



# NUTRITION ASSISTANT APPLICATION IBM PROJECT REPORT TEAM ID (PNT2022TMID46515)

## Submitted by

HARIVEERAN K (820619104016)

GNANAVEL S (820619104014)

RAKKESH R (820619104047)

SRIVARSEN R (820619104057)

In partial fulfilled for the award of the degree

of

#### **BACHELOR OF ENGINEERING**

IN

**COMPUTER SCIENCE & ENGINEERING** 

ARASU ENGINEERING COLLEGE, KUMBAKONAM
ANNA UNIVERSITY: CHENNAI 600025
2022

#### **ABSTRACT**

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 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.

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.

CHAPTER NO	TITTLE	PAGE NO
	ABSTRACT	3
1	INTRODUCTION	
1.1	Project overview	5
1.2	Purpose	
2	LITERATURE	
	SURVEY	
2.1	Existing problem	6
2.2	References	6
2.3	Problem statement	7
	Definition	
3	IDEATION	
	&PROPOSED	
	SOLUTION	
3.1	Empathy map canvas	8
3.2	Ideation &brain storming	10
3.3	Proposed solution	12
3.4	Problem statement fit	13
4	REQUIREMENT	
	ANALYSIS	
4.1	Functional requirement	15
4.2	Non-functional	15
	Requirement	
5	PROJECT DESIGN	
5.1	Data flow diagrams	16
5.2	Solution & technical	16
	Architecture	
5.3	User stories	17
6	PROJECT PLANNING	
	& SCHEDULING	
6.1	Sprint planning	17
	&estimation	
6.2	Sprint delivery schedule	17
6.3	Report from jira	18
7	CODING &SOLUTION	

7.1	Feature 1	19
7.2	Feature 2	46
8	TESTING	
8.1	Test cases	69
8.2	User acceptance testing	70
9	RESULT	
9.1	Performance metrics	71
10	ADVANTAGE	73
	&DISADVANTAGE	
11	CONCLUSION	74
12	FUTURE SCOPE	74
13	APPENDIX	75
13.1	Source code	79
13.2	Git hub & project demo	79
	Link	

#### INTRODUCTION

## PROJECT OVERVIEW

- ➤ User interacts with the Web App to Load an image.
- ➤ The image is passed to the server application, which uses Clarifai's AI-Driven Food Detection Model Service to analyze the images and Nutrition API to provide nutritional information about the analyzed Image.
- ➤ Nutritional information of the analyzed image is returned to the app for display.

#### **PURPOSE**

Lose weight with a personal diet plan to build immunity & achieve health and fitness goals creates a diet chart and meal planner from your health data and BMI so you know exactly how to go about your diet and workout.

Eat healthy with your nutrition and calorie calculator! Log meals with a touch, check your macros, or simply take a photo of your lunch. Access the largest database of Indian foods including international cuisines & healthy recipes, from dal to dosa, with Indian serving sizes.

#### 2. LITERATURE SURVEY

### **Existing problem**

- The application was structured in two scenes that assign a logical division of the application. The first of these is Sample Scene which contains all the sections in the application, such a recording/logging, reports, recording daily consumption, etc., with which the user interacts. The augmented reality part AR option and offers all the functionalities to scan the barcode.
- The next page in the application that you are going to interact within the application is the one that contains the main menu. After the connection is successful, the user is shown this page where they can choose what they want to do next. There are six potential actions: recording consumed foods (Calories button), consulting the information section (Info Point button), scanning the food barcode (Food but-ton), consulting recipe recommendations (Recipes button), consulting reports on personal evolution (Reports button) and entry in the profile section.

#### **RFFERENCES**

Paper 1: Agricultural Production System Using IoT as Inclusive Technology

Publication year: December - January 2016

Author name: CHANDHINI. K. Bangalore, Karnataka.

Paper 2: An Approach Based on Fog Computing for Providing

Reliability in IoT Data Collection: A Case Study in a Colombian Coffee Smart Farm

**Publication year**: 14 December 2020

**Author name: Ana Isabel Montoya-**Munoz

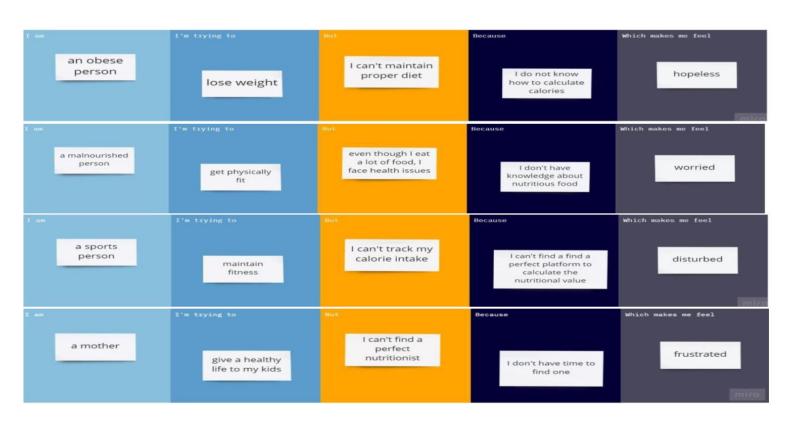
Paper 3: A Low-Cost Platform for Environmental Smart Farming Monitoring System Based on IoT

Published year: 24 May 2021

Author name: Ben Othman Soufiene, Faris A. Almalki

#### PROBLEM STATEMENT DEFINITION:

- A nutritional problem or deficiency refers to a condition when an individuals body experiences a shortage of essential nutrients or some specific nutrient. Such problems can give rise to several health issues such as anaemia.
- ➤ The human body needs nourishment in a balanced manner to carry out all its biological processes optimally. The micro and micronutrients which one needs are not synthesised naturally inside the human body. The nutritional problems in India mainly arise when there is a lack of essential nutrients within the human body.
- ➤ If you are worried about the common nutritional problems. Fret not. Keep reading to know all you need.



#### 3.IDEATION & PROPOSED SOLUTION

#### **EMPATHY MAP CANVAS:**

#### THINK AND FEEL:

- Organic food is better quality.
- > Wants to diversity her diet.
- > Farmers should be paid fairly.
- ➤ About health and we being.

#### **HEAR**:

- > Nutrition influencers online.
- > Nutrition advice.
- > Podcasts about health.
- ➤ UK farmers are not making enough money.

#### **SAY AND DO:**

- > Buys from ethical companies.
- ➤ Shops at formers markets.
- > Cooks at home 3 times per week.
- ➤ Always takes reusable bag to the supermarket.

