

Nutrition Assistant Application

Literature Survey

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.

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.

Existing system:

The existing system has the following functionalities:

- The user can get details about a number of nutrients, vitamins etc of a fruit or vegetable.
- The user can add his recipes or get recepies using the API.
- The System basically helps the user in what to eat and which is good, what will help him and etc, the system will help him filter things easily.
- The System also allows the user to make a diet plan and remind him his food timings.

Proposed System:

- Customized and easy to access interface.
- Individual chat rooms with options of fixing appointments for counselling.
- Options of capturing data from counselling session for future references.
- Counselling for disease oriented diet plans like Ketogenic diet.

- Suggest diet plans.
- Calorie counter for selected food item.
- Alternative dish with required calories.
- Calorie values of more than 1000 International and Indian cuisines.
- Interesting notes on selected food items.

References:

1. Python Flask
<https://flask.palletsprojects.com/en/2.2.x/>
2. HTML
<https://developer.mozilla.org/en-US/docs/Web/HTML>
3. CSS
<https://developer.mozilla.org/en-US/docs/Web/CSS>
4. IBM Cloud
<https://cloud.ibm.com/docs>
5. DOCKER
<https://docs.docker.com/>
6. ibm_db
<https://www.ibm.com/docs/en/db2/11.5?topic=framework-application-development-db>