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

Date	15 October 2022
Team ID	PNT2022TMID33008
Project Name	Project - AI-Powered Nutrition Analyzer for Fitness enthusiasts
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

AI powered Nutrition Analyzer for Fitness enthusiasts :

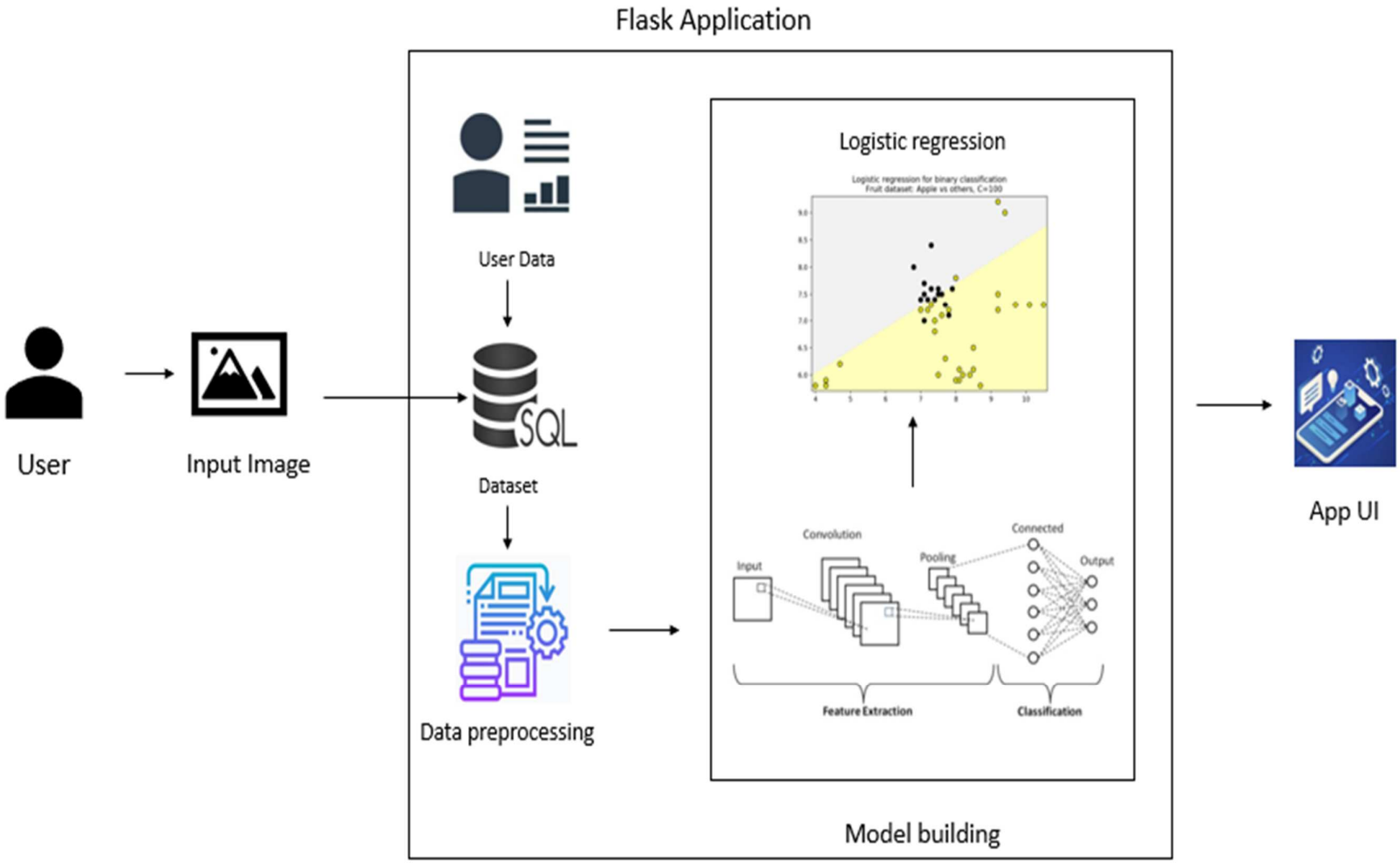
Flask Application
User
Input Image
User Data
SQL
Dataset
Data preprocessing
Logistic regression
Logistic regression for binary classification
Fruit dataset: Apple vs others, C=100
Convolution
Pooling
Connected
Input
Output
Feature Extraction
Classification
Model building
App UI

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
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	Flask Framework
4.	Application Logic-3	Logic for a process in the application	IBM Cloud
5.	Database	Data Type, Configurations etc.	Sequential
6.	Cloud Database	Database Service on Cloud	IBM DB, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External AP-1	Purpose of External API used in the application	Functional API
9.	External API-2	Purpose of External API used in the application	Rapid API
10.	Machine Learning Model	Purpose of Machine Learning Model	CNN
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local Browser, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Anaconda Navigator
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Encryptions
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	HTML, Python
4.	Availability	Justify the availability of application (e.g., use of load balancers, distributed servers etc.)	HTTP
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Cloudflare