IS Project Prototype

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Introduction: Our project aims to develop an intelligent agent that can recommend different food items based on diet preferences such as vegan and non-vegetarian. The goal is to provide personalized recommendations to users who have specific dietary requirements, while also promoting healthy and balanced food choices.

Problem Description:

Background knowledge: Dietary restrictions and preferences are becoming increasingly common, with many people following specific diets such as vegan, vegetarian, or gluten-free. However, finding appropriate food options can be challenging, particularly when eating out or trying to follow a new diet. There is a growing need for intelligent agents that can recommend food items based on specific dietary requirements, while also taking into account factors such as taste preferences and nutritional value.

Questions: Our intelligent agent will aim to answer the following questions:
1. What are the best food options for individuals following a vegan diet?
2. Can the agent provide recommendations for different types of cuisine or cooking styles based on user preferences?
3. Can the agent provide additional information or resources for users who may be new to a specific diet or nutritional plan?

Techniques used:

Knowledge Representation: We will represent food items and dietary preferences using logical rules in ASP. This will allow us to reason about different food items and generate recommendations based on a user's dietary preferences.

Machine Learning: We will use machine learning techniques to learn from user feedback and improve the quality of the recommendations over time.

Natural Language Processing: We will use natural language processing techniques to enable users to interact with the agent using natural language queries.