***AIML PROJECT ABSTRACT***

***Problem Statement:-***

Create a recipe recommendation and meal planning chatbot that can suggest meals based on user dietary preferences and constraints.

***DIET0 CHATBOT***

This project presents a recipe recommendation and meal planning chatbot designed to assist users in selecting meals based on their dietary preferences and constraints. Developed in Python, the chatbot allows users to specify preferences such as vegetarian, vegan, gluten-free, or low-carb diets. It provides personalized recipe recommendations that include ingredient lists and calorie counts. Additionally, the chatbot offers a meal planning feature, allowing users to generate multi-day meal plans tailored to their chosen dietary needs. This chatbot enhances user convenience by simplifying meal selection and planning, offering a foundation for further integration with external recipe databases and calorie tracking tools.

**OBJECTIVES:-**

* **Personalized Recipe Recommendations**: To provide users with meal options that match their dietary preferences, such as vegetarian, vegan, gluten-free, and low-carb, helping them maintain a healthy lifestyle.
* **Efficient Meal Planning**: To simplify the meal planning process by offering multi-day meal plans based on user preferences, saving time and effort in selecting meals.
* **Nutritional Awareness**: To enhance user awareness of the nutritional content of meals, including calorie information for better-informed eating decisions.
* **Flexibility and Scalability**: To create a flexible system that can be expanded to include more dietary preferences, new recipes, and advanced features such as nutrient tracking and shopping list generation.

**FEAUTURES:-**

* Recipe Recommendations: The chatbot provides a list of recipes based on user-selected dietary preferences, with detailed information on ingredients and calorie counts.
* Meal Planning: Users can request meal plans for multiple days, and the chatbot generates a structured plan with a variety of recipes, cycling through available options.
* Interactive Interface: The conversational chatbot interface allows users to engage with the system in a simple and intuitive manner.
* Dietary Preferences: Users can specify preferences such as vegetarian, vegan, gluten-free, or low-carb, and the chatbot tailors recommendations accordingly.
* Calorie Count: Each recipe comes with an estimated calorie count to help users track their nutritional intake.
* Scalable Architecture: The system can be expanded to include more dietary preferences, integrate external recipe APIs, or offer new features such as grocery list generation or advanced nutrient tracking.

**USE-CASES:-**

* Individual Meal Planning: Users who follow specific diets (e.g., vegetarian, vegan, gluten-free, low-carb) can receive recipe recommendations and meal plans tailored to their preferences, making it easier to manage their diet.
* Health-Conscious Eating: The chatbot helps users who are calorie-conscious by providing recipes with estimated calorie counts, making it suitable for individuals looking to manage their weight or adhere to fitness goals.
* Simplified Meal Preparation: Users with busy schedules can use the meal planning feature to organize their meals for the week, reducing the need to decide on meals daily.
* Nutritional Awareness: Users looking to learn more about the nutritional content of their meals can benefit from the chatbot’s calorie-tracking feature.
* Dietary Restrictions: Individuals with dietary restrictions such as gluten intolerance can use the chatbot to find safe and suitable meal options.
* Future Expansion: The chatbot can be enhanced to serve larger communities, such as fitness groups or nutritionists, by incorporating features like nutrient tracking, custom diet plans, and real-time grocery list generation.

**Team Members:-**

T Varshtih Swamy – 2320030196

T Sai Harsha – 2320030308

B Sri Hari - 2320030300