INTRODUCTION

Nutrition Assistant Application

Project Description:

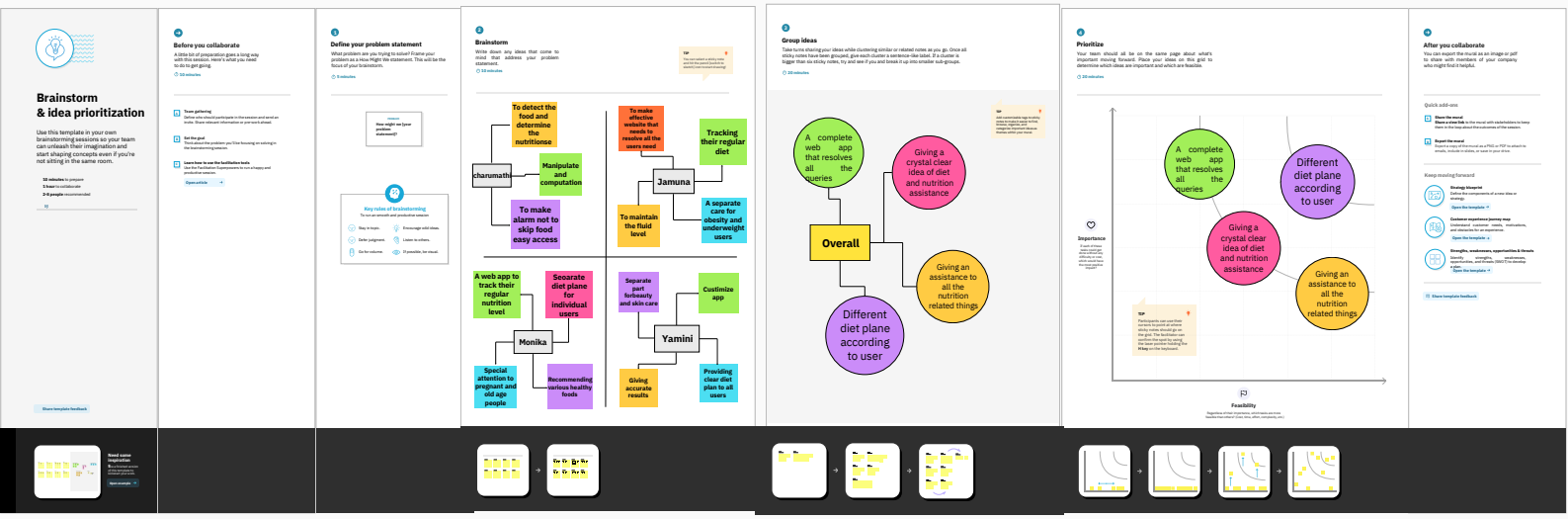
Due to the ignorance of healthy food habits, obesity rates are increasing at an alarming speed, and this is reflective of the risks to people’s health. People need to control their daily calorie intake by eating healthier foods, which is the most basic method to avoid obesity. However, although food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

IDEATION AND PROPOSED SOLUTION

Empathy Map Canvas:
An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes. It is a useful tool to helps teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenge

REQUIREMENT ANALYSIS



Problem-Solution fit canvas 2.0

Purpose / Vision

Define CS, fit

1. CUSTOMER SEGMENT(S) — CS

Who is your customer?
i.e. working parents of 0-5 y.o. kids

People of all age groups.

6. CUSTOMER CONSTRAINTS — CC

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.

Network connection and self awareness.

5. AVAILABLE SOLUTIONS — AS

Which solutions are available to the customers when they face the problem 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 alternative to digital notetaking

Chatbots and web apps for our nutrition assistance application.

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

Who is your customer?
i.e. working parents of 0-5 y.o. kids

Not maintaining the diet.

9. PROBLEM ROOT CAUSE — RC

What is the real reason that this problem exists?
What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

Self awareness and inactive .

7. BEHAVIOUR — BE

What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits;
indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

Enables 24*7 services and low power processing.

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS — TR

What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

Increase health issues among people.

4. EMOTIONS: BEFORE / AFTER — EM

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.

Before - insecure about their health.
After - mental peace in their regular diet.

10. YOUR SOLUTION — SL

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.

People of all age groups.

8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE
What kind of actions do customers take online? Extract online channels from #7

People from different age groups.

8.2 OFFLINE
What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

Hospitals and gyms.

