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

Date	09 NOVEMBER 2022
Team ID	PNT2022TMID07688
Project Name	AI-powered Nutrition Analyzer for Fitness Enthusiasts
Maximum Marks	4 Marks

Technical Architecture:

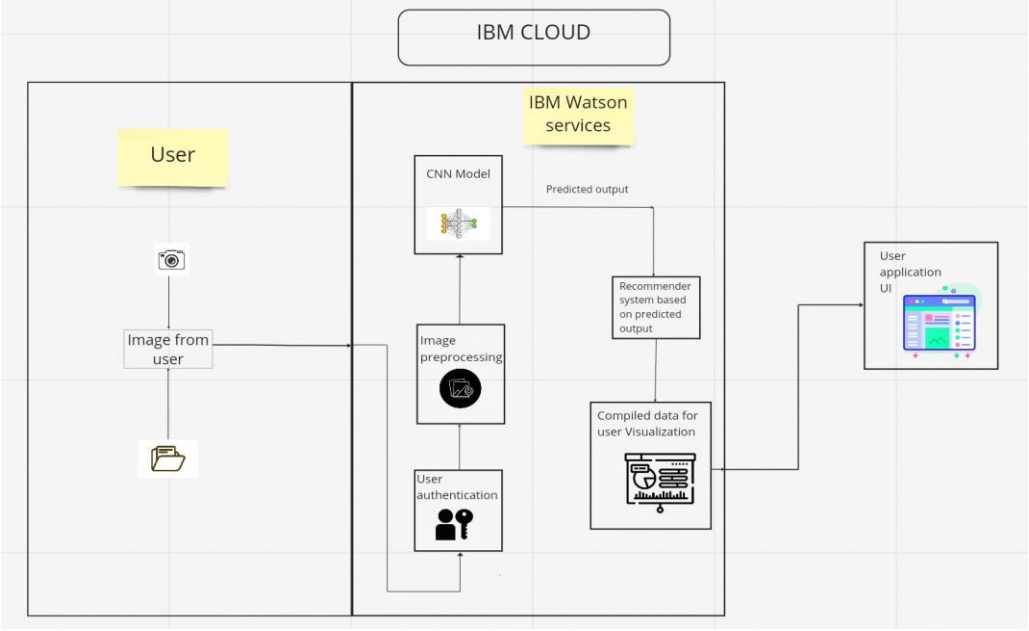

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g.Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript
2.	Backend	Server to run the application 24x7 in the IBM cloud	Python (django)
3.	Authentication	Authentication type and usage	Session authentication in django
4.	PAAS	Platform As A Service	ML services in IBM Cloud and WatsonStudio
5.	Database	Data Type, Configurations etc.	PostgreSQL
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage system	IBM Block Storage or Other StorageService or Local Filesystem
8.	Camera Accessing	To access the camera of user	MediaStream Recording API
9.	Machine Learning Model	CNN model for identification and classification ofdata from users.	Object Recognition and image classification Model, suggestion andrecommendation. [CNN, Open CV]
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / CloudLocal Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	NEXT, DJANGO, TENSORFLOW,OPENCV
2.	Security Implementations	List all the security / access controls implemented,use of firewalls etc.	SHA-256, Encryptions, IAM Controls,OWASP etc. Django's default security management
3.	Scalable Architecture	Scalability of architecture (3 – tier, Micro-services)	IBM Cloud
4.	Availability	Justify the availability of applications (e.g. use ofload balancers, distributed servers etc.)	IBM Cloud
5.	Performance	Design consideration for the performance of theapplication (number of requests per sec, use ofCache, use of CDN's) etc.	IBM Cloud