#### SEE:

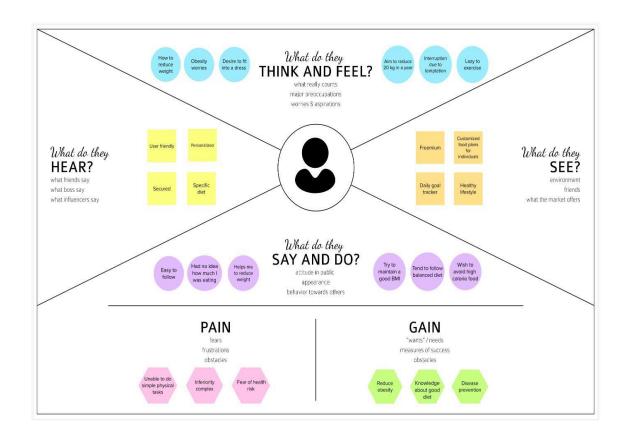
- > Ad for farm drop on the tube.
- > TV show about food waste.
- ➤ Documentary about animal in the food industry.
- Ad for 1000 boxes.

#### PAIN:

- Low level health issues.
- > Organic is expensive.
- ➤ Has to wait for veg box to be delivered.
- > Super markets import fruit and veg.

# **GAIN**:

- ➤ Lives by values.
- > Saving time.
- ➤ Has more energy.
- > Eating more health consciously.



#### **IDEATION & BRAINSTORMING:**

#### **IDEAS 1:**

- Make a server to be active at anytime.
- > Provide a image of food.
- Add extra features of settings that should be useful for a app user.

#### **IDEAS 2:**

- ➤ Provide a option to get extra details about a user about its health conditions.
- > Provide a course for what are the food we should use and avoid.
- Make a worthful add to reach a customer.

#### **IDEAS 3:**

- ➤ Make available all kind of food for different users like some of users are heart patient, affected by any health issues.....
- ➤ Make track of user by adding his experience.

#### **IDEAS 4:**

- Take care of customers health to provide a proper nutrition foods.
- ➤ Webpage will be loaded fast.
- Make a search engine with sound and text with different languages.

#### **GROUP IDEAS:**

- > To provide easy features on a home page.
- ➤ Makes the home page comfortable to app users.
- > Contact with user and doctor.
- ➤ Avoid any issues occurred in data base.
- ➤ Add a calory tracker by thump impression.
- ➤ Make a notifications to be on at any time.
- Make chart of nutritious food.

# **PROPOSED SOLUTION:**

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Problem:  Desity 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 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.
		Solution:  Choosing healthier foods (whole grains, fruits and vegetables, healthy fats and protein sources) and beverages.  Limiting unhealthy foods (refined grains and sweets, potatoes, red meat, processed meat) and beverages (sugary drinks) Increasing physical activity.  Limiting television time, screen time, and other "sit time"
2.	Idea / Solution description	Idea:  Make available all kind of food for different users like some of user are heart patient, affected by any health issues.
3.	Novelty / Uniqueness	Uniqueness:  > Uncontrolled sugar consumption is one of the main causes of obesity and diabetes. Since today more people are interested in calculating amounts of sugar and fat they consume you need to create a diet and nutrition app with a sugar and fat tracker. This tracker may go in connection with automatically-

		generated recommendations that fit individual cases.
4.	Social Impact / Customer Satisfaction	Social impact:  Kids who ate healthier diets showed more friendliness and social play than kids who didn't. If you are prone to social anxiety, limit caffeine, which can really fuel anxiety symptoms and alcohol, which can also interfere.
5.	Business Model (Revenue Model)	<ul><li>Nutrition assistant application</li><li>Website</li></ul>
6.	Scalability of the Solution	<ul> <li>Healthy nutrition contributes to preventing non-related diseases.</li> <li>Knowledge about the effects of the long term provision of health-aware recommanendations in real-life situation is limited.</li> </ul>

#### **PROBLEM SOLUTION FIT:**

Project tile: Nutrition assistant application Project Design Phase - I - Problem Solution Fit Team ID: PNT2022TMID46515 1. CUSTOMER SEGMENT(S) 6. CUSTOMER LIMITATIONS EG. BUDGET, DEVICES 5. AVAILABLE SOLUTIONS PROS & CONS Make use of online resources to collect Obese people Fixed Schedules and Fancy Gym Memberships nutritional information about individual Malnourished person Insufficiency of Professional Training ingredients Fitness fanatic · Pros: Eliminate excess calorie intake Dietician consultation is costly Cons: Time consuming and inaccurate 2. PROBLEMS / PAINS + ITS FREQUENCY 9. PROBLEM ROOT / CAUSE 7. BEHAVIOR + ITS INTENSITY Directly related: Altering proportions of Rate of increasing obesity Consumption of high calorie foods. certain food groups by searching for low Malnutrition Poor quality of diet plan fat diet plans, low carbohydrate diet Inferiority complex about Not maintaining correct BMI plans appearance Health risks are mainly caused due Increasing health risks like diabetes, to insufficient knowledge about Indirectly related: Adequate water high/low blood pressure, cardiac nutrition. consumption, medical surgeries arrest TR SL СН 10. YOUR SOLUTION 8. CHANNELS of BEHAVIOR 3. TRIGGERS TO ACT ONLINE Envious about healthy neighbours A web application that automatically The customer will search directly for the Need for accurate results estimates food attributes such as nutritional information Body shaming ingredients and nutritional value by EM classifying the input image of the meal OFFLINE 4. EMOTIONS BEFORE / AFTER provided, so that the user will know about They tend to consult dietician, or No adequate knowledge about healthy the nutritional information of the meal nutritionist or can gain information from foods > Gain knowledge about healthy diet which they consume. the community.

# 3. REQUIREMENT ANALYSIS

#### **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 email and phone number
FR-2	User Confirmation	Confirmation via Email
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

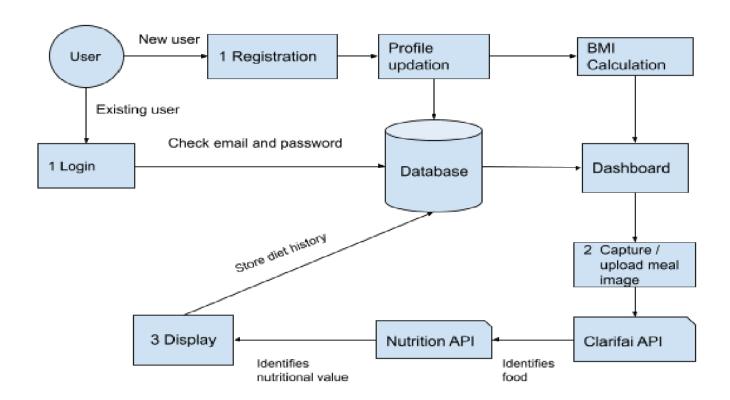
#### Non-functional Requirements:

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 second 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.

