Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID48550
Project Name	PROJECT- AI POWERED NUTRITION ANALYZER FOR FITNESS ENTHUSIASTS
Maximum Marks	4 Marks

Technical Architecture:

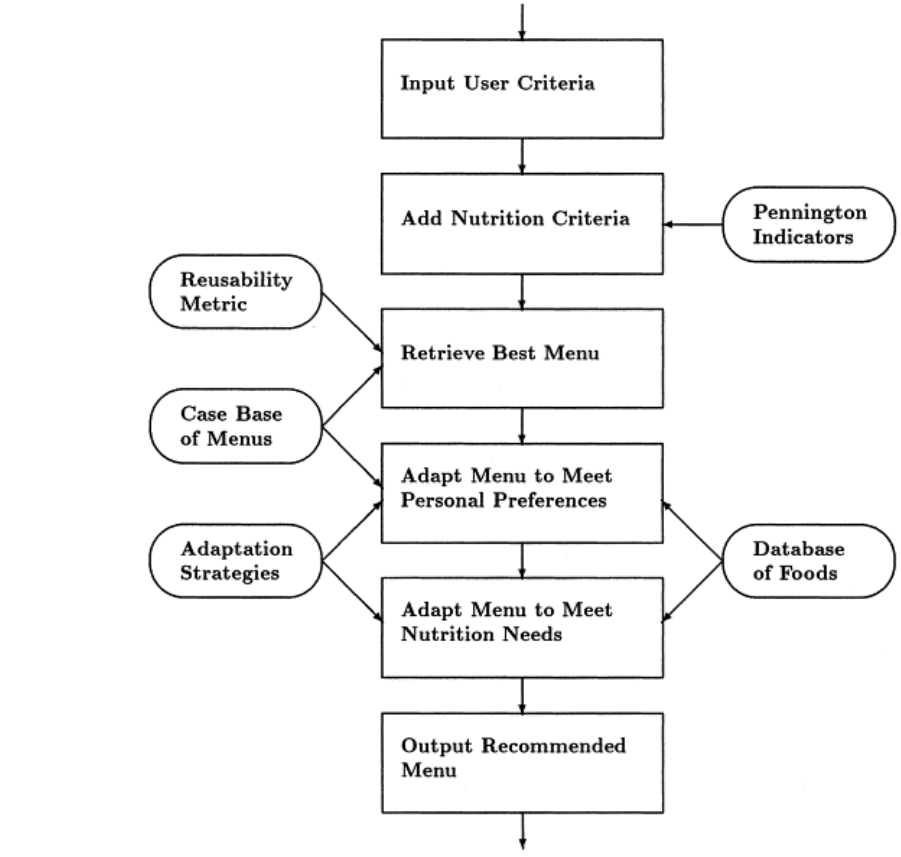

Table-1 : Components & Technologies:

S.NO	Component	Description	Technology
1.	User Interface	MobileNet and ShuffleNet. Microsoft's OneNote	AI/Python
2.	Application Logic-1	This means flask provides you with tools, libraries and technologies that allow you to build a web application. This web application can be some web pages, a blog, a wiki or go as big as a web-based calendar application or a commercial website.	Python
3.	Application Logic-2	Deep learning is a type of machine learning and artificial intelligence (AI) that imitates the way humans gain certain types of knowledge. Deep learning is an important element of data science, which includes statistics and predictive modeling.	java/python
4.	Application Logic-3	Mobilenet is a model which does the same convolution as done by CNN to filter images but in a different way than those done by the previous CNN. It uses the idea of Depth convolution and point convolution which is different from the normal convolution as done by normal CNNs	java/python
5.	Database	Convolutional neural network	AI
6.	Cloud Database	Database Service on Cloud	Python
7.	File Storage	Cloud Storage: local processing is viable in many cases, collecting data from multiplesources and processing them in a server results to optimum parameters estimation	Cloud storage

		for achieving the best possible performance in terms of accuracy.	
8.	External API-1	Python-based web framework thatfollows the Model-View-Template (MVT) architectural pattern.	Python

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Security Implementations	Always sanitize data (remove sensitive information) from external sources whether the data originates from a user input form, scraping a website, or a database request.	Python
2.	Scalable Architecture	requires both datasets and models to be discovered, shared, reused, and recombined across a variety of mission capabilities. This involves developing and institutionalizing policies and mechanisms for managing, tracking, versioning, and analyzing reused and derivative capabilities	Python
3.	Availability	The probability that an item will operate satisfactorily at a given point in time when used under stated conditions in an ideal support environment	Python
4.	Performance	Completely data driven. It has no personal likes or dislikes. It collects information from multiple sources, eliminating the room for error in the data itself	Python