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

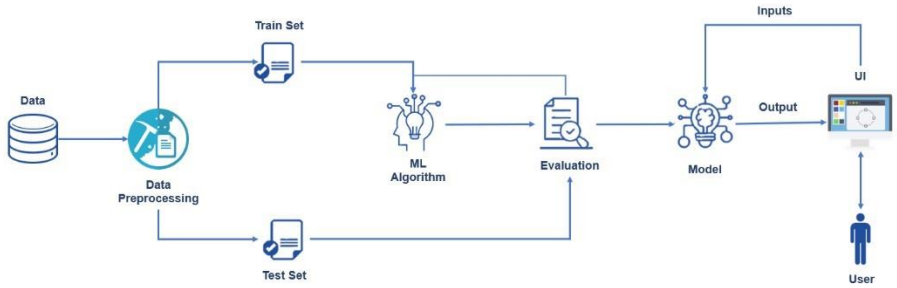
Date	15 October 2022
Team ID	PNT2022TMID32724
Project Name	Project – Car Resale value prediction
Maximum Marks	4 Marks

Technical Architecture:

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

Example: Order processing during pandemics for offline mode

Reference: https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/



Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web Ui only	HTML, CSS,Python, Flask
2.	Application Logic-1	Load the data set and find the test data and train data	Python

3.	Application Logic-2	Logic for a process in the application	Pandas,numpy,sklearn
4.	Application Logic-3	Logic for a process in the application	flask
5.	Database	Data Type, Configurations etc.	Dataset
6.	Cloud Database	Database Service on Cloud	IBM Cloudant
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Purpose of External API used in the application	IBM cloud API, etc.
9.	Machine Learning Model	Purpose of Machine Learning Model	Regression Model.
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local 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	Technology of Opensource framework
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Machine Learning
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Machine Learning
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Pyhton Flask,html,css