## 4. PROJECT DESIGN

## **DATA FLOW DIAGRAMS:**



# **SOLUTION & TECHNICAL ARCHITECTURE:**

#### Technical Architecture:



# **USER STORIES:**

# **User Stories**

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer	Registration	USN-1	As a user, I can register for the application by entering my name, age, gender, 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
	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	Sprint-1
	Login	USN-4	As a user, I can log into the application by entering email & password	I can access my account / dashboard	High	Sprint-1
	Dashboard	USN-5	As a user, I can upload or capture live image of the meal	I can get nutritional value of that particular meal	High	Sprint-2
		USN-6	As a user, I can track my daily calorie intake	I can access my account / dashboard	Medium	Sprint-2
Administrator	Maintain the applications	USN-7	Maintaining details for users	I can access database	High	Sprint-3

# **5.PROJECT PLANNING & SCHEDULING**

# project planning &scheduling

_	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint- 1	User login	USN-1	As a developer I have to collect the different type of data possible and other data supportingthe model user can register for the application by entering my email, password, and confirming my password. I will receive confirmation email onecle have registered for the application  I can register for the application through Gmail.	20	_	Hariveeran, Rakkesh

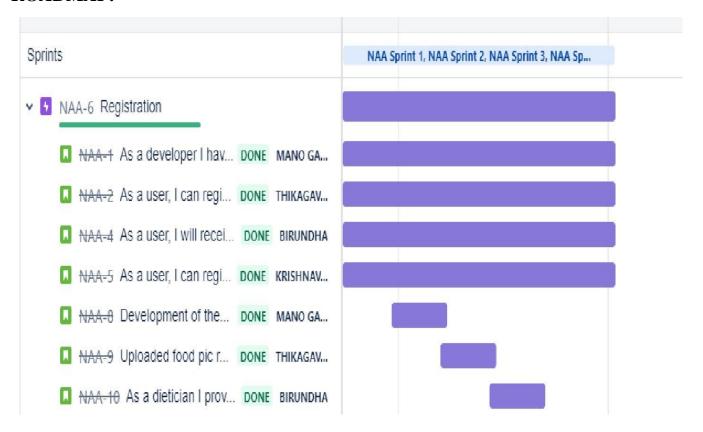
Sprint-2	Model building	USN-2	Development of the model with the prepared data As a user can view my calories by uploading the photo of the food that I want to eat.	20	_	Srivarsen, Gnanavel
Sprint-3	User image analysis	USN-3	Uploaded food pic result will show in app page and its tell less and high nutrition detailsAs a user can track my calories intake and know about myfood in detail.	20	Ü	Hariveeran, Gnanavel
Sprint- 4	Diet plan for free users	USN-4	As a dietician I provide a diet plan for the betterment of the user and As a user now I can make recommendations such as nutritionplans, diet plans etc	20	Ü	Rakkesh, Srivarsen

# SPRINT DELEVERY SCHEDULE

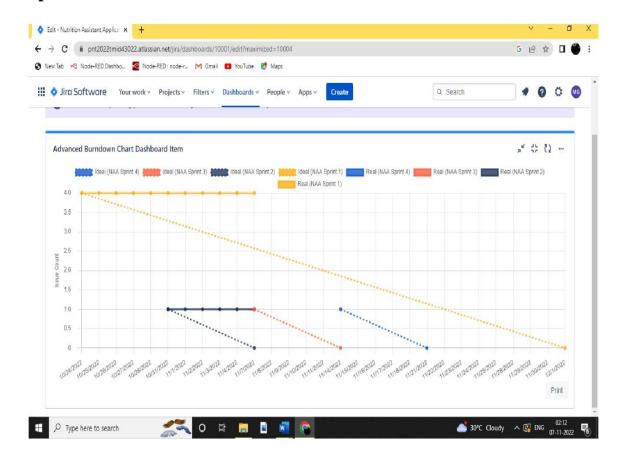
Sprint	Total Story Point	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	07\11\2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	10\11\2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	14\11\2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	18\11\2022

## **REPORTS FROM JIRA:**

## **ROADMAP:**



# Graph:



## 6. Coding & Solutioning

#### Feature 1:

## **Registration & login page 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-</pre>
              scale=1.0">
             <link rel="stylesheet" href="index.css">
             <!--<title>Login & Registration Form</title>-->
              </head>
              <body>
              <h1 style="color:white">Nutrition Assistent Application</h1>
              <div class="container">
             <div class="forms">
              <div class="form login">
             <span class="title">Login</span>
              <form action="#">
                          <div class="input-field">
                            <input type="text" placeholder="Enter your email"</pre>
              required>
                            <i class="uil uil-envelope icon"></i>
                          </div>
                          <div class="input-field">
                            <input type="password" class="password"</pre>
             placeholder="Enter your password" required>
```

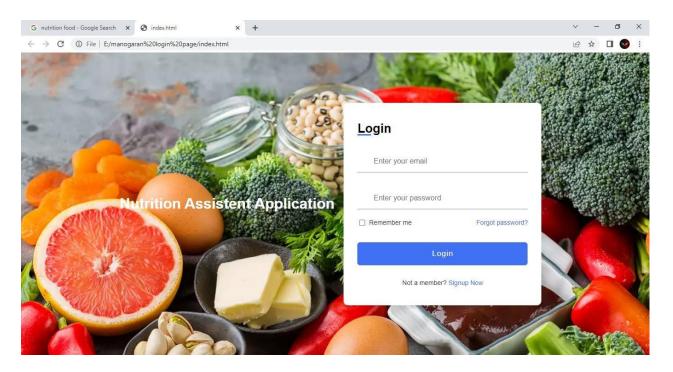
```
<i class="uil uil-lock icon"></i>
              <i class="uil uil-eye-slash showHidePw"></i>
            </div>
            <div class="checkbox-text">
              <div class="checkbox-content">
                <input type="checkbox" id="logCheck">
                <label for="logCheck" class="text">Remember
me</label>
              </div>
              <a href="#" class="text">Forgot password?</a>
            </div>
            <div class="input-field button">
              <input type="button" value="Login">
            </div>
         </form>
         <div class="login-signup">
            <span class="text">Not a member?
              <a href="#" class="text signup-link">Signup
Now</a>
            </span>
         </div>
       </div>
       <script src="index.js"></script>
       <!-- Registration Form -->
       <div class="form signup">
         <span class="title">Registration</span>
         <form action="#">
            <div class="input-field">
              <input type="text" placeholder="Enter your name"</pre>
required>
```

```
<i class="uil uil-user"></i>
            </div>
            <div class="input-field">
              <input type="text" placeholder="Enter your email"</pre>
required>
               <i class="uil uil-envelope icon"></i>
            </div>
            <div class="input-field">
              <input type="password" class="password"</pre>
placeholder="Create a password" required>
              <i class="uil uil-lock icon"></i>
            </div>
            <div class="input-field">
              <input type="password" class="password"</pre>
placeholder="Confirm a password" required>
              <i class="uil uil-lock icon"></i>
              <i class="uil uil-eye-slash showHidePw"></i>
            </div>
            <div class="checkbox-text">
              <div class="checkbox-content">
                 <input type="checkbox" id="termCon">
                 <label for="termCon" class="text">I accepted
all terms and conditions</label>
              </div>
            </div>
            <div class="input-field button">
              <input type="button" value="Signup">
            </div>
         </form>
         <div class="login-signup">
            <span class="text">Already a member?
              <a href="#" class="text login-link">Login
Now < /a >
```

