

REPORT DOCUMENT

PROJECT TITLE

NUTRITION ASSISTANT APPLICATION

Category:cloud app development

BY

SRI VENKATESWARAA COLLEGE OF TECHNOLOGY,SRIPERUMBUDUR,VADAKAL

DEPARTMENT OF

COMPUTER SCIENCE AND ENGINEERING

Team ID – PNT2022TEMID38272

Team Members,

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INTRODUCTION

1.1 Project Overview

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

Work Flow of the Project:

- 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.

Software Required:

Python, Flask , Docker

System Required:

8GB RAM,Intel Core i3,OS-Windows/Linux/MAC ,Laptop or Desktop

1.2 PURPOSE

- ✚ The app helps you set goals, monitor your weight trends,and track your intake based on the specific diet plan you select.
- ✚ The goals like desired weight goal,body type,food habits and preferred food items
- ✚ It also offers detailed nutrient information for each ingredients in your food log and a daily analysis to help keep you on track
- ✚ Nutrition apps are effective in changing eating behaviour and diet – related health risk factors
- ✚ This apps suggest them with a proper diet accordingly.



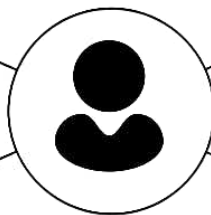
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What do they THINK AND FEEL?

what really counts
major preoccupation
worries & aspirations



What do they HEAR?

what friends say
what boss say
what influencers say

Protein is the food of life and health of the body. It is essential. It provides all nutrients for survival and helps the body function and stay healthy.

Increasing the throughput of a process usually requires changing hardware, software or human factors. Improvements can require changes in the way people work, which is why it is important to involve people in the design of the process. Improvements can also require changes in the way people work, which is why it is important to involve people in the design of the process.

Butter is the most important nutrient when trying to lose weight. Increasing your protein intake when trying to shed extra fat leads to increased metabolism, reduced appetite.

According to the manufacturer, Nutrena 6-0-0 which provides 6% N, sustains the feeding trial, and makes vegetation instead of just food.

According to a poem,
there is no perfect deal
for everyone and
therefore we're late one
very unhappy day.

Friends point of view
(nutrition assessment)
application gives a
healthy advice to
people who don't have
time instead of doctors
advice.

colours exhibited (red, blue, green, yellow, orange and purple) depending on the pH of the solution. The colour change of the indicator was observed at the end of the titration.

Just inside, unheating
flooded, packed, there are
surrounded there. It
gives hearts to people.

Market offers fresh fruits and vegetables to maintain the healthy body of the people.

What do they SEE?

environment
friends
what the market offers

What do they SAY AND DO?

attitude in public
appearance
behavior towards other

Food and nutrition are the way that we get fuel, providing energy for our bodies.

We need to replace nutrients in our bodies with a new supply everyday.

Create a new awareness to save organic foods, traditional food habits.

PAIN

fears
frustrations
obstacles

GAIN

- *wants* / needs
- measures of success
- obstacles

Share your feedback



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.

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** - 10 minutes
- **1 hour** - 1 hour
- **2-3 weeks** - 2-3 weeks

Abstract *Abstracts of the papers presented at the 1998 Annual Meeting of the American Psychological Association, Washington, DC, August 1-5, 1998.*

Open Access

- 1. Was getting:**
Sent an email to my colleagues in the various departments
about all the various other subjects you could contact
- 2. Got the go:**
I was about 10 minutes prior to heading on setting in
the engineering division
- 3. When how to use the facilities:**
After the first day, I was surprised to see that I was still
a member of the team

Open Access

Key rules of brainstorming:
To get an insight into a problem or solution

- No criticism
- No judgement
- Quantity over quality
- Build on others' ideas
- Encourage wild ideas
- Stay focused on the subject

PROBLEM
How might you illustrate a concept that is not explicitly stated in the text but is implied by the text?

ANSWER
William Cary, president of the FBI

Key rules of brainstorming:
To get an insight into a problem or solution

- No criticism
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- Build on others' ideas
- Encourage wild ideas
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Figure 1 displays eight 4x4 grids, labeled Scenario 0 through Scenario 7, illustrating the evolution of a 2D lattice of particles over time. Each grid contains black dots representing particles. The scenarios show a progression from a sparse initial state (Scenario 0) to a more complex, interconnected pattern (Scenario 7).

Figure 1 displays eight 4x4 grids, labeled Scenario 0 through Scenario 7, illustrating the evolution of a 2D lattice of particles over time. Each grid contains black dots representing particles. The scenarios show a progression from a sparse initial state (Scenario 0) to a more complex, interconnected pattern (Scenario 7).

Two-tier strategy
<ul style="list-style-type: none"> • 1st tier: 100% of the population • 2nd tier: 10% of the population
Three-tier strategy
<ul style="list-style-type: none"> • 1st tier: 100% of the population • 2nd tier: 10% of the population • 3rd tier: 1% of the population
Healthcare funding mechanisms
<ul style="list-style-type: none"> • 1st tier: 100% of the population • 2nd tier: 10% of the population • 3rd tier: 1% of the population

Two-tier strategy
<ul style="list-style-type: none"> • First tier – low level of support • Second tier – more intensive support
Three-tier strategy
<ul style="list-style-type: none"> • First tier – low level of support • Second tier – more intensive support • Third tier – intensive support
Universal screening methods
<ul style="list-style-type: none"> • Universal screening – screening all students • Targeted screening – screening students at risk

The graph illustrates the relationship between Importance (Y-axis) and Feasibility (X-axis) for various projects. The Y-axis is labeled 'Importance' and the X-axis is labeled 'Feasibility'. Two curves are plotted, representing different levels of importance or feasibility. Several projects are plotted as points with labels:

- New product development** (High Importance, High Feasibility)
- Market research** (High Importance, Low Feasibility)
- Customer feedback** (Medium Importance, Medium Feasibility)
- Product testing** (Medium Importance, High Feasibility)
- Marketing campaign** (Low Importance, High Feasibility)
- Sales promotion** (Low Importance, Low Feasibility)

Print page

Your team should all be on the same page about what's important during times to place your ideas on the grid to determine what ideas are important and which are feasible.

20 minutes



1. CUSTOMER SEGMENT(S) <ul style="list-style-type: none"> Obesity persons Unhealthy people 	6. CUSTOMER CONSTRAINTS <ul style="list-style-type: none"> Avoid sugar and oil and salty items Avoid junk foods Take fruits and vegetables 	5. AVAILABLE SOLUTIONS Take home made foods instead of restaurant food.
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2. JOBS-TO-BE-DONE / PROBLEMS Make a awareness among the people using apps or posters.	9. PROBLEM ROOT CAUSE Because of the change in the human lifestyle. E.g Food	7. BEHAVIOUR If we take a food we must know taken and takeout items in the foods and avoid the high calorie items.
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3. TRIGGERS Looking at awareness posters And affected persons.	10. YOUR SOLUTION People facing diseases and heavy pains like cyst, stomach pain, PCOD. It can be avoided by taking traCC	8.CHANNELS of BEHAVIOUR 8.1 ONLINE Using nutrition based apps, post awareness photos and videos on social media. 8.2 OFFLINE Conducting an awareness meeting.	
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4. EMOTIONS: BEFORE / AFTER Indigestion and obesity - used to maintain a healthy lifestyle.			
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Date	19 September 2022
Team ID	PNT2022TMID38272
Project Name	Project - Nutrition assistant application

Proposed Solution :

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Create a application to show weight loss instruction and healthy nutrition foods for obesity and unhealthy peoples.
2.	Idea / Solution description	If they open a app it will show a daily routine healthy foods in correct time. It will also shows the non fat foods.
3.	Novelty / Uniqueness	Web App that automatically estimates food attributes such as ingredients and nutritional value by classifying the input image of food.
4.	Social Impact / Customer Satisfaction	The app then creates a diet chart for a day, week, or a month according to the data filled.
5.	Business Model (Revenue Model)	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.
6.	Scalability of the Solution	It can be highly benefits for unhealthy persons.

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	03 October 2022
Team ID	PNT2022TMID38272
Project Name	Project - Nutrition Assistant Application

Functional Requirements:

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Login	Login with Username/Email Enter the Password
FR-4	Update Profile	Enter user's Name, Gender, Age Enter user's Weight
FR-5	Daily meal plan	Users must fill in data such as desired weight, diet, and food preferences. It shows a meal plan.
FR-6	Upload food image	Import image from Gallery Capture a food using Camera
FR-7	Results	This automatically estimates food ingredients and nutritional value by classifying the input image of food.
FR-8	Ratings and Reviews	Give the Points Provide a Feedback

Non-functional Requirements:

