

Team No

PNT2022TMID44777

Project Name

Nutrition Assistant Application

Team Leader

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Team Members

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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

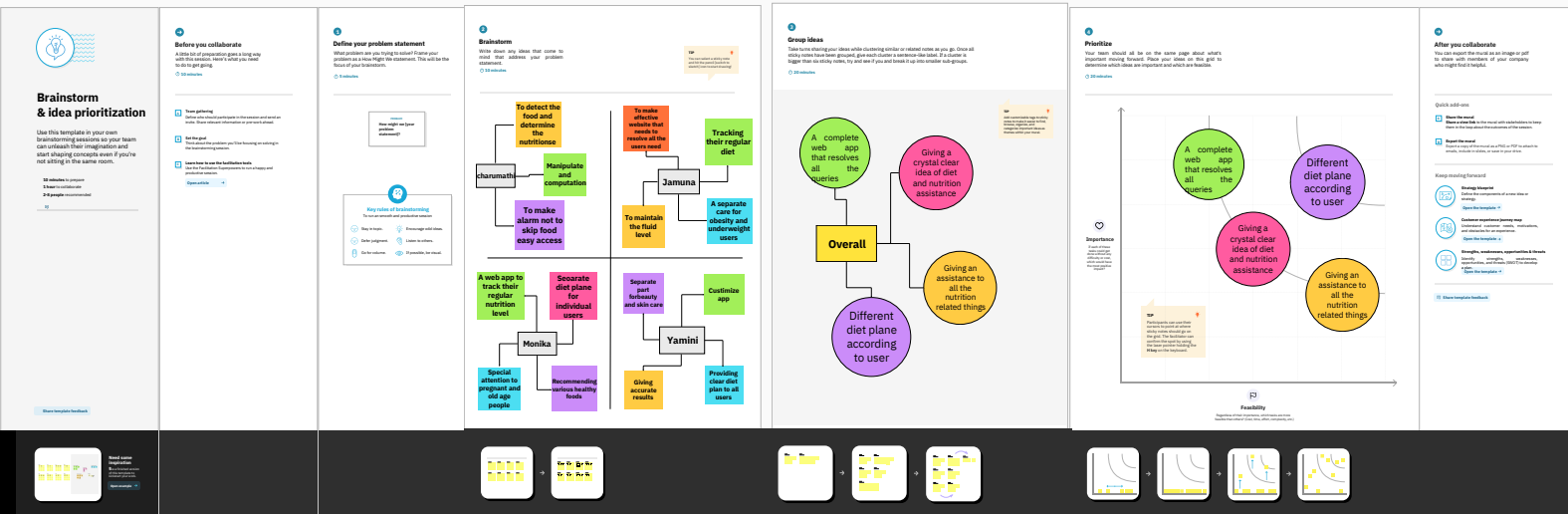
IDEATION AND PROPOSED SOLUTION

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 help 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