Extract online & offline CH of BE

AMALTAMA

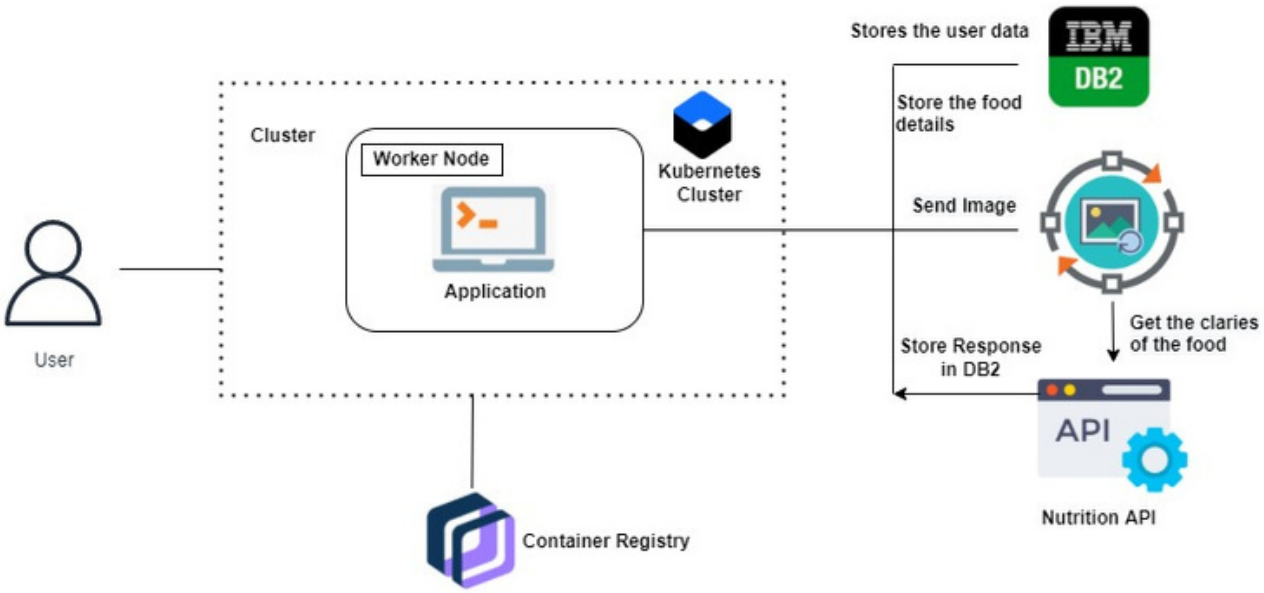
Literature Survey

S.NO	TITLE	PROPOSED WORK	SOFTWARE USED	TECHNOLOGY	ADVANTAGES/DISADVANTAGES
1	Personalized Dietary Assistant-an intelligent space application	Observes the daily consumption habits of users & applies data mining to learn the personal taste.	Distributed intelligent networked nevices(DINDS)	Data mining Artificial intelligence	Complex to calculate the entire nutritional value.
2	Plan-Cook-Eat:A Meal planner Aprogressive web app with optimal macronutrian distribution of calories based on total daily energy expenditure.	"Plane-cook -eat" application that generates meal plan complaint to the necessary macronutrient distribution ofdaily calories based on individuals total daily energy expenditure (TDEE).	•AQEL- A nutition app quality evalution tool. •DataSources:FoodDb,Philippine FoodComposition Table,MyFoodData,USDA food composition data	• Artificial Intelliegence. • Data analysis.	Generation of meal plan with optimal macronutrient distribution of daily calori.

S.NO	TITTLE	PROPOSED WORK	SOFTWARE USED	TECHNOLOGY	ADVANTAGES/ DISADVANTAGES
3	Profile Based System for Nutritional Information Management	Nutritional control by identifying the person's Shopping profile & uses the information to suggest the recommended food.	•Mobile Application •server	Information technology	Automated way to assist users to control food-intake.
4	Alexa,What should I Eat? A personalized Virtual nutrition coach for Native American Diabeties Patient	to design an Amazon skill to extend the capability of Amazon alexa to support diabeties for NA users.	•Amazon Alexa software Development kit •ASR •NLU	Artificial Intelligence.	Easy to accepted by the target audience with the help of speech-recognition

S.NO	TITTLE	PROPOSED WORK	SOFTWARE USED	TECHNOLOGY	ADVANTAGES/ DISADVANTAGES
5	Intelligent diabetes Assistant	The system collects & process the data more efficient for care team.	Intelligent Diabetes Assistant(IDA)	Machine Learning	Quick-evaluation of patient health.
6	Computers & E-health:Roles and new applications	Promoting the current & future roles of computers in supporting e-health.	Personal Health Assistant(PHA)	Data computing	Allow busy People to get Fast & Trusted healthcare at any time,anywhere

PROJECT DESIGN



Guidelines

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

PROJECT PLANNING AND SCHEDULING

Docker CLI Installation:

IBM gave the documentation link, for how to install the Docker and CLI installation.

we followed the instructions given by the documentation and we installed the Docker Desktop application.

