Ideation Phase
Literature Survey On The Selected Project & Information Gathering

Date	03 October 2022
Team ID	PNT2022TMID04947
Project Name	AI-Powered Nutrition Analyzer For Fitness Enthusiasts
Maximum Marks	4 Marks

ABSTRACT:

It 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 systems for accurate dietary assessment. However, enabling this future Internet of Things-based dietary assessment imposes several fundamental challenges on algorithm development and system design.

INTRODUCTION:

In the last few years, we have witnessed an explosive increase of mobile and wearable computing devices (e.g., the smart watch and smart phone) in the consuming electronics market. One common characteristic of these devices is that many of them have inexpensive, unobtrusive and multimodal sensors. These sensors enable us to collect multimedia data (e.g., video and audio) in natural living environments. Due to the ubiquitous nature of mobile and wearable devices, it is now possible to use these devices to develop pervasive, automated solutions for dietary assessment.One example of such solutions is to use mobile devices as a pervasive food journal collection tool and to employ cloud service as a data analysis platform. The combination of mobile devices and cloud service could contribute to improving the accuracy of dietary assessment. As a result, in the last few years, we have seen several mobile cloud software solutions 12 to 14 to improve the accuracy of dietary intake estimation. One common issue among these solutions is that the users of the software must enter what they have eaten manually.

LITERATURE SURVEY:

YEAR	TITLE	AUTHOR	ADVANTAGES	DISADVANTAGES
2019	Health Fitness Exercise Eating Healthy	Dana Sullivan Kilroy	Learn about the importance of healthy breakfasts, workout snacks and meal plans.	This will help prevent any stomach discomfort during exercise.

YEAR	TITLE	AUTHOR	ADVANTAGES	DISADVANTAGES
2021	Feeling good the future of the wellness market	Shaun Callaghan	Since views of wellness are constantly evolving, companies must understand the market from a consumer perspective.	Meanwhile, other mindfulness and fitness apps have expanded into "sleep casts" or moved into personalized health coaching and disease management to promote better health outcomes.

YEAR	TITLE	AUTHOR	ADVANTAGES	DISADVANTAGES
2021	Best Foods to Eat When You're Exercising More, According to Dietitians	Karla Walsh	Boost muscle growth and limit the muscle protein breakdown	Otherwise, listen to your hunger and fullness cues.
2019	Everything You Need to Know About Fitness	Aleisha Fetters	But physical fitness should not solely be measured with any one of these or other tests or evaluations, he adds	These plant compounds are associated with reductions in inflammation, which may have health benefits.

REFERENCE:

1.https://www.healthline.com/health/fitness-exercise-eating-healthy

2.https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/feeling-good-the-future-of-the-1-5-trillion-wellness-market

3.https://www.eatingwell.com/article/7938635/best-foods-to-eat-when-youre-exercising-more-according-to-dietitians/

4.https://www.everydayhealth.com/everything-you-need-know-about-fitness-why-its-about-way-more-than-hitting-gym/

5.https://analyticsindiamag.com/5-ai-powered-nutrition-apps-that-help-fitness-enthusiasts-with-their-calorie-intake/

6.https://thinkml.ai/ai-in-nutrition-top-10-fitness-apps-and-startups/