```
</span>
</div>
</div>
</div>
</div>

<!--<script src="index.js"></script>-->
</body>
</html>
```

# **Login page Solution:**



# Picture upload page HTML:

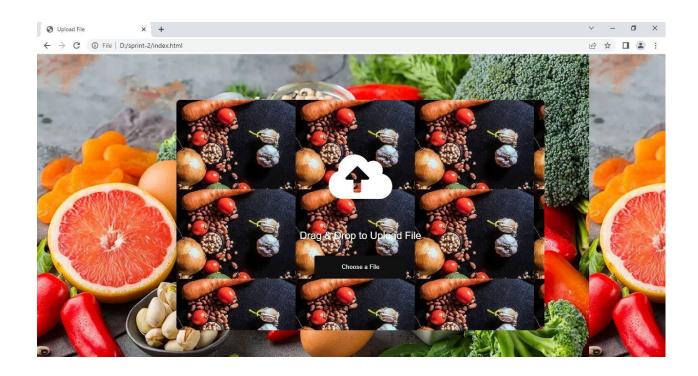
```
<!DOCT
YPE
html>
            <html lang="en">
            <head>
              <meta charset="UTF-8">
              <meta http-equiv="X-UA-Compatible" content="IE=edge">
              <meta name="viewport" content="width=device-width, initial-</pre>
            scale=1.0">
              k rel="stylesheet"
            href="https://use.fontawesome.com/releases/v5.15.3/css/all.css"
            integrity="sha384-
            SZXxX4whJ79/gErwcOYf+zWLeJdY/qpuqC4cAa9rOGUstPomtq
            puNWT9wdPEn2fk" crossorigin="anonymous">
              <link rel="stylesheet" href="css/style.css">
              <title>Upload File</title>
            </head>
            <body>
              <div class="container">
                 <input type="file" class="upload_hide" id="upload_costum"</pre>
            multiple>
                 <label for="upload_costum" class="upload_label">
                   <div class="image">
                     <img src="" alt="">
                   </div>
                   <i class="fas fa-cloud-upload-alt"></i>
                   Drag & Drop to Upload File
                   <button class="choose file">Choose a File</button>
                 </label>
                 <button class="delete_file"> Delete File</button>
              </div>
              <script src="https://code.jquery.com/jquery-3.6.0.js"</pre>
            integrity="sha256-
            H+K7U5CnXl1h5ywQfKtSj8PCmoN9aaq30gDh27Xc0jk="
            crossorigin="anonymous"></script>
              <script>
```

```
$('.delete_file').hide();
$('#upload_costum').change(function(event) {
    let tmppath = URL.createObjectURL(event.target.files[0])
    $('.image > img').fadeIn('fast').attr('src',tmppath)
    $('.delete_file').show();
    $('.choose_file').hide();

$('.delete_file').click(function() {
        $('.image > img').fadeIn('fast').attr('src',")
        $('.delete_file').hide();

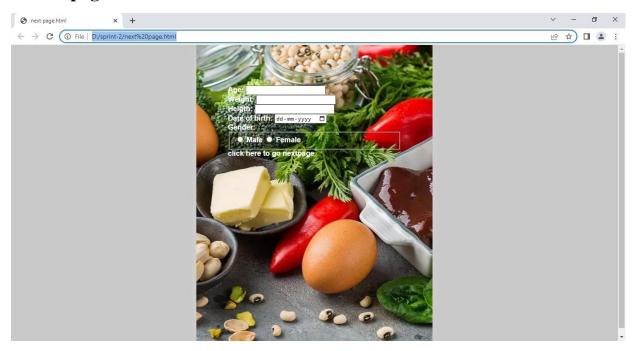
})
})
</body>
```

# Picture upload page solution:



## **Details page HTML:**

# **Details page solution:**



## **Registration & login page CSS:**

```
*{
         margin: 0;
         padding: 0;
         box-sizing: border-box;
         font-family: 'Poppins', sans-serif;
      }
      body{
         height: 100vh;
         display: flex;
         align-items: center;
         justify-content: center;
         background-image:url(https://static.toiimg.com/photo/74963413.cms);
         background-size: cover;
         background-attachment:fixed;
      }
      .container{
         position: relative;
         max-width: 430px;
         width: 100%;
         background:white;
         border-radius: 10px;
         box-shadow: 0 5px 10px rgba(0, 0, 0, 0.1);
         overflow: hidden;
         margin: 0 20px;
      }
      .container .forms{
         display: flex;
         align-items: center;
         height: 440px;
         width: 200%;
```

```
transition: height 0.2s ease;
.container .form{
  width: 50%;
  padding: 30px;
  background-color: transparent;
  transition: margin-left 0.18s ease;
.container.active .login{
  margin-left: -50%;
  opacity: 0;
  transition: margin-left 0.18s ease, opacity 0.15s ease;
}
.container .signup{
  opacity: 0;
  transition: opacity 0.09s ease;
}
.container.active .signup{
  opacity: 1;
  transition: opacity 0.2s ease;
}
.container.active .forms{
  height: 600px;
}
.container .form .title{
  position: relative;
  font-size: 27px;
  font-weight: 600;
```

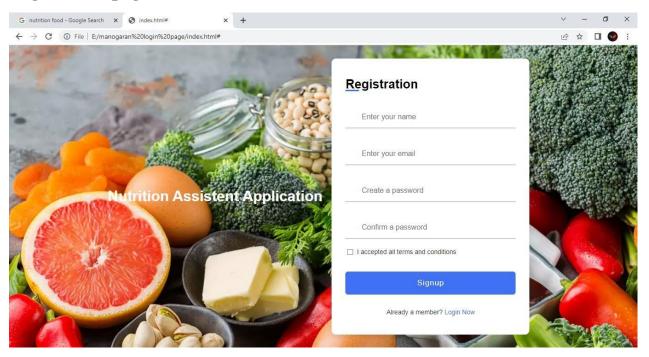
```
.form .title::before{
  content: ";
  position: absolute;
  left: 0;
  bottom: 0;
  height: 3px;
  width: 30px;
  background-color: #4070f4;
  border-radius: 25px;
.form .input-field{
  position: relative;
  height: 50px;
  width: 100%;
  margin-top: 30px;
.input-field input{
  position: absolute;
  height: 100%;
  width: 100%;
  padding: 0 35px;
  border: none;
  outline: none;
  font-size: 16px;
  border-bottom: 2px solid #ccc;
  border-top: 2px solid transparent;
  transition: all 0.2s ease;
}
.input-field input:is(:focus, :valid){
  border-bottom-color: #4070f4;
}
```

