {
```

```
    opacity: 0.7;
```

```
}
```

```
.fa-facebook {  
  background: #3B5998;  
  color: white;  
}
```

```
.fa-twitter {  
  background: #64dc13;  
  color: white;  
}
```

```
.fa-google {  
  background: #39ddb7;  
  color: white;  
}
```

```
.fa-linkedin {  
  background: #e84c20;  
  color: white;  
}
```

```
.fa-youtube {  
  background: #c22fca;  
  color: white;  
}
```

```
.fa-instagram {  
  background: #125688;  
  color: white;  
}
```

```
}
```

```
/* Responsive layout - when the screen is less than 700px wide, make the two columns stack on top of each other instead of next to each other */
```

```
@media screen and (max-width: 700px) {
```

```
  .row {
```

```
    flex-direction: column;
```

```
  }
```

```
}
```

```
/* Responsive layout - when the screen is less than 400px wide, make the navigation links stack on top of each other instead of next to each other */
```

```
@media screen and (max-width: 400px) {
```

```
  .navbar a {
```

```
    float: none;
```

```
    width: 100%;
```

```
  }
```

```
}
```

```
.column {
```

```
  float: left;
```

```
  width: 33.3%;
```

```
  margin-bottom: 16px;
```

```
  padding: 0 8px;
```

```
}
```

```
.card {
```

```
  box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2);
```

```
  margin: 8px;
```

```
}
```

```
.about-section {  
  padding: 50px;  
  text-align: center;  
  background-color: rgb(219, 233, 239);  
  color: white;  
}
```

```
.container {  
  padding: 0 16px;  
}
```

```
.container::after, .row::after {  
  content: "";  
  clear: both;  
  display: table;  
}
```

```
.title {  
  color: grey;  
}
```

```
.button {  
  border: none;  
  outline: 0;  
  display: inline-block;  
  padding: 8px;  
  color: white;
```

```
background-color: #000;
text-align: center;
cursor: pointer;
width: 100%;
}
```

```
.button:hover {
background-color: #555;
}
```

```
@media screen and (max-width: 650px) {
.column {
width: 100%;
display: block;
}
}
```

```
/*signin*/
```

```
form {border: 3px solid #f1f1f1; align:center;}
```

```
input[type=text], input[type=password] {
width: 100%;
padding: 12px 20px;
margin: 8px 0;
display: inline-block;
border: 1px solid #ccc;
box-sizing: border-box;
```

```
}
```

```
button {  
  background-color: #04AA6D;  
  color: white;  
  padding: 14px 20px;  
  margin: 8px 0;  
  border: none;  
  cursor: pointer;  
  width: 100%;  
}
```

```
button:hover {  
  opacity: 0.8;  
}
```

```
.cancelbtn {  
  width: auto;  
  padding: 10px 18px;  
  background-color: #f44336;  
  float: left;  
}
```

```
.imgcontainer {  
  text-align: center;  
  margin: 24px 0 12px 0;
```

```

float: right;

}

img.avatar {
  width: 40%;
  border-radius: 50%;
}

.container {
  padding: 16px;
  align-items: center;
}

span.psw {
  float: left;
  padding-top: 16px;
  font-size: larger ;
  text-decoration: solid blue 1px;
}

/* Change styles for span and cancel button on extra small screens */
@media screen and (max-width: 300px) {
  span.psw {
    display: block;
    float: none;
  }
  .cancelbtn {

```



```
        width: 100%;
    }
}
.signin1 {

}

/*signuo*/
/* Full-width input fields */
input[type=text], input[type=password] {
    width: 100%;
    padding: 15px;
    margin: 5px 0 22px 0;
    display: inline-block;
    border: none;
    background: #f1f1f1;
}

input[type=text]:focus, input[type=password]:focus {
    background-color: #ddd;
    outline: none;
}

hr {
    border: 1px solid #f1f1f1;
    margin-bottom: 25px;
}
```

```
/* Set a style for all buttons */
```

```
button {  
    background-color: #04AA6D;  
    color: white;  
    padding: 14px 20px;  
    margin: 8px 0;  
    border: none;  
    cursor: pointer;  
    width: 100%;  
    opacity: 0.9;  
}
```

```
button:hover {  
    opacity: 1;  
}
```

```
/* Extra styles for the cancel button */
```

```
.cancelbtn {  
    padding: 14px 20px;  
    background-color: #f44336;  
}
```

```
/* Float cancel and signup buttons and add an equal width */
```

```
.cancelbtn, .signupbtn {  
    float: right;  
    width: 50%;  
}
```

```
/* Add padding to container elements */
```

```
.container {  
  padding: 16px;  
}
```

```
/* Clear floats */
```

```
.clearfix::after {  
  content: "";  
  clear: both;  
  display: table;  
}
```

```
/* Change styles for cancel button and signup button on extra small screens */
```

