# Nutrition Assistant Application using Cloud Computing

## PROJECT STATEMENT

Nutrition Assistant Application helps various users to recognize nutrition of various foods that we used to eat on a daily basis. Sometimes people may eat junk and unwanted food which may contain unwanted amount of nutrition . By using this application it scans the image the user eats, by using the nutrition API which shows the nutrition of various food and helps the people to maintain healthy lifestyle .

| **Question** | **Description** |
|---|---|
| What are the benefits? | Nutrition of various foods can be obtained from this. Since it is integrated with cloud it productivity and efficiency by ensuring that our data is always accessible. |
| Why do the issue occurs? | The app can't run without any support with alternate applications. So extra modules may require in this project |
| How to solve the issue? | Using API and linking with cloud makes easy identification of food and easy to use |
| How is it better? | Linking with docker makes the data to be easily accessible and convenient from any device on the go, |
| Where it is used? | It can be used in all sorts of health related applications ,hospitals and fitness apps |

# PROBLEM STATEMENT

Healthy nutrition contributes to preventing non-communicable and diet-related diseases. The World Health Organization (WHO) reported that non-communicable diseases (NCDs) accounted for 71% of deaths worldwide each year, identifying unhealthy diets, smoking, and lack of exercise as major risk factors for NCDs. The Global Burden of Disease Study 2016 reported inadequate intakes of fruits, vegetables, legumes, whole grains, nuts and seeds, milk, red meat, processed meat, sugar-sweetened beverages, fiber, calcium, seafood omega-3 fatty acids, polyunsaturated fatty acids, trans fatty acids, and sodium as dietary risk factors for NCDs. Furthermore, GBD 2016 estimated that 13.87% of deaths were attributable to dietary risk factors in 2016, which increased from 8.54% in 2006. Globally, significant efforts have been made to reduce the burden of NCDs, but the prevention and management of NCDs remains challenging.

Dietary assessment and monitoring are essential steps to measure dietary intake and provide tailored advice that can improve dietary management and health. However, the dietary assessment methods currently used have inherent challenges including reliance on memory, time-consuming conceptualization of portion sizes, requirement of literacy or skilled staff, coding burden, knowledge of foods, and other time-consuming tasks It has been suggested that data analysis integrating using cloud technologies shows improvement of accurate assessment of dietary intake and customized feedback . Using Nutrition API from rapidapi.com and integrating with cloud technologies could be used to measure dietary intake or improve the measurement of dietary Although, the complete analysis has not been achieved yet, cloud technologies have the potential to improve real-time assessment of the diets of individuals and groups by incorporating their daily dietary routines

| | YEAR | TECHNIQUE (S) | FINDINGS | PROS AND CONS |
|---|---|---|---|---|
| Enhancing Cloud and healthy Food Nutrition Information Systems Practice-<br><br>Paul, PK and Aithal, PS and Bhuimali, A | 2017 | Cloud Computing, Mobile Computing | Among the common mass food information systems are not yet popularized as a domain and thus there are huge potentialities to work on this. | P: Regarding manpower development there are a lot of things are pending and possible to work with. Hence cloud will do an attention on skill and manpower development for sophisticated development of food information systems. |
| Mobile cloud based system recognizing nutrition and freshness of food image-<br><br>Kumbhar, Diptee and Patil, Sarita | 2017 | Cloud Computing, Image Segmentation | Mobile cloud computing (MCC) has been introduced to be a potential paradigm for mobile health services to overcome the interoperability issues over distinctive information formats. In this, we propose a mobile cloud-based food calorie measurement framework. | P: Multiple Platform Support<br>Cost-Efficient<br><br>C: Connectivity and Performance Issues |