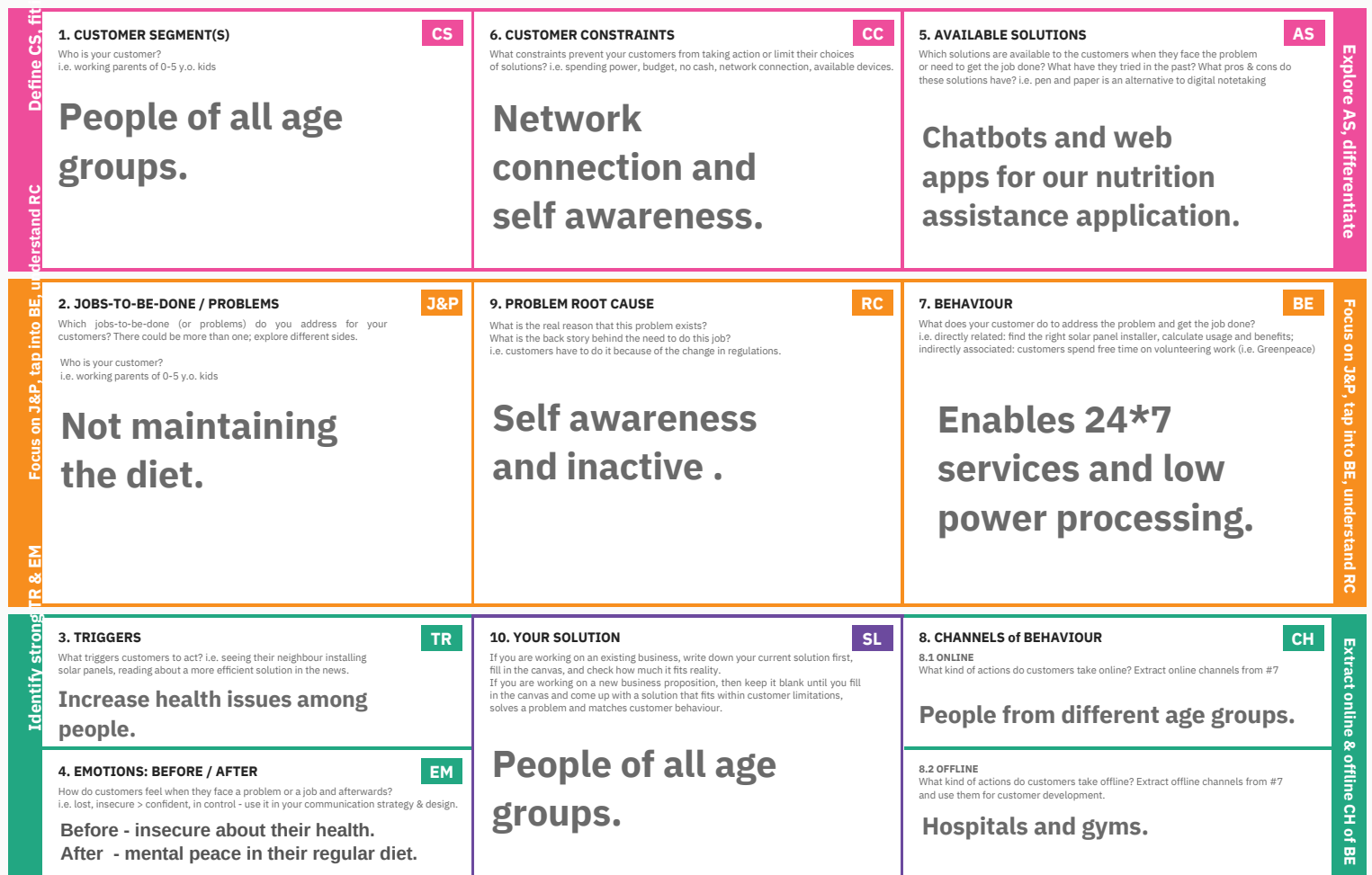


REQUIREMENT ANALYSIS



Problem-Solution fit canvas 2.0

Purpose / Vision



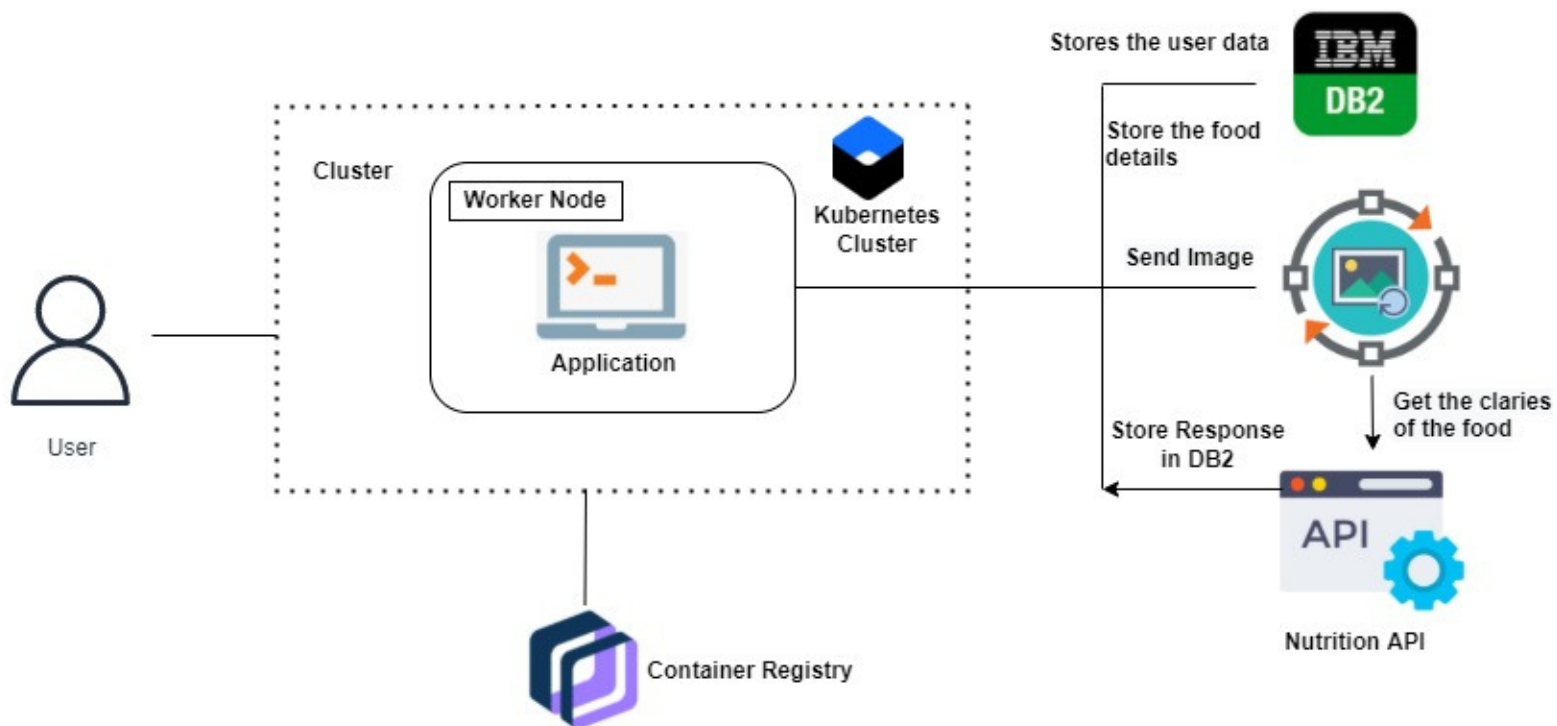
Literature Survey

| 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 “Plane-cook -eat” Meal planner A progressive web app with optimal application that macronutrian generates meal plan distribution of complaint to the calories based on necessary total daily energy macronutrient expenditure.distribution of daily calories based on individuals total daily energy expenditure (TDEE). | | <ul style="list-style-type: none"> •AQEL- A nutrition app quality evaluation tool. •DataSources:FoodDb,Philippine FoodComposition Table,MyFoodData,USDA food composition data | <ul style="list-style-type: none"> • Artificial Intelligence. • Data analysis. | Generation of meal plan with optimal macronutrient distribution of daily calori. |