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Accessible through Internet
NFR-2	Security	It can be secured through user's Unique Password
NFR-3	Reliability	Related results User's Friendly
NFR-4	Performance	It can give results Fastly Clarifai's AI-Driven Food Detection Model is used
NFR-5	Availability	Available 24/7 Deep learning of the food image and predict the results with using the given dataset
NFR-6	Scalability	It can be accessed by multiple users at the same time

	<div> <div> <p>Overview</p> <p>Storyboard, timeline, storyboard, and using a social city tour</p> </div> <div> <p>Entice</p> <p>How does someone initially become aware of this product?</p> </div> <div> <p>Enter</p> <p>What do people experience as they begin the process?</p> </div> <div> <p>Engage</p> <p>What core moments in the process what happens?</p> </div> <div> <p>Exit</p> <p>What do people typically experience at the process finish?</p> </div> <div> <p>Extend</p> <p>What happens after the experience is done?</p> </div> </div>				
<div> <p>Stop</p> <p>What does the person or group typically experience?</p> </div>	<div> <div> <p>Stop</p> <p>What does the person or group typically experience?</p> </div> <div> <p>Stop</p> <p>What does the person or group typically experience?</p> </div> </div>	<div> <div> <p>Stop</p> <p>What does the person or group typically experience?</p> </div> <div> <p>Stop</p> <p>What does the person or group typically experience?</p> </div> </div>	<div> <div> <p>Stop</p> <p>What does the person or group typically experience?</p> </div> <div> <p>Stop</p> <p>What does the person or group typically experience?</p> </div> </div>	<div> <div> <p>Stop</p> <p>What does the person or group typically experience?</p> </div> <div> <p>Stop</p> <p>What does the person or group typically experience?</p> </div> </div>	<div> <div> <p>Stop</p> <p>What does the person or group typically experience?</p> </div> <div> <p>Stop</p> <p>What does the person or group typically experience?</p> </div> </div>
<div> <p>Interactions</p> <p>What interactions do they have at each step along the way?</p> <ul style="list-style-type: none"> People: Who do they see or talk to? Place: Where are they? Things: What digital touchpoints or physical items would they use? </div>	<div> <div> <p>Interactions</p> <p>What interactions do they have at each step along the way?</p> </div> <div> <p>Interactions</p> <p>What interactions do they have at each step along the way?</p> </div> </div>	<div> <div> <p>Interactions</p> <p>What interactions do they have at each step along the way?</p> </div> <div> <p>Interactions</p> <p>What interactions do they have at each step along the way?</p> </div> </div>	<div> <div> <p>Interactions</p> <p>What interactions do they have at each step along the way?</p> </div> <div> <p>Interactions</p> <p>What interactions do they have at each step along the way?</p> </div> </div>	<div> <div> <p>Interactions</p> <p>What interactions do they have at each step along the way?</p> </div> <div> <p>Interactions</p> <p>What interactions do they have at each step along the way?</p> </div> </div>	<div> <div> <p>Interactions</p> <p>What interactions do they have at each step along the way?</p> </div> <div> <p>Interactions</p> <p>What interactions do they have at each step along the way?</p> </div> </div>
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<div> <p>Areas of opportunity</p> <p>How might we make this better? What ideas do we have? What have others suggested?</p> </div>	<div> <div> <p>Areas of opportunity</p> <p>How might we make this better? What ideas do we have? What have others suggested?</p> </div> <div> <p>Areas of opportunity</p> <p>How might we make this better? What ideas do we have? What have others suggested?</p> </div> </div>	<div> <div> <p>Areas of opportunity</p> <p>How might we make this better? What ideas do we have? What have others suggested?</p> </div> <div> <p>Areas of opportunity</p> <p>How might we make this better? What ideas do we have? What have others suggested?</p> </div> </div>	<div> <div> <p>Areas of opportunity</p> <p>How might we make this better? What ideas do we have? What have others suggested?</p> </div> <div> <p>Areas of opportunity</p> <p>How might we make this better? What ideas do we have? What have others suggested?</p> </div> </div>	<div> <div> <p>Areas of opportunity</p> <p>How might we make this better? What ideas do we have? What have others suggested?</p> </div> <div> <p>Areas of opportunity</p> <p>How might we make this better? What ideas do we have? What have others suggested?</p> </div> </div>	<div> <div> <p>Areas of opportunity</p> <p>How might we make this better? What ideas do we have? What have others suggested?</p> </div> <div> <p>Areas of opportunity</p> <p>How might we make this better? What ideas do we have? What have others suggested?</p> </div> </div>