```
.input-field i{
  position: absolute;
  top: 50%;
  transform: translateY(-50%);
  color: #999;
  font-size: 23px;
  transition: all 0.2s ease;
}
.input-field input:is(:focus, :valid) ~ i{
  color: #4070f4;
}
.input-field i.icon{
  left: 0;
.input-field i.showHidePw{
  right: 0;
  cursor: pointer;
  padding: 10px;
}
.form .checkbox-text{
  display: flex;
  align-items: center;
  justify-content: space-between;
  margin-top: 20px;
}
.checkbox-text .checkbox-content{
  display: flex;
  align-items: center;
.checkbox-content input{
```

```
margin: 0 8px -2px 4px;
  accent-color: #4070f4;
.form .text{
  color: #333;
  font-size: 14px;
}
.form a.text{
  color: #4070f4;
  text-decoration: none;
}
.form a:hover{
  text-decoration: underline;
.form .button{
  margin-top: 35px;
.form .button input{
  border: none;
  color: #fff;
  font-size: 17px;
  font-weight: 500;
  letter-spacing: 1px;
  border-radius: 6px;
  background-color: #4070f4;
  cursor: pointer;
  transition: all 0.3s ease;
}
.button input:hover{
  background-color: #265df2;
```

```
.form .login-signup{
   margin-top: 30px;
   text-align: center;
}
```

# **Registration page solution:**



# Picture upload page CSS:

```
*{
    margin: 0;
    padding: 0;
    box-sizing: border-box;
    font-family: 'Poppins', sans-serif;
}

body{
```

```
height: 100vh;
  display: flex;
  align-items: center;
  justify-content: center;
  background-image:url(https://static.toiimg.com/photo/74963413.cms);
  background-size: cover;
  background-attachment:fixed;
}
.container{
  position: relative;
  max-width: 430px;
  width: 100%;
  background:white;
  border-radius: 10px;
  box-shadow: 0 5px 10px rgba(0, 0, 0, 0.1);
  overflow: hidden;
  margin: 0 20px;
.container .forms{
  display: flex;
  align-items: center;
  height: 440px;
  width: 200%;
  transition: height 0.2s ease;
}
.container .form{
  width: 50%;
  padding: 30px;
  background-color: transparent;
  transition: margin-left 0.18s ease;
}
```

```
.container.active .login{
  margin-left: -50%;
  opacity: 0;
  transition: margin-left 0.18s ease, opacity 0.15s ease;
.container .signup{
  opacity: 0;
  transition: opacity 0.09s ease;
.container.active .signup{
  opacity: 1;
  transition: opacity 0.2s ease;
}
.container.active .forms{
  height: 600px;
}
.container .form .title{
  position: relative;
  font-size: 27px;
  font-weight: 600;
}
.form .title::before{
  content: ";
  position: absolute;
  left: 0;
  bottom: 0;
  height: 3px;
  width: 30px;
  background-color: #4070f4;
  border-radius: 25px;
}
```

```
.form .input-field{
  position: relative;
  height: 50px;
  width: 100%;
  margin-top: 30px;
.input-field input{
  position: absolute;
  height: 100%;
  width: 100%;
  padding: 0 35px;
  border: none;
  outline: none;
  font-size: 16px;
  border-bottom: 2px solid #ccc;
  border-top: 2px solid transparent;
  transition: all 0.2s ease;
.input-field input:is(:focus, :valid){
  border-bottom-color: #4070f4;
}
.input-field i{
  position: absolute;
  top: 50%;
  transform: translateY(-50%);
  color: #999;
  font-size: 23px;
  transition: all 0.2s ease;
}
.input-field input:is(:focus, :valid) ~ i{
  color: #4070f4;
}
```

```
.input-field i.icon{
  left: 0;
.input-field i.showHidePw{
  right: 0;
  cursor: pointer;
  padding: 10px;
.form .checkbox-text{
  display: flex;
  align-items: center;
  justify-content: space-between;
  margin-top: 20px;
}
.checkbox-text .checkbox-content{
  display: flex;
  align-items: center;
}
.checkbox-content input{
  margin: 0 8px -2px 4px;
  accent-color: #4070f4;
}
.form .text{
  color: #333;
  font-size: 14px;
.form a.text{
  color: #4070f4;
```

```
text-decoration: none;
}
.form a:hover{
  text-decoration: underline;
}
.form .button{
  margin-top: 35px;
}
.form .button input{
  border: none;
  color: #fff;
  font-size: 17px;
  font-weight: 500;
  letter-spacing: 1px;
  border-radius: 6px;
  background-color: #4070f4;
  cursor: pointer;
  transition: all 0.3s ease;
}
.button input:hover{
  background-color: #265df2;
.form .login-signup{
  margin-top: 30px;
  text-align: center;
}
```

## **Details page CSS:**

\* {

```
margin: 0;
  padding: 0;
  box-sizing: border-box;
body {
  font-family: sans-serif;
  background-image: url(https://static.toiimg.com/photo/74963413.cms);
}
.container {
  max-width: 1160px;
  margin: 0 auto;
}
.upload_hide {
  position: absolute;
  max-width: 840px;
  max-height: 540px;
  width: 100%;
  height: 100%;
  background-color: red;
  left: 50%;
  top: 50%;
  transform: translate(-50%, -50%);
  z-index: 5;
  opacity: 0;
.upload_label {
  position: absolute;
  max-width: 800px;
  max-height: 500px;
  width: 100%;
  height: 100%;
  margin: 20px !important;
```

```
background-image: url(https://encrypted-
tbn0.gstatic.com/images?q=tbn:ANd9GcS9jfZEL757HMCpcGyebkYhIgy
ukE48Stto-w&usqp=CAU);
  left: 50%;
  top: 50%;
  transform: translate(-50%, -50%);
  display: flex;
  justify-content: center;
  text-align: center;
  border-radius: 8px;
  flex-direction: column;
.choose_file {
  width: 200px;
  height: 50px;
  border: none;
  background-color: #111111;
  color: #fff;
  border-radius: 3px;
  margin: 30px auto;
  pointer-events: none;
}
.delete_file {
  width: 200px;
  height: 50px;
  border: none;
  background-color: #ffffff;
  color: #fff;
  border-radius: 3px;
  margin: 30px auto;
  cursor: pointer;
  z-index: 6;
  position: absolute;
  top: 62%;
  left: 51%;
  transform: translate(-50%, -50%);
```

```
outline: none;
.upload_label > i \{
  color: #ffffff;
  font-size: 110px;
  margin: 30px 0;
}
.drag_text {
  color: #ffffff;
  font-size: 22px;
  margin: 30px 0 0 0;
.image > img {
  padding: 40px;
  width: 80%;
  height: auto;
  position: absolute;
  left: 10%;
  top: 0;
```

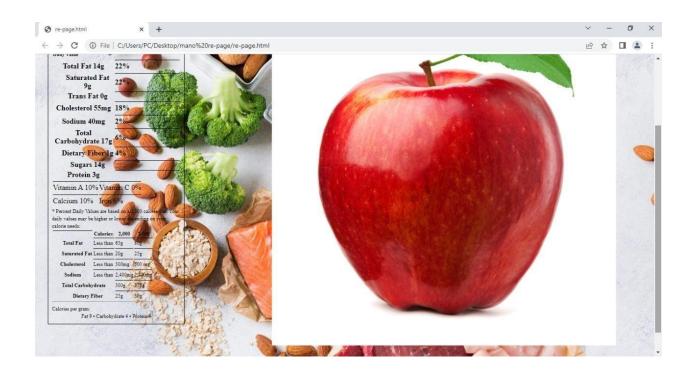
#### Feature 2: Result

#### page HTML:

```
<!DOCT
YPE
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-</pre>
            scale=1.0">
              k rel="stylesheet"
            href="https://use.fontawesome.com/releases/v5.15.3/css/all.css"
            integrity="sha384-
            SZXxX4whJ79/gErwcOYf+zWLeJdY/qpuqC4cAa9rOGUstPomtq
            puNWT9wdPEn2fk" crossorigin="anonymous">
              <link rel="stylesheet" href="css/style.css">
              <title>Upload File</title>
            </head>
            <body>
              <div class="container">
                 <input type="file" class="upload_hide" id="upload_costum"</pre>
            multiple>
                 <label for="upload_costum" class="upload_label">
                   <div class="image">
                     <img src=""> alt="">
                   </div>
                   <i class="fas fa-cloud-upload-alt"></i>
                   Drag & Drop to Upload File
                   <button class="choose_file">Choose a File</button>
                 </label>
                 <button class="delete_file"> Delete File</button>
              </div>
              <script src="https://code.jquery.com/jquery-3.6.0.js"</pre>
            integrity="sha256-
```

```
H+K7U5CnXl1h5ywQfKtSj8PCmoN9aaq30gDh27Xc0jk="
crossorigin="anonymous"></script>
  <script>
     $('.delete_file').hide();
     $('#upload_costum').change(function(event) {
       let tmppath = URL.createObjectURL(event.target.files[0])
       $('.image > img').fadeIn('fast').attr('src',tmppath)
       $('.delete_file').show();
       $('.choose_file').hide();
       $('.delete_file').click(function() {
          $('.image > img').fadeIn('fast').attr('src','')
        $('.delete_file').hide();
       })
     })
  </script>
<a href="re-page.html">click here upload the image</a>
</body>
</html>
```

## **Result page solution:**



## **Result page CSS:**

```
.image
            width: 750px;
            float: right;
            margin: 75px;
          body {
           font-size: small;
           line-height: 1.4;
            background-image: url(https://cdn1.sph.harvard.edu/wp-
         content/uploads/sites/30/2018/11/shutterstock_723278326-
         1200x882.jpg);
          p {
            margin: 0;
           }
          .performance-facts {
            border: 1px solid black;
            margin: 20px;
```

```
float: left;
  width: 280px;
  padding: 0.5rem;
  tables {
   border-collapse: collapse;
 .performance-facts__title {
  font-weight: bold;
  font-size: 2rem;
  margin: 0 0 0.25rem 0;
 .performance-facts_header {
  border-bottom: 10px solid black;
  padding: 0 0 0.25rem 0;
  margin: 0 0 0.5rem 0;
  p {
   margin: 0;
 .performance-facts_table {
  width: 100%;
}
   td {
    border: 0;
   font-weight: normal;
   text-align: left;
   padding: 0.25rem 0;
   border-top: 1px solid black;
   white-space: nowrap;
  .blank-cell {
   width: 1rem;
   border-top: 0;
```

```
}
            .small-info {
             font-size: 0.7rem;
            .performance-facts__table--small {
             border-bottom: 1px solid #999;
             margin: 0 0 0.5rem 0;
            .performance-facts__table--grid {
             margin: 0 0 0.5rem 0;
                 content: "•";
                 font-weight: bold;
                 margin: 0 0.25rem 0 0;
            .text-center {
             text-align: center;
            .thick-end {
             border-bottom: 10px solid black;
            .thin-end {
             border-bottom: 1px solid black;
Diet plan page HTML:
 class="container-
                        <div class="row" id="dca_app">
                     <link rel="stylesheet" href="css/sprint-4.css">
```

<div

fluid">

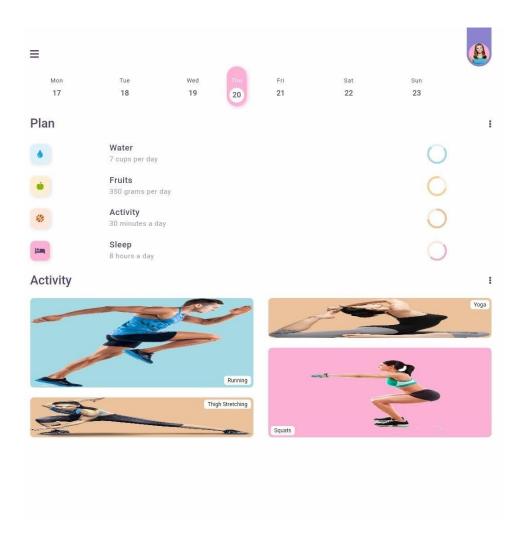
```
<section class="col-12" id="dca_header_bar">
      <div class="row">
         <div class="col-4">
          <i class="fa fa-bars"></i>
         </div>
        <div class="col-8 text-right">
           <img
src="https://i.postimg.cc/tRrRWdgf/profile.png" alt="">
         </div>
      </div>
    </section>
    <section class="col-12" id="dca_date_bar">
      <div>
         <span class="day">Mon</span>
             <span class="date">17</span>
           <span class="day">Tue</span>
             <span class="date">18</span>
           <
             <span class="day">Wed</span>
             <span class="date">19</span>
           <span class="day">Thu</span>
             <span class="date">20</span>
           \langle li \rangle
             <span class="day">Fri</span>
             <span class="date">21</span>
           \langle li \rangle
             <span class="day">Sat</span>
             <span class="date">22</span>
```

```
<1i>>
         <span class="day">Sun</span>
         <span class="date">23</span>
       </div>
</section>
<section class="col-12" id="dca_plan_tab">
  <div class="row heading">
    <div class="col-8">
       <span>Plan</span>
    </div>
    <div class="col-4 text-right">
       <i class="fa fa-ellipsis-v"></i>
    </div>
  </div>
  <div class="row content c1">
    <div class="col-2">
       <i class="fas fa-tint"></i>
    </div>
    <div class="col-8">
       <span>Water
       <span>7 cups per day</span>
    </div>
    <div class="col-2">
       <span class="circle"></span>
    </div>
  </div>
  <div class="row content c2">
    <div class="col-2">
       <i class="fa fa-apple-alt"></i>
    </div>
    <div class="col-8">
       <span>Fruits</span>
       <span>350 grams per day</span>
    </div>
    <div class="col-2">
```

