Ideation Phase
Literature Survey

Date	20 October 2022
Team ID	PNT2022TMID33113
Project Name	AI Powered Nutrition Analyst for Fitness Enthusiasts.

S.No	Title & Author	Year	Technique	Proposed System
1	A New Deep Learning-based Food Recognition System for Dietary Assessment on An Edge Computing Service Infrastructure – Chang Liu, Yu Cao, Senior Member, IEEE, Yan Luo, Member, IEEE, Guanling Chen, Member, IEEE, Vinod Vokkarane, Senior Member, IEEE, Yunsheng Ma, Songqing Chen, Member, IEEE, Peng Hou	2020	Edge Computing	Literature has indicated that accurate dietary assessment is very important for assessing the effectiveness of weight loss interventions. However, most of the existing dietary assessment methods rely on memory. With the help of pervasive mobile devices and rich cloud services, it is now possible to develop new computer-aided food recognition system for accurate dietary assessment. However, enabling this future Internet of Things based dietary assessment imposes several fundamental challenges on algorithm development and system design. In this paper, we set to address these issues from the following two aspects: (1) to develop novel deep learning-based visual food recognition algorithms to achieve the best-in-class recognition accuracy; (2) to design a food recognition system employing edge computingbased service computing

				paradigm to overcome some inherent problems of traditional mobile cloud computing paradigm, such as unacceptable system latency and low battery life of mobile devices.
2	Android Based Monitoring System With Diet And Calorie Tracker - V. Ramkumar, 2 S.Priyanga Devi , 3 K. Laxmi Priya, 4 M. Kavya Dharshani 1Assistant Professor Electronics and communication Engineering K.Ramakrishnan college of Technology Trichy, Tamil Nadu	2022	Naive bayes Classifier algorithm	Having a fit and healthy body is everyone's dream, but it has somehow not been everyone’s cup of tea. Lack of motivation and guidance bars people from achieving their healthy goals. This project was designed to solve this every problem. This allows the users to keep track of their diet and exercise regime, take expert advice and connect to other fitness enthusiasts thus equipping them to maintain a healthy lifestyle. The system plans offer its customer and fitness enthusiasts many beauty tips options that can help them reach their goals. It serves as a calorie tracker, allowing users to lose weight and track their food and exercise regimens through their phones. There are four components.

3		2021	AI Approach	The advancement of artificial intelligence (AI) and the significant growth in the use of food consumption tracking and recommendation-related apps in the app stores have created a need for an
				evaluation system, as minimal information is available about the evidence-based quality and technological advancement of these apps. Electronic searches were conducted across three major app stores and the selected apps were evaluated by three independent raters.

Reference:

https://ieeexplore.ieee.org/ielaam/4629386/8332642/7837725-aam.pdf

https://www.ijert.org/research/android-based-monitoring-system-with-diet-andcalorie-tracker-IJERTCONV10IS09028.pdf

https://www.researchgate.net/profile/Anik-Das-6/publication/362265371_Smartphone_Apps_for_Tracking_Food_Consumption_and_Recommendations_Evaluating_Artificial_Intelligencebased_Functionalities_Features_and_Quality_of_Current_Apps/links/62e015693c0ea878875c889e/Smartphone-Apps-for-Tracking-Food-Consumption-andRecommendations-Evaluating-Artificial-Intelligence-based-FunctionalitiesFeatures-and-Quality-of-Current-Apps.pdf