Project Design Phase-II
Data Flow Diagram & User Stories

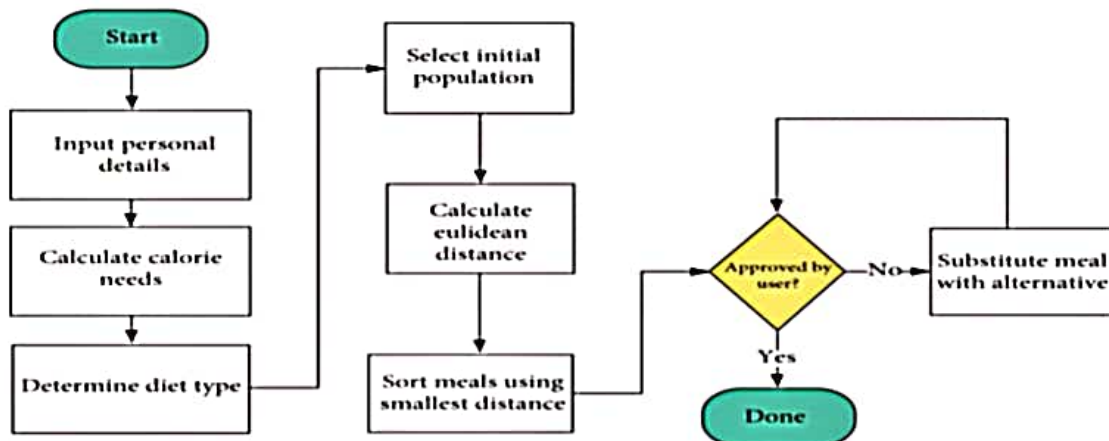
Date	03 October 2022
Team ID	PNT2022TMID38272
Project Name	Project - Nutrition Assistant Application

Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Example: [\(Simplified\)](#)

DFA (Data Flow Diagram)



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
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail		Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password		High	Sprint-1
	Dashboard	USN-6	User gets into the dashboard and see's the different web pages to compute what the user needs.		High	Sprint-1
Customer (Web user)	Registration	USN-7	As a user, I can register the form with username, Email-id and password.	I can register and able to access the account	Medium	Sprint-1

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer Care Executive	FAQ	USN-8	As a user you'll ask questions or doubts about the application to the admin side. As per protocols the user will get the response from the admin.		Medium	Sprint-3
Administrator	Register & Login page	USN-9	As a user, I can register the form with username, Email-id and password., I can log into the application by entering email & password		High	Sprint-1
	Register page	USN-10	If the user is new to the application admin here to ask the user to sign up first or to fill the register the form from the user to get the user details	If everything is acceptable the user will access the Dashboard	High	Sprint-1
	Login Page	USN-11	If the user is already registered the admin will get the data and user will login to application by entering email and password where the data are already stored in the database.	User get access to use the Dashboard	High	Sprint-1
	Database Process	USN-12				
	Add food data and user data to the database	USN-13	<p>(1) Admin will store the food nutrition value and calorific value of the primary taken foods and fast foods.</p> <p>(2) Admin will customise a code to store the user data to the database from the registration page.</p>			Sprint-2

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
	User interface	USN-14				
	Upload the food image and get the prediction	USN-15	Here the user will upload the picture from the files to the web page and upload the picture, to get to know about the nutrition value. Here the computation process is to predict the food image and to get the food values from the database.	If the picture is clear, I am able to predict and go to the next stage.	High	Sprint-3
	Get the calories and nutrition value from the food.	USN-16	Admin will compute the process over cloud to get the correct food nutrition value for the predicted image that value form user uploaded		High	Sprint-4

Date	19 September 2022
Team ID	PNT2022TMID38272
Project Name	Nutrition assistant application

Nutrition assistant application in cloud application development.

Architecture and design considerations:

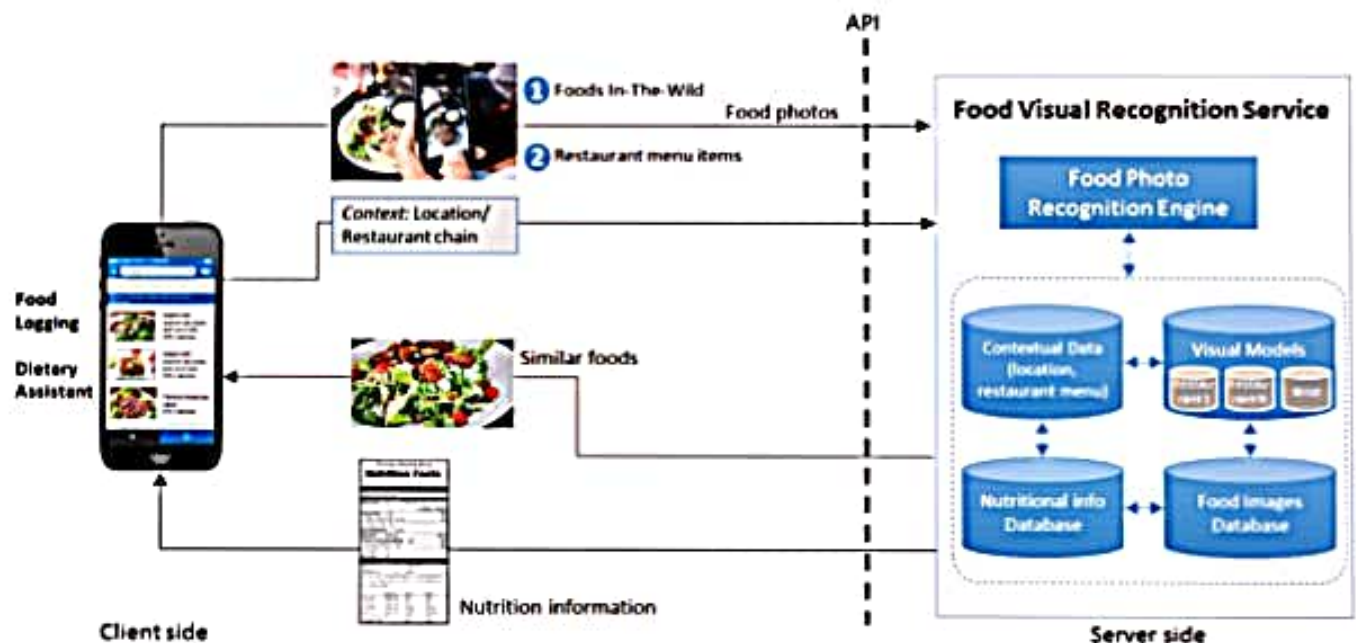
Due to the ignorance of healthy food habits, obesity rates are increasing at an alarming speed, and this is reflective of the risks to people's health. People need to control their daily calorie intake by eating healthier foods, which is the most basic method to avoid obesity. However, although food 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.

Work Flow of the architecture:

- 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.

Solution Architecture Diagram:



The advent of technology has made our generation sedentary. Due to the cost of app development technology, the amount of physical work has almost diminished which is the root cause of various problems.

As per [World Obesity](#) approximately 2.7 billion adults get obese and around 177 million adults will severely gets affected by 2025.

These stats show that we are living in the dark times and the agenda of Health & Fitness is in desperate need of a push. You can see this push in the form of an increasing number of Gyms and nutrition centers across the world.

Gyms have been a huge success. However, everybody doesn't have the time to join the gym. Moreover, some do join on New Year's Eve and then procrastinate for the rest of Year.

For such audiences, the diet & fitness app is a savior. They assist the users to follow a proper diet and to keep build Health and Fitness Apps a check on their calorie intake.

To take full advantage of the situation **mobile app development firms** have started to. Some apps are already doing well by helping app users at their best however, there are so many opportunities left for you to explore.

So, if you're an entrepreneur who is looking to **develop a health & fitness App**, then this article will provide you with a complete guide and professional's tips on how to do it.



With diet and nutrition analyzer apps, you can analyze your client's current goal of diet and provide them with effective feedback on what to improve.

It is possible to create personalized meal plans and healthy recipes and generate nutrient analysis reports by using barcodes and other relevant nutrition tracking tools compared to the users' nutritional requirements.

Embedding a Barcode Scanner would be a great feature for your app as it would assist your customers in shopping.