```
@media screen and (max-width: 300px) {
```

```
  .cancelbtn, .signupbtn {  
    width: 70%;  
  }  
}
```

```
</style>
```

```
<body class="full">
```

```
<div class="header navbar" >
```

```
  <a class="navbar-brand" href="#">
```

```
    
```


<div class="align">

Home

About Us

signin

signup

</div>

</div>

<div class="sliderpage" >

<div class="slideshow-container">

<div class="mySlides fade">

<div class="numbertext">2 / 3</div>

</div>

<div class="mySlides fade">

<div class="numbertext">3 / 3</div>

</div>

</div>

</div>

<div style="text-align:center">

</div>

<script>

let slideIndex = 0;

showSlides();

function showSlides() {

let i;

let slides = document.getElementsByClassName("mySlides");

let dots = document.getElementsByClassName("dot");

for (i = 0; i < slides.length; i++) {

slides[i].style.display = "none";

}

slideIndex++;

```
if (slideIndex > slides.length) {slideIndex = 1}
for (i = 0; i < dots.length; i++) {
    dots[i].className = dots[i].className.replace(" active", "");
}
slides[slideIndex-1].style.display = "block";
dots[slideIndex-1].className += " active";
setTimeout(showSlides, 1000); // Change image every 2 seconds
}
</script>
</div>
```

<p> We have always heard the word ‘health’ and ‘fitness’. We use it ourselves when we say phrases like ‘health is wealth’ and ‘fitness is the key’. What does the word health really mean? It implies the idea of ‘being well’. We call a person healthy and fit when he/she function well physically as well as mentally.

</p>

<p>

Factors Affecting our Health and Fitness

Good health and fitness is not something which one can achieve entirely on our own. It depends on their physical environment and the quality of food intake. We live in villages, towns, and cities.

In such places, even our physical environment affects our health. Therefore, our social responsibility of pollution-free environment directly affects our health. Our day-to-day habits also determine our fitness level. The quality of food, air, water all helps in building our fitness level.

Role of Nutritious Diet on our Health and Fitness

The first thing about where fitness starts is food. We should take nutritious food. Food rich in protein, vitamins, minerals, and carbohydrates is very essential. Protein is necessary for body

growth. Carbohydrates provide the required energy in performing various tasks. Vitamin and minerals help in building bones and boosting our immune system.

However, taking food in uneven quantity is not good for the body. Taking essential nutrients in adequate amount is called a balanced diet. Taking a balanced diet keep body and mind strong and healthy. Good food helps in better sleep, proper brain functioning and healthy body weight.

Include vegetables, fruits, and pulses in daily diet. One must have a three-course meal. Having roughage helps in cleaning inner body organs. Healthy food habit prevents various diseases. Reducing the amount of fat in the diet prevents cholesterol and heart diseases.

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Impact of Exercise on our Health

Routine exercise helps improve our muscle power. Exercise helps in good oxygen supply and blood flow throughout the body. Heart and lungs work efficiently. Our bones get strong and joints have the pain free movement.

We should daily spend at least twenty minutes in our exercise. Daily morning walk improves our fitness level. We should avoid strenuous Gym activities. Exercise burns our fat and controls the cholesterol level in the body. Various outdoor games like cricket, football, volleyball, etc keeps our body fit. Regular exercise maintains our body shape.

</p>

</div>

</div>

<script>

```
window.watsonAssistantChatOptions = {  
  integrationID: "41973ae4-7b71-4271-8c25-b2aa6135ccb7", // The ID of this integration.  
  region: "jp-tok", // The region your integration is hosted in.  
  serviceInstanceID: "460a9ce0-51f9-43bb-bd98-a4571c6903e8", // The ID of your service  
  instance.  
  onLoad: function(instance) { instance.render(); }
```

```

};

setTimeout(function(){

    const t=document.createElement('script');

    t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest') + "/WatsonAssistantChatEntry.js";

    document.head.appendChild(t);

});
</script>

<div class="footer">

    <a href="#" class="fa fa-facebook"></a>

    <a href="#" class="fa fa-twitter"></a>

    <a href="#" class="fa fa-google"></a>

    <a href="#" class="fa fa-linkedin"></a>

    <a href="#" class="fa fa-youtube"></a>

    <a href="#" class="fa fa-instagram"></a>

</div>

</body>

</html>

```

Dockerfile

FROM python:3.9.15-slim

Add ./build

WORKDIR /build

RUN pip install -r requirements.txt

RUN pip install opencv-python

CMD ["python", "app.py"]

GitHub & Project Demo Link

Github link:

<https://github.com/IBM-EPBL/IBM-Project-42643-1660673099>

Project Demo Link

<https://drive.google.com/file/d/1QSluDkD5licvIbTT8Sfo0kgjmyRhLWcl/view?usp=sharing>