

NutriSage: Smart Nutrition Assistant for Food Analysis and Personalized Meal Guidance

by

AADITYA KUMAR DHAKA (2448001)

NEELANJAN DUTTA (2448040)

Under the guidance of

Dr. Sathya P



SEPTEMBER – 2025



CHRIST

(DEEMED TO BE UNIVERSITY)
BANGALORE | DELHI NCR | PUNE

Department of Statistics and Data Science

PROJECT DIARY - Sep 2025

Class: MSc Data Science

Trimester: V

Course : MDS581 - PROJECT - II

Student Reg. No: 2448040

Name: Neelanjana Dutta

Guide Name: Dr. Sathya P

Date: From : 15/09/25

To: 20/09/25

Task Completed:

During Week 1, I contributed to the project definition phase by analyzing different problem areas and identifying gaps in existing solutions. After discussions and review, I supported the decision to move forward with the nutrition-focused project because it is impactful, practical, and has available data sources for development.

GitHub link/page created.

Task Planned:

I planned to help in finalizing the project scope by suggesting practical features and supporting the dataset search. I also aimed to shortlist data sources from Kaggle and government nutrients dataset in Week 2.


Guide Signature



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Class: MSc Data Science

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Student Reg. No: 2448040

Name: Neelanjan Dutta

Guide Name: Dr. Sathya P

Date: From : 22/09/25

To: 27/09/25

Task Completed:

My focus in week 1 was on analyzing the dataset structures and checking their usability for our planned features. I reviewed USDA and OpenNutrition data for linking nutrients with food items and serving sizes, and studied Food-101 for image based classification. I also explored suitable models for chatbot and food recognition to ensure feasibility and efficiency.

Task Planned:

My task for next week will include supporting dataset integration and starting EDA by creating initial visualizations such as nutrient distributions, food category frequencies, and correlation between major nutrients. I will also document data quality issues and prepare pre processing steps for later model training.


Guide Signature

Meeting with our alumni (Sneha S)

The screenshot shows a Google Meet interface. The main window displays a presentation slide titled "Dataset Overview" which includes a grid of food images and a table of data. The table has columns for "Food Item", "Category", "Origin", "Preparation", "Season", and "Availability". The presentation is being shared by AADITYA KUMAR DHAKA 2448001. On the right side, there is a "People" panel showing the participants: AADITYA KUMAR DHAKA 2448001, Sneha S, and Neelanjana Dutta. The bottom of the screen shows the meeting controls, including a timer indicating 00:28:13.

Meeting with our alumni (Sneha S)

00:28:13

AADITYA KUMAR DHAKA 2448001 (Presenting)

Dataset Overview

Food Item	Category	Origin	Preparation	Season	Availability
Apple	Fruit	North America	Raw	Autumn	Year-round
Banana	Fruit	South America	Raw	Year-round	Year-round
Broccoli	Vegetable	Europe	Raw	Autumn	Year-round
Carrot	Vegetable	Europe	Raw	Autumn	Year-round
Cheese	Dairy	Europe	Raw	Year-round	Year-round
Chicken	Meat	North America	Raw	Year-round	Year-round
Corn	Grain	North America	Raw	Autumn	Year-round
Cucumber	Vegetable	Europe	Raw	Summer	Year-round
Egg	Protein	Europe	Raw	Year-round	Year-round
Fish	Protein	Europe	Raw	Year-round	Year-round
Grape	Fruit	Europe	Raw	Autumn	Year-round
Ham	Meat	Europe	Raw	Year-round	Year-round
Hot Pepper	Vegetable	South America	Raw	Summer	Year-round
Ice Cream	Dessert	North America	Raw	Summer	Year-round
Jackfruit	Fruit	South America	Raw	Summer	Year-round
Lemon	Fruit	Europe	Raw	Summer	Year-round
Mango	Fruit	South America	Raw	Summer	Year-round
Onion	Vegetable	Europe	Raw	Autumn	Year-round
Pineapple	Fruit	South America	Raw	Summer	Year-round
Potato	Vegetable	Europe	Raw	Autumn	Year-round
Salmon	Protein	North America	Raw	Year-round	Year-round
Shrimp	Protein	North America	Raw	Year-round	Year-round
Spinach	Vegetable	Europe	Raw	Summer	Year-round
Strawberry	Fruit	Europe	Raw	Summer	Year-round
Sweet Potato	Vegetable	Europe	Raw	Autumn	Year-round
Tomato	Vegetable	Europe	Raw	Summer	Year-round
Wheat	Grain	Europe	Raw	Autumn	Year-round
Yam	Vegetable	Europe	Raw	Autumn	Year-round

19:52 | kkh-azmy-thz