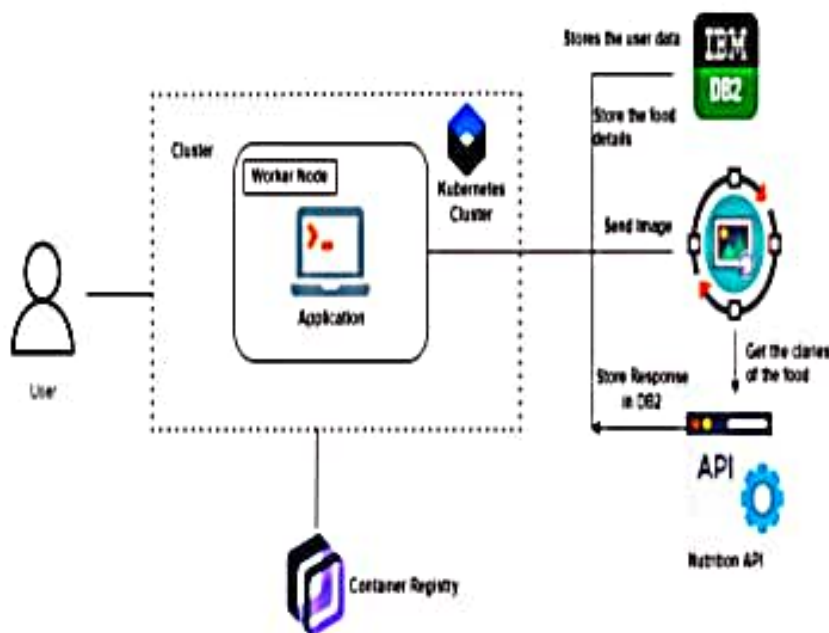
It would provide important data such as calories and ingredients of the items with the help of your phone.

Project Design Phase-II Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID38272
Project Name	Project - Nutrition assistant application

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



Guidelines:

- Include all the processes (As an application logic / Technology Block)
- Provide infrastructural demarcation (Local / Cloud)
- Indicate external interfaces (third party API's etc.)
- Indicate Data Storage components / services
- Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc
2.	Application Logic-1	Logic for a process in the application	Python
3.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
4.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant ,IBM Container Registry.
5.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
6.	External API-1	Purpose of External API used in the application	IBM Nutrition API, etc.
7.	Deep Learning Model	Purpose of Deep Learning Model	Clarfai's AI-Driven Food Detection Model
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python flask
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	SHA-256, Encryptions, IAM Controls.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	IBM cloud,IBM database
4.	Availability	Justify the availability of applications (e.g. use of load balancers, distributed servers etc.)	IBM cloud
5.	Performance Guests per sec, use of Cache, use of C	Design consideration for the performance of the application (number of reqDN's) etc.	IBM cloud

References:

<https://c4model.com/>

<https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/>

<https://www.ibm.com/cloud/architecture>

<https://aws.amazon.com/architecture>

<https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d>

Project Planning Phase

Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

Date	18 October 2022
Team ID	PNT2022TMID38272
Project Name	Project - Nutrition Assistant Application

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Use the below template to create product backlog and sprint schedule

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	Saranya R Deepika H Sharmila A Sneha S
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application	1	High	Saranya R Deepika H
Sprint-2		USN-3	As a user, I can register for the application through F Sneha S Sharmila A acebook	2	Low	Sneha S Sharmila A
Sprint-1		USN-4	As a user, I can register for the application through Gmail	2	Medium	Saranya R Sharmila A
Sprint-1	Login	USN-5	As a user, I can log into the application by entering email & password	1	High	Deepika H Sneha S
Sprint-1	Dashboard	USN-6	As a user I can access the dashboard able to see options to view contents chart, select diet plans, and exercise	5	High	Sneha S Saranya R
Sprint-2		USN-7	As a user I can see my profile	4	Medium	Deepika H Saranya R
Sprint-3		USN-8	As a user I can update my profile	3	Low	Sharmila A Sneha S
Sprint-2		USN-9	As a user I can change my password	4	Medium	Saranya R Deepika H Sharmila A

Sprint-1	Service Request	USN-10	As a user I can request to display nutrition content of food items	5	High	Sharmila A Saranya R Deepika H Sneha S
Sprint-2		USN-11	As a user I can request to suggest a diet plan according to my medical details	4	High	Deepika H Saranya R
Sprint-2		USN-12	As a user I can request to suggest exercise routines according to my medical details	4	Medium	Sneha S Sharmila A
Sprint-3	Notification	USN-13	track the status of diet targets through a dashboard or email services	3	Low	saranya.R, deepika.H, sharmila.A, sneha.S
Sprint-3		USN-14	As a user I get an email about revised exercise routines based on recent records.	3	Medium	Sneha S Sharmila A
Sprint-1		USN-15	A user noticed after successfully achieved the target workout	5	High	Saranya R Sharmila A
Sprint-3		USN-16	Upload Progress Reports	3	Low	Deepika H Sneha S
Sprint-4		USN-17	Making UI more interactive	2	Low	Sneha S Sharmila A
Sprint-2		USN-18	As a user I give feedback	4	High	Sharmila A Saranya R

