



TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
STUDENT PROJECT PROPOSAL



1. Name of the Student (s) :

S. No	Name of the Student	E-Mail ID	Phone No.
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2. Name of the Guide : Mrs.S.Kanimozhi
Department / Designation : Department of IT / Assistant Professor
Institutional Address : M.Kumarasamy College of Engineering
Phone No. & Mobile No 9952855390
3. Project Title : Nutrition Assistant Application
4. Sector in which your Project proposal is: Engineering & Tech (Information Technology)
to be Considered
5. Project Details : Enclosed
6. Has a similar project been carried out in: No
your college / elsewhere? If so, furnish
details of the previous project and
highlight the improvements suggested
in the present one

CERTIFICATE

This is to certify that Mr. S. Hari Prasanth (19BIT4032) , Mr. A. Infant Franklin (19BIT4037) , Mr. S. Krishna Adithya (19BIT4050) and Mr. M. Logeshwaran (19BIT4052) are the bonafide final year student of U.G. Engineering course of our college and it is also certified that two copies of utilization certificate and final report along with seminar paper will be sent to the Council after completion of the project by the end of April 2023.

Signature of the Guide

Signature of the HOD

Signature of the Principal/
Head of the Institution
(With seal)

Nutrition Assistant Application

INTRODUCTION

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.

OBJECTIVE

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.

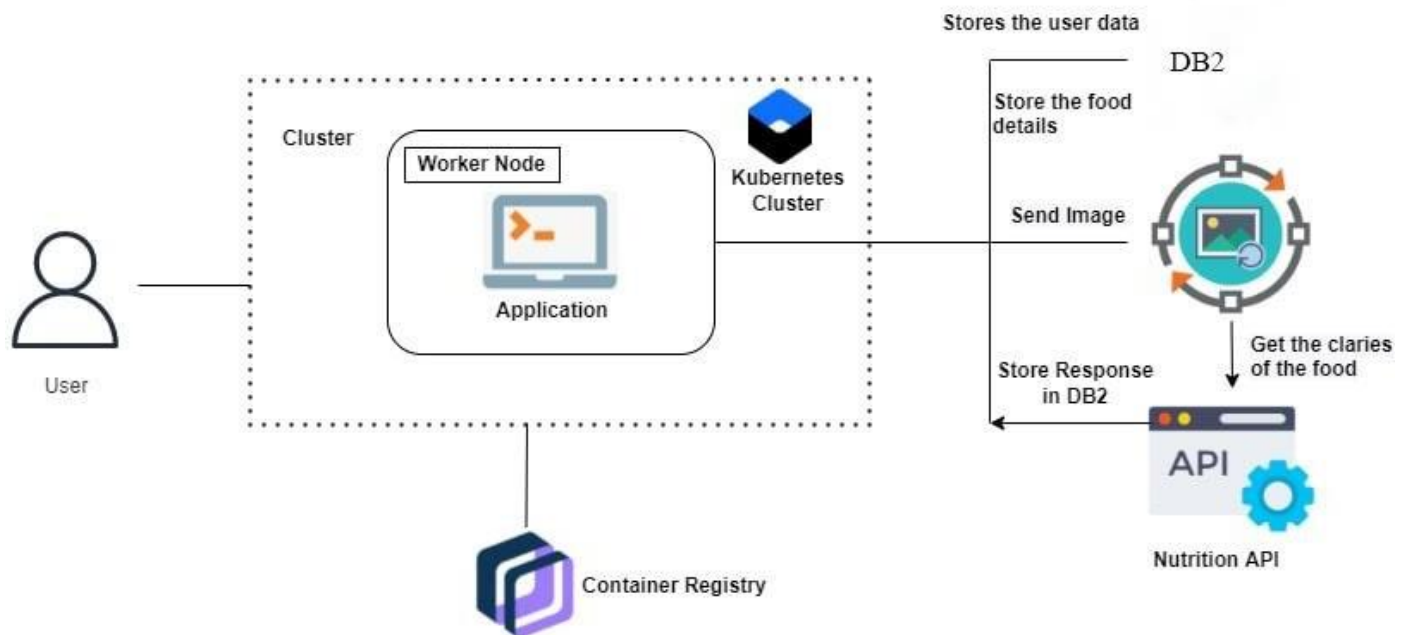
PROBLEM STATEMENT

It will help people with providing proper nutrition and helps in maintaining a healthy lifestyle.

METHODOLOGY

- 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.

WORKFLOW DIAGRAM



FEASIBILITY STUDY

Feasibility study is used to analyze the feasibility of the project modules and database. It checks the working of those attributes with regard to the requirements of the user.

- Database Tables
- Modules

MODULES

- Registration Page
- Login Page
- Upload Image page
- Prediction results page for food items
- View history of items

DATABASE

Create the IBM Db2 service in the IBM cloud and connect the python code with DB.

ADVANTAGES

- It helps in maintaining a healthy lifestyle.
- Simple and easy to use.

- It avoids the obesity.
- It can be very handy and improves the dietary habits.

HARDWARE AND SOFTWARE REQUIREMENTS

- Python
- Docker, Kubernetes
- Windows 64-bit
- Memory of 4 GB RAM or more
- Flask

WORKPLAN

S.NO	Plan	Date
1	Requirements Gathering and Designing of Modules	01.09.22 – 30.09.22
2	Module Development and availability Checking	01.10.22 – 30.10.22
3	Module for Originality Checking	01.11.22 – 31.12.22
4	Result and Discussion	02.01.23 – 16.01.23
5	First Demo	20.01.23
6	End Product Demo	22.02.23
7	Project Document Preparation	02.03.23
8	Document Submission to TNSCST Office	13.04.23

BUDGET

S.NO	Particulars	Amount
1	Consumables	5250
2	Equipment Cost	2750
3	Contingencies	600
4	Travel Cost	1000
5	Other Cost	350
Total		9950