```
<span class="circle"></span>
    </div>
  </div>
  <div class="row content c3">
    <div class="col-2">
       <i class="fa fa-basketball-ball"></i>
    </div>
    <div class="col-8">
       <span>Activity</span>
       <span>30 minutes a day</span>
    </div>
    <div class="col-2">
       <span class="circle"></span>
    </div>
  </div>
  <div class="row content c4">
    <div class="col-2">
       <i class="fa fa-bed"></i>
    </div>
    <div class="col-8">
       <span>Sleep</span>
       <span>8 hours a day</span>
    </div>
    <div class="col-2">
       <span class="circle"></span>
    </div>
  </div>
</section>
<section class="col-12" id="dca_activity_tab">
  <div class="row heading">
     <div class="col-8">
       <span>Activity</span>
    </div>
    <div class="col-4 text-right">
       <i class="fa fa-ellipsis-v"></i>
    </div>
  </div>
```

```
<div class="row">
         <div class="col-6">
            <div class="run activities">
src="https://i.postimg.cc/mZqYVHXX/running.png"
alt="">
              <span>Running</span>
            </div>
            <div class="stretch activities">
              <img
src="https://i.postimg.cc/htGM5B8M/thigh-stretching.png"
alt="">
              <span>Thigh Stretching/span>
            </div>
         </div>
         <div class="col-6">
            <div class="yoga activities">
              <img
src="https://i.postimg.cc/nVvFw8Ty/yoga.png" alt="">
              <span>Yoga</span>
            </div>
            <div class="squat activities">
              <img
src="https://i.postimg.cc/T3BB613C/squats.png" alt="">
              <span>Squats</span>
            </div>
         </div>
       </div>
     </section>
  </div>
</div>
```

## Diet plan page solution:



# Diet plan page CSS:

```
#dca_app > section:not(#dca_header_bar){
      padding: 0px 15px 0;
}
/* Start of DCA Header Bar */
#dca_header_bar img{
      height: 50px;
      width: 50px;
      border-radius: 50%;
      background: #fcb0d4;
      border: 4px solid #8b83d0;
}
#dca_header_bar:before{
      position: absolute;
      display: block;
      content: ";
      height: 90px;
      width: 50px;
      background: #8b83d0;
      right: 15px;
      top: -40px;
      border-bottom-left-radius: 25px;
      border-bottom-right-radius: 25px;
}
#dca_header_bar i{
      line-height: 50px;
      font-size: 20px;
}
/* End of DCA Header Bar */
```

```
/* Start of DCA Date Bar */
#dca_date_bar ul{
      padding: 0;
}
#dca_date_bar ul li{
      list-style: none;
      float: left;
      text-align: center;
      width: calc(100%/7);
      padding-top: 20px;
}
#dca_date_bar ul li span{
      display: block;
}
#dca_date_bar ul li span.day{
  font-size: 12px;
      letter-spacing: 0.5px;
      margin-bottom: 2px;
}
#dca_date_bar ul li .date{
  font-size: 15px;
  font-weight: 500;
  margin-top: 5px;
}
#dca_date_bar .active{
      background: #fcb0d4;
      height: 80px;
      width: 40px;
```

```
border-radius: 20px;
      padding-top: 20px;
      box-shadow: 2px 2px 8px -1px rgba(225,128,192,0.6);
}
#dca_date_bar .active .day{
      color: #fff;
}
#dca_date_bar .active .date{
      background: #fefefe;
      height: 30px;
      width: 30px;
      border-radius: 50%;
      line-height: 30px;
      text-align: center;
      margin-left: 5px;
}
/* End of DCA Date Bar */
/* Start of DCA Plan Tab */
#dca_plan_tab .heading{
      margin-bottom: 15px;
}
#dca_plan_tab .heading span{
      font-size: 25px;
      font-weight: 500;
}
#dca_plan_tab .heading i{
```

```
font-size: 15px;
      line-height: 40px;
}
#dca_plan_tab .content{
      margin-bottom: 15px;
      height: 50px;
}
#dca_plan_tab .content i{
      position: absolute;
      background: #dff1fb;
      height: 40px;
      width: 40px;
      border-radius: 10px;
      text-align: center;
      line-height: 40px;
      bottom: 5px;
}
#dca_plan_tab .c1 i{
      background: #dff1fb;
      color: #1ca3ec;
      box-shadow: 2px 2px 8px -1px rgba(0,0,0,0.15);
}
#dca_plan_tab .c2 i{
      background: #feeed5;
      color: #8db600;
      box-shadow: 2px 2px 8px -1px rgba(0,0,0,0.15);
}
#dca_plan_tab .c3 i{
      background: #ffe7dc;
      /*background: #fbd3c0;*/
```

```
color: #CF5300;
      box-shadow: 2px 2px 8px -1px rgba(0,0,0,0.15);
}
#dca_plan_tab .c4 i{
      background: #fcb0d4;
      box-shadow: 2px 2px 8px -1px rgba(0,0,0,0.15);
}
#dca_plan_tab .content span{
      display: block;
}
#dca_plan_tab .content div.col-8 span:first-child{
      font-size: 17px;
      font-weight: 500;
      letter-spacing: 0.5px;
}
#dca_plan_tab .content div.col-8 span:last-child{
      font-size: 14px;
      font-weight: 400;
      color: rgba(85,71,107,0.6);
      letter-spacing: 0.5px;
}
#dca_plan_tab span.circle{
      position: absolute;
      height: 40px;
      width: 40px;
      border-radius: 50%;
      border: 5px solid #dff1fb;
      border-left-color: rgba(0,0,255,0.3);
      bottom: 5px;
}
```

```
#dca_plan_tab .c1 span.circle{
      border: 4px solid #a5d9e4;
      border-left-color: #dff1fb;
      transform: rotate(95deg);
}
#dca_plan_tab .c2 span.circle{
      border: 4px solid #f9d090;
      border-left-color: #feeed5;
      transform: rotate(150deg);
}
#dca_plan_tab .c3 span.circle{
      border: 4px solid #ecc29c;
      border-left-color: #ffe7dc;
      transform: rotate(40deg);
}
#dca_plan_tab .c4 span.circle{
      border: 4px solid #edb1cd;
      border-left-color: #ffe9de;
      border-top-color: #ffe9de;
      transform: rotate(2deg);
}
/* End of DCA Plan Tab */
/* Start of DCA Activity Tab */
#dca_activity_tab .heading{
      margin-bottom: 15px;
}
```

```
#dca_activity_tab .heading span{
      font-size: 25px;
      font-weight: 500;
}
#dca_activity_tab .heading i{
      font-size: 15px;
      line-height: 40px;
}
#dca_activity_tab img{
      height: 150px;
      width: 100%;
      border-radius: 8px;
}
.activities span{
      position: absolute;
      font-size: 11px;
      background: white;
      padding: 1px 7px;
      border-radius: 5px;
      color: #000;
      z-index: 1;
}
.run img{
      background: #a5d9e4;
      height: 180px !important;
}
.run span{
      right: 20px;
```