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

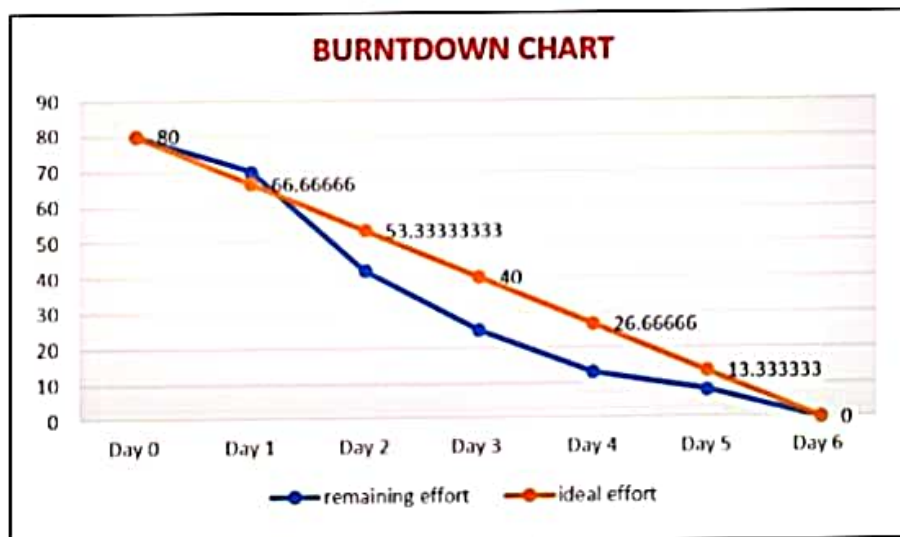
Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022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

$$AV = \frac{20}{6} = 4$$

Burndown Chart:

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

Sprint number	Day-0	Day-1	Day-2	Day-3	Day-4	Day-5	Day-6
Sprint-1	20	1	8	6	4	1	0
Sprint-2	20	4	8	2	3	2	1
Sprint-3	20	3	6	6	5	0	0
Sprint-4	20	4	8	4	4	2	2
remaining effort	80	68	42	24	8	3	0
ideal effort	80	66.666667	53.333333	40	26.666667	13.333333	0



Project Planning Phase
Milestone and Activity List

Date	08 November 2022
Team ID	PNT2022TMID02056
Project Name	Nutrition assistant Application

Milestone and Activity List:

TITLE		DESCRIPTION	DATE
IDEATION PHASE	LITERATURE SURVEY AND INFORMATION GATHERING	Literature survey and information gathered by searching papers, journals and some websites.	05/09/2022
	PREPARE EMPATHY MAP	Prepared the list of problem statements to make users easy to interact and understand.	10/09/2022
	BRAINSTROMING AND IDEA PRIORITISATION	In this phase we briefly discussed about our participation and actual idea behind this project.	14/09/2022
	PROBLEM STATEMENT	We discussed about the problem behind this project.	17/09/2022
PROJECT DESIGN PHASE I	PROBLEM SOLUTION FIT	In this phase we included customer segments, available solution, before and after use of this app, problem root cause	19/09/2022
	PROPOSED SOLUTION	Here we have given description for the given parameters.	22/09/2022

	SOLUTION ARCHITECTURE	What kind of technologies are used are discussed.	24/09/2022
PROJECT DESIGN PHASE II	CUSTOMER JOURNEY MAP	Here we have goals, negative and positive moments and opportunities	28/09/2022
	DATA FLOW DIAGRAM AND USER STORIES	Here we have clearly depicted the DFD and shows how data enters and leaves the system.	05/10/2022
	SOLUTION REQUIREMENTS	They have given functional requirements of proposed solutions.	10/10/2022
	TECHNOLOGY ARCHITECTURE	In this we have given a description for the components and technologies used.	14/10/2022
PROJECT DESIGN AND PLANNING	MILESTONE AND ACTIVITY LISTS	Here the phase and updated times are mentioned	22/10/2022
	SPRINT DELIVERY PLAN	The delivery of each sprint is displayed with code and execution.	07/10/2022
PROJECT DEVELOPMENT PHASE	SPRINT I	In this development phase, all the deployment progress are implemented and executed.	ON PROGRESS
	SPRINT II		
	SPRINT III		
	SPRINT IV		

CODING & SOLUTIONING

FEATURE 1

- Portable
- Scalable

FEATURE 2

- Easy to understand
- Attractive

RESULT:

The project of Nutrition assistant application successfully executed.

