Ideation Phase

Literature Survey

Date	17-October-2022
Team ID	PNT2022TMID02938
Project Name	Nutritional Assistant Application
Maximum Marks	4 Marks

1. Mobile cloud based system recognizing nutrition and freshness of food image

Authors: Diptee Kumbhar, Sarita Patil

Year: 2017

The framework presented in this research offers clients practical and clever methods that let them keep tabs on their calorie consumption and measure their food intake. Our system's food recognition method makes use of a cloud computing environment with classifier machine learning and a Naive Bayes training mechanism. Using image processing techniques, this device also verifies the fruit's freshness. The precision of the procedure used to measure calorie consumption is improved by this technology**.**

2. Cloud Based Metalearning System for Predictive Modeling of Biomedical Data

Authors: Milan VukiTeviT, Sandro RadovanoviT, Milo MilovanoviT

Year: 2013

This research presented a cloud-based infrastructure for biomedical big data storage, processing, and predictive modelling. The meta-learning system is added to the existing service-based cloud architecture as a knowledge service that is data and model driven. We supported community-based data and algorithm collecting as part of the suggested architecture because it is a crucial prerequisite for the high quality of meta learning. Through a platform for the development and execution of distributed data mining processes and algorithms, this research field can advance and gain new value. Finally, we provide data- and model-driven decision help for choosing the optimal biomedical data processing techniques.

3.The use of mobile apps to improve nutrition outcomes

Authors: Ktenris N DiFilippo, Wen-Hao Huang, Karen M. Chapman-Novakofski

Year: 2015

Studies that were descriptive, did not include apps, focused on app development, app satisfaction app feasibility, text messaging, or digital photography were exclude. We evaluated article quality using the Academy of Nutrition and Dietetics Evidence Analysis Manual.Data was extracted for knowledge, behavior and weight change. Our initial search identified 12,010 titles from PubMed, 260 from CINAHL and 4762 from Web of Science; of these, only four articles met all search criteria.Using app(s), cellular phone, iPads, mobile phone, mobile telephone, smart phone, mobile and mHealth as search terms with diet, food and nutrition as qualifiers we searched PubMed, CINAHL (January 2008- October 2013) and Web of Science (January 2008-January 2014). Positive quality ratings were given to three articles; only one reported knowledge outcomes Behavioral changes in reviewed studies included increased adherence to diet monitoring ($p < 0.001$) and decreased effort to continue diet without app ($p = 0.024$). Few studies, however, have explored the use of nutrition apps as supportive educational interventions. Most apps focus on weight loss with inconsistent outcomes. We conclude that using apps for education needs additional research which includes behavior theory within the app and improved study design.

4.Enhancing Cloud and Big Data Systems for healthy Food and Nutrition Information Systems Practice: A Conceptual Study

Authors: P.K. Paul1, P.S. Aithal2, A. Bhuimali3

Year: 2019

This essay clarified the fundamentals of cloud computing, such as its fundamental attributes and functionalities. It also aided in our understanding of the primary difficulties associated with cloud computing and related technologies in the context of poor nations.

5.Development of a cloud-based solution for effective nutrition intervention in the management of lifestyle diseases.

Authors: Manju P George, C. A. Kalpana

Year: 2020

This paper proposes a system that aims to bridge the gap between clinical nutrition and the common man. For the purpose of prescribing therapeutic nutrition in clinical settings, a web-based application is being developed. The cloud-based solution would be able to figure out the nutritional needs and automatically direct first-line nutritional treatment to patients and clients. Additionally, it functions as an electronic medical and dietetic record, allowing for the planning of a customised nutrition counselling approach around the client's hectic schedule. One method is much simpler, and the client can speak with his or her personal nutritionist in a setting that suits them.

6.Dietary Nutrition Cloud Platform Technology Based on Big Data

Author: Muhammad Jmail

Year: 2021

In order to identify the relationship between dietary intake and disease, this paper analyses the characteristics of the food nutrition cloud platform, disease, and nutrition intake in great detail. It also identifies the drawbacks of the traditional association rule algorithm in the dietary nutrition cloud platform and suggests an improved immune algorithm based on clustering. The method can speed up association rule searches and can instantly locate the desired number of frequent item sets.