```
bottom: 105px;
}
.yoga img{
      height: 80px !important;
      background: #ecc29c;
      border-radius: 8px !important;
}
.yoga span{
      right: 19px;
      top: 4px;
}
.stretch img{
      margin-top: 20px;
      height: 80px !important;
      background: #ecc29c;
      border-radius: 8px !important;
}
.stretch span{
      right: 20px;
      bottom: 57px;
}
.squat img{
      background: #fcb0d4;
      height: 180px !important;
      margin-top: 20px;
}
.squat span{
      left: 20px;
```

```
bottom: 4px;
```

# 6.TESTING:

# **TESTING CASES**

Test cases	feature	Test	Pre request	Pre request Execute		Result
		scenario				
login	functional	Verify user	1. HTML	Enter the	Login should	pass
		details for	2. CSS	user id,	display in	_
		opening	3. JS	password for	the screen	
		home page		opening		
				home page		
Home page	Functional	Verify the	Integrate	The user can	It shows the	pass
		user details	with flask	enter URL	user	
		for opening		link in our	websites is	
		home page		home page	phishing	
		for the user		in shows the	website or	
		can enter		login	not	
		their URL		websites is		
		link		fake or not		

# **User Acceptance testing:**

task	Severity 1	Severity 1	Severity 1	Severity 1	Sub total
Login	10	4	5	5	13
Home page	2	0	2	0	17
Modul building	5	3	2	1	4
Executed the modul	15	5	5	10	3
Flask (app.py)	0	0	0	0	3
Flask (IBM app.py)	0	0	1	1	1
Deploy the model	0	5	2	1	2
Total	32	17	17	18	84

# **Test case analysis:**

Section	Total cases	Not tested	Fail	Pass
Login	10	0	0	10
Home page	40	0	0	40

# 7. Result:

# **Performance Metrics:**

s.no	Project	Scope/feature	Function	Hardware	Software	Load/volume	Risk-
	name		Changes	changes	changes	changes	score
1	LOGIN	New	Low	No	moderate	No changes	orange
	PAGE			changes			
2	IMAGE	New	High	No	no	low	green
	UPLOAD			changes			
	PAGE						
3	RESULT	New	Moderate	No	no	low	green
	PAGE			changes			

S.no	Project over view	NFT Test approach	Approvals/sign off
1	Login page	Using Python and	
		flask	
2	Image upload page	Using Python and	
		flask	
3	User web application	Using Python and	
		flask	

S.no	Project over view	NFT test approach	NFR- Met	Test outcome	Go / no - go decision	Identify defects	Approvals/signOff
1	Login page	Using python flask	No	Expectance met	Go	Identified/closed	
2	Image upload	Using python flask	Yes	Expectance partially met	No – go	Identified/ rectified	
3	Result page	Using python flask	No	Expectance partially met	Go	Identified/ rectified	

### 8. ADVANTAGES & DISADVANTAGES:

### **Advantages:**

➤ A well-balanced diet provides all of the: energy you need to keep active throughout the day. nutrients you need for growth and repair, helping you to stay strong and healthy and help to prevent diet-related illness, such as some cancers.

# **Dis-Advantages:**

- being overweight or obese
- > tooth decay
- high blood pressure
- ➤ high cholesterol
- ➤ heart disease and stroke

- > type-2 diabetes
- > osteoporosis
- > some cancers
- > depression
- > eating disorders.

#### **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. Left to their own devices, children will not automatically select healthy foods.
- Most countries in the region implement school health and nutrition programmes, including school feeding, deworming, vitamin and mineral supplementation, etc. Innovative, creative and effective school nutrition education programmes exist in some countries in the region. However, these are often small-scale and implemented as pilot projects, focus on children with special needs and prioritize the transfer of knowledge over the promotion of active learning and the creation of appropriate attitudes, life skills and behaviour. Generally, nutrition education is not systematically integrated into school curricula in the region.

#### 12. FUTURE SCOPE:

- The scope of this field is as follows: Graduates can work as a project assistant, project associate at an organization like PHFI, WHO, UNICEF, health organizations. Work as a chief nutritionist in NGO or private organizations. Work as a Regulatory affairs specialist.
- Nutrition is a good major for students who would like to become a part of the healthcare workforce after around four years of college and without necessarily providing direct patient care. An undergraduate degree in nutrition is also ideal for those who are planning on entering graduate or medical school.

#### 13. APPENDIX:

### Sample coding:

```
<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-</pre>
             scale=1.0">
             <link rel="stylesheet" href="index.css">
             <!--<title>Login & Registration Form</title>-->
             </head>
             <body>
             <h1 style="color:white">Nutrition Assistent Application</h1>
             <div class="container">
             <div class="forms">
             <div class="form login">
             <span class="title">Login</span>
```

```
<form action="#">
            <div class="input-field">
              <input type="text" placeholder="Enter your email"</pre>
required>
              <i class="uil uil-envelope icon"></i>
            </div>
            <div class="input-field">
              <input type="password" class="password"</pre>
placeholder="Enter your password" required>
              <i class="uil uil-lock icon"></i>
              <i class="uil uil-eye-slash showHidePw"></i>
            </div>
            <div class="checkbox-text">
              <div class="checkbox-content">
                 <input type="checkbox" id="logCheck">
                 <label for="logCheck" class="text">Remember
me</label>
              </div>
              <a href="#" class="text">Forgot password?</a>
            </div>
            <div class="input-field button">
              <input type="button" value="Login">
            </div>
         </form>
         <div class="login-signup">
            <span class="text">Not a member?
              <a href="#" class="text signup-link">Signup
Now < /a >
            </span>
         </div>
       </div>
```

```
<script src="index.js"></script>
       <!-- Registration Form -->
       <div class="form signup">
          <span class="title">Registration</span>
          <form action="#">
            <div class="input-field">
               <input type="text" placeholder="Enter your name"</pre>
required>
               <i class="uil uil-user"></i>
            </div>
            <div class="input-field">
               <input type="text" placeholder="Enter your email"</pre>
required>
               <i class="uil uil-envelope icon"></i>
            </div>
            <div class="input-field">
               <input type="password" class="password"</pre>
placeholder="Create a password" required>
               <i class="uil uil-lock icon"></i>
            </div>
            <div class="input-field">
               <input type="password" class="password"</pre>
placeholder="Confirm a password" required>
               <i class="uil uil-lock icon"></i>
               <i class="uil uil-eye-slash showHidePw"></i>
            </div>
            <div class="checkbox-text">
               <div class="checkbox-content">
                 <input type="checkbox" id="termCon">
                 <label for="termCon" class="text">I accepted
all terms and conditions</label>
               </div>
            </div>
```

```
<div class="input-field button">
              <input type="button" value="Signup">
           </div>
         </form>
         <div class="login-signup">
           <span class="text">Already a member?
              <a href="#" class="text login-link">Login
Now</a>
           </span>
         </div>
       </div>
    </div>
  </div>
  <!--<script src="index.js"></script>-->
</body>
</html>
```

### Github Link:

https://github.com/IBM-EPBL/IBM-Project-31246-1660198091