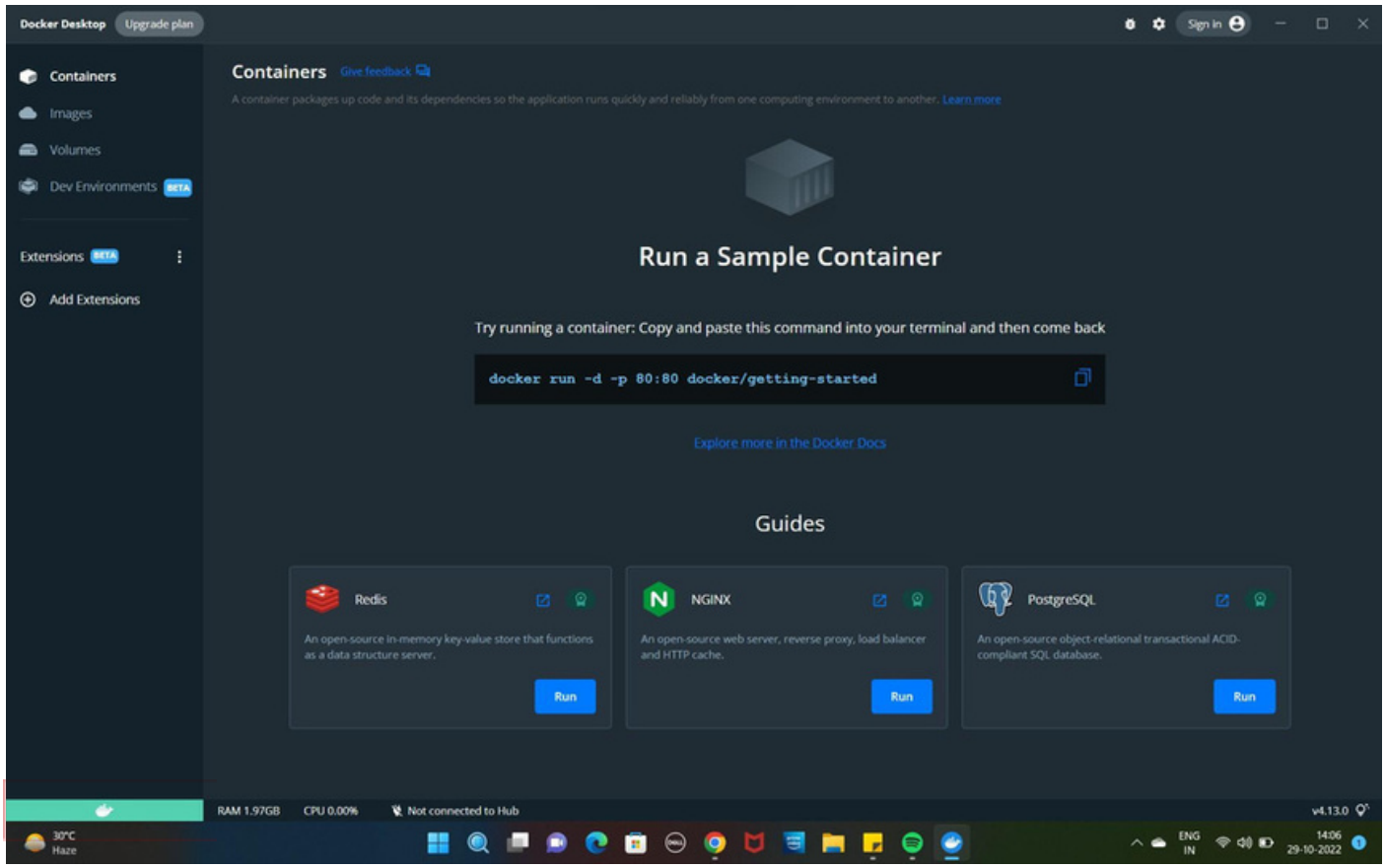
First to install “Docker Desktop Installer.exe” file from www.Docker.com

After downloaded the above file, follow the given below process:

Double-click Docker Desktop Installer.exe to run the installer.
Follow the instructions on the installation wizard to authorize the installer and proceed with the install.

When the installation is successful, click Close to complete the installation process.

Here is the Screenshot for the Docker installation, given Below:



Marked a small rectangle left corner to showing that the engine is running.

ADVANTAGES AND DISADVANTAGES

Advantages:

Very precise and accurate results

Reflects intake of previous day.so it can easily monitored.

Used to correlate precise intake of food and biomarker levels.

BMI also present for additional information.

Disadvantages :

It'll not reach the most illiterate people.

Need awareness and campaigns.

GITHUB AND PROJECT DEMO LINK

https://youtu.be/oN83GOltEy4

SOURCE CODE

```
<iframe width="560" height="315"
src="https://www.youtube.com/embed/oN83GOltEy4"
title="YouTube video player" frameborder="0"
allow="accelerometer; autoplay; clipboard-write;
encrypted-media; gyroscope; picture-in-picture"
allowfullscreen></iframe>
```