ADVANTAGES :

- 📌 It also offers detailed nutrient information for each ingredients in your food log and a daily analysis to help keep you on track
- 📌 Nutrition apps are effective in changing eating behaviour and diet – related health risk factors

DISADVANTAGES :

- 📌 Time consuming food entry systems
- 📌 Inaccurate information, Obsessive behaviour

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. one of the most basic function of such an app is to guide its users towards a healthy diet and assist them to achieve their health goals.

FUTURE SCOPE :

- ✚ This application helps many peoples to reduce us weights and take healthy foods to make strong life.
- ✚ which can be very handy and improves the dietary habits, and therefore, helps in maintaining a healthy lifestyle.

APPENDIX:

SOURCE CODE

LOGIN.HTML

```
<!DOCTYPE html>

<html lang="en" >

<head>

  <meta charset="UTF-8">

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

  <title>HTML5 Login Form with validation Example</title>

  <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/normalize/5.0.0/normalize.min.css">

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

</head>
```

```
<body><center>

<!-- partial:index.partial.html -->

<div id="login-form-wrap">

  <h2>Login</h2>

  <form id="login-form">

    <p>

      <input type="text" id="username" name="username" placeholder="Username" required><i
class="validation"><span></span><span></span></i>

    </p>

    <p>

      <input type="email" id="email" name="email" placeholder="Email Address" required><i
class="validation"><span></span><span></span></i>

    </p>

    <p>

      <input type="submit" id="login" value="Login">

    </p>

  </form>

  <div id="create-account-wrap">

    <p>Not a member? <a href="C:\sprint 1\templates\registration page.html">Create
Account</a><p>

  </div><!--create-account-wrap-->

</div><!--login-form-wrap-->

<!-- partial -->

</center>
```

```
</body>
```

```
</html>
```

REGISTRATION.HTML

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

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

```
<style>
```

```
body {
```

```
    font-family: Arial, Helvetica, sans-serif;
```

```
    background-color: black;
```

```
}
```

```
* {
```

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

```
}
```

```
/* Add padding to containers */
```

```
.container {
```

```
    padding: 16px;
```

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

```
}
```

```
/* 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;  
}
```

```
/* Overwrite default styles of hr */
```

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

```
/* Set a style for the submit button */
```

```
.registerbtn {
```



```
background-color: #04AA6D;  
  
color: white;  
  
padding: 16px 20px;  
  
margin: 8px 0;  
  
border: none;  
  
cursor: pointer;  
  
width: 100%;  
  
opacity: 0.9;  
  
}
```

```
.registerbtn:hover {  
  
    opacity: 1;  
  
}
```

```
/* Add a blue text color to links */
```

```
a {  
  
    color: dodgerblue;  
  
}
```

```
/* Set a grey background color and center the text of the "sign in" section */
```

```
.signin {  
  
    background-color: #f1f1f1;  
  
    text-align: center;
```

```
}  
  
</style>  
  
</head>  
  
<body>  
  
<form action="/action_page.php">  
  
<div class="container">  
  
<h1>Register</h1>  
  
<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" id="email" required>  
  
<label for="psw"><b>Password</b></label>  
  
<input type="password" placeholder="Enter Password" name="psw" id="psw" required>  
  
<label for="psw-repeat"><b>Repeat Password</b></label>  
  
<input type="password" placeholder="Repeat Password" name="psw-repeat" id="psw-repeat" required>  
  
<hr>  
  
<p>By creating an account you agree to our <a href="#">Terms & Privacy</a>.</p>
```

```

<button type="submit" class="registerbtn">Register</button>

</div>

<div class="container signin">

    <p>Already have an account? <a href="#">Sign in</a>.</p>

</div>

</form>

</body></html>

```

MAIN .PY

```

from
cryptography.hazmat
.backends import
default_backend

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

from markupsafe import escape

ALLOWED_EXTENSIONS = {'png', 'jpg', 'jpeg', 'jif'}

conn = ibm_db.connect(
    "DATABASE=bludb;HOSTNAME=fbd88901-ebdb-4a4f-a32e-
9822b9fb237b.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT"

    "=32731;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UI
D=qxm31937;PWD=m7RdWnmW3Y6zK1R",
    '', '')

print(conn)

```

Github - <https://github.com/IBM-EPBL/IBM-Project-3522-1658573139>