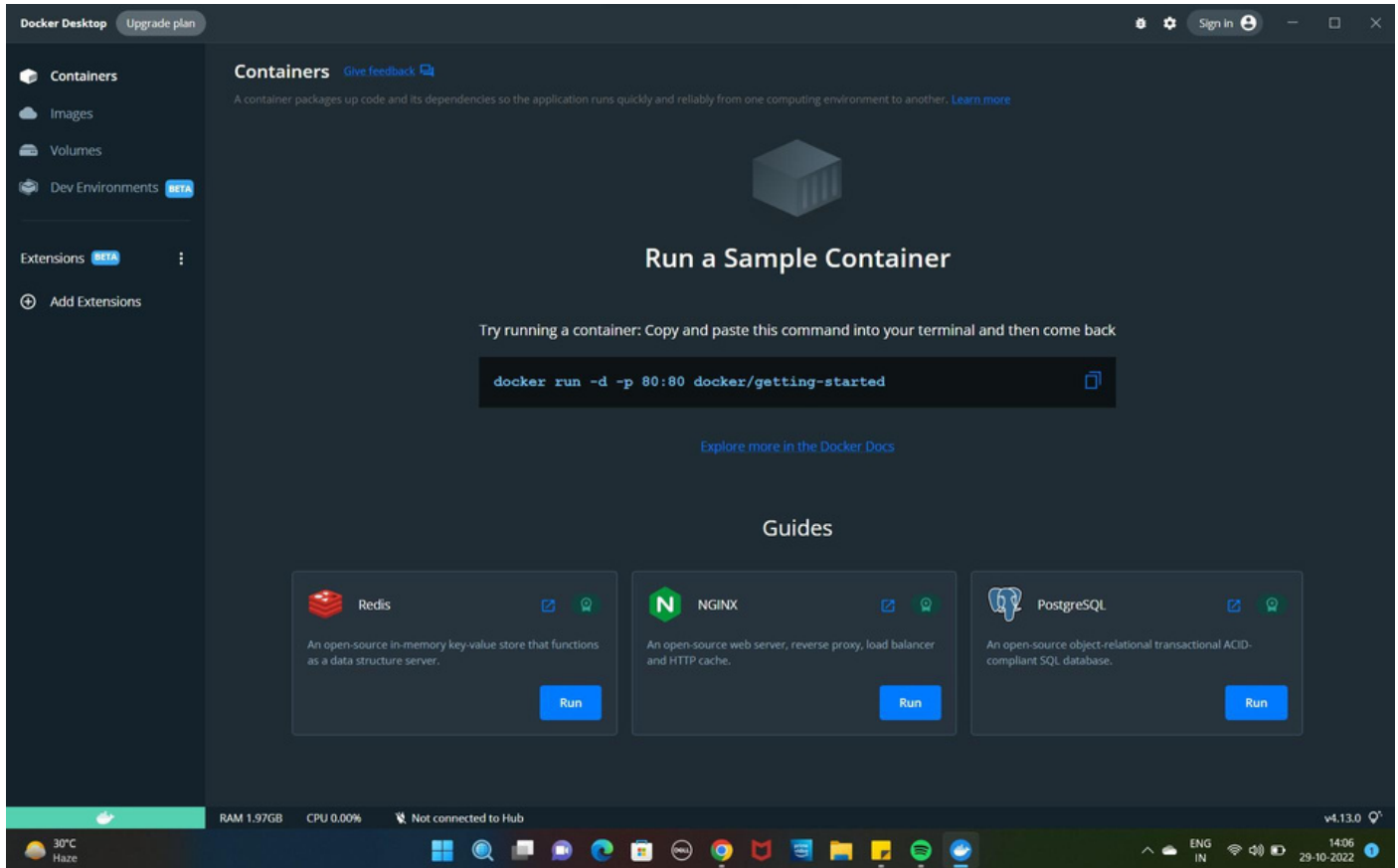
| S.NO | TITTLE | PROPOSED WORK | SOFTWARE USED | TECHNOLOGY | ADVANTAGES/ DISADVANTAGES |
|------|---|--|--|---------------------------|---|
| 3 | Profile Based System for Nutritional Information Management | Nutritional control by identifying the person's Shopping profile & uses the information to suggest the recommended food. | <ul style="list-style-type: none"> •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 Diabetes Patient | to design an Amazon skill to extend the capability of Amazon alexa to support diabetics for NA users. | <ul style="list-style-type: none"> •Amazon Alexa software Development kit •ASR •NLU | Artificial Intelliegence. | 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(PH A) | Data computing | Allow busy People to get Fast & Trusted healthcare at any time,anywhere |

PROJECT DESIGN



PROJECT PLANNING AND SCHEDULING



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

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<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>
```