# Nutrition Assistant Application

# Technology: Cloud Application Development

Literature Survey

**[1]**https://www.researchgate.net/publication/348459867_Dietitian_assistant_opportunities_within_the_nutrition_care_process_for_patients_with_or_at_risk_of_malnutrition_a_systematic_review

Dietitian assistant opportunities within the nutrition care process for patients with or at risk of malnutrition
**Pros:** when compared with routine nutrition care practices influences patient, healthcare and/or workforce outcomes for adult hospital inpatients with or at risk of malnutrition.
**Cons:** Implementing delegation of components of the nutrition care process to dietitian assistants is vital in the current health climate.

**[2]https://ieeexplore.ieee.org/document/9009613**

A Personalized Virtual Nutrition Coach for Native American Diabetes Patients Using Amazon's Smart Speaker Technology
**Pros:** Voice-based Artificial Intelligence-powered virtual assistant to help Native American diabetic patients to manage their daily diet, and to learn food and nutrition-related knowledge.
**Cons:** By using Voice assistants, these assistants are detect the background noise abd didn't give the accurate result.

**[3**]https://ieeexplore.ieee.org/document/9073490

A Meal Planner App with Optimal Macronutrient Distribution of Calories Based on Personal Total Daily Energy Expenditure
**Pros:** The development of a web-based meal planner app called 'Plan-Cook-Eat' that can generate tailored diet plans according to individual's needs. Six Registered Nutritionists–Dietitians served as a panel of human expert validators and 24 regular users served as app testers for evaluation using mixed-methods approach
**Cons:** By Using this app the loading of results will appears for longer time due to the acceptance of longer content description of the meal planner.

**[4]** https://ieeexplore.ieee.org/document/8320221

Monitoring Eating Behaviours for a Nutritionist E-Assistant Using Crowdsourcing
**Pros:** A digital assistant that monitors eating behaviors to help users lose weight. Lucy's design was informed by a study of clients in a nutrition clinic, as well as by crowdsourcing to evaluate six approaches to assessing nutritional content or caloric intake based on meal photos.
**Cons:** This proposed system only gives the results about the Frustration, Effort, Performance, Mental demand. It does not gives the whole nutrition planning about the uploaded meal.

**[5]** https://ieeexplore.ieee.org/document/8118575

Personalized Dietary Assistant - An Intelligent Space Application

**Pros:** Using existing dietary guidelines typically involve a strictly planned out regime, which can be hard to get used to or even to follow through, due to the sudden nature of the change. A solution to this problem can be a slow but gradual change of diet, which has a bigger chance to be successful if the changes align with the personal taste of the user. Starting from the regular diet, it would be very beneficial if the user observed the current nutritional values of his or her diet, and make gradual changes through informed decisions accordingly.

**Cons:** The disadvantage of this method lies in the complexity of the problem: at first it would seem easy to calculate the nutritional values considering the few nutrients and minerals that are listed on product labels, but in fact there are dozens of nutritional values that are needed to be accounted for, and most of them are not even listed on product labels