

PROJECT DESIGN PHASE-1

SOLUTION ARCHITECTURE

AI -POWERED NUTRITION ANALYZER FOR FITNESS ENTHUSIASTS

Date	21 October 2022
Team ID	PNT2022TMID41375
Project Name	AI- Powered nutrition analyzer for fitness enthusiasts
Maximum Mark	4 Marks

Solution Architecture:

AI-Powered Nutrition:

- ❖ Food pattern is an important factor to prevent diseases and improve lifestyle. Studies show that changes in diet affect the evolution of chronic non-communicable diseases (CNCD) like cardiovascular diseases, obesity, and depression. It is highly recommended to change eating habits to prevent non-communicable diseases. Artificial Intelligence in nutrition is becoming popular for prevention and treatment.

Precision Medicine and AI:

- ❖ Precision medicine is an approach for disease prevention and treatment which considers individual variability in lifestyle and genes. Recently, the development of the large-scale biologic database, methods for characterizing patients, and the use of smart technology have greatly improved the application of precision medicine. Computational tools are now considered important to analyze large data sets. In this approach, the healthcare providers depend on electronic clinical decision support to make the right treatment decisions. Intelligent computer systems can be useful in this regard because the data generated requires reliable analysis from several variables.

Neutrino:

- ❖ Neutrino delivers nutrition-based data services and analytics to its users and wants to turn into a leading source of the nutrition-related platform. The platform employs NLP and mathematical models from the optimization theory as well as predictive analysis to enable individualized data compilation.

- ❖ It further enables its partners to purchase data regarding nutrition, using API and SDK integrations, to help improve their product offering and services.

Importance of Nutrition Analyzer:

- ❖ **Eating right can help us reduce body fat, lose a few pounds, feel more confident, and reduce our risk of illness.** Frequent studies are indicating healthy food intake as the most important part of our fitness programs.
- ❖ **Nutrition can help enhance athletic performance.** An active lifestyle and exercise routine, along with eating well, is the best way to stay healthy. Eating a good diet can help provide the energy you need to finish a race, or just enjoy a casual sport or activity.

Solution Architecture Diagram:







