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

Date	15 October 2022
Team ID	PNT2022TMID10856
Project Name	Project – Machine learning based vehicle performance analyser
Maximum Marks	4 Marks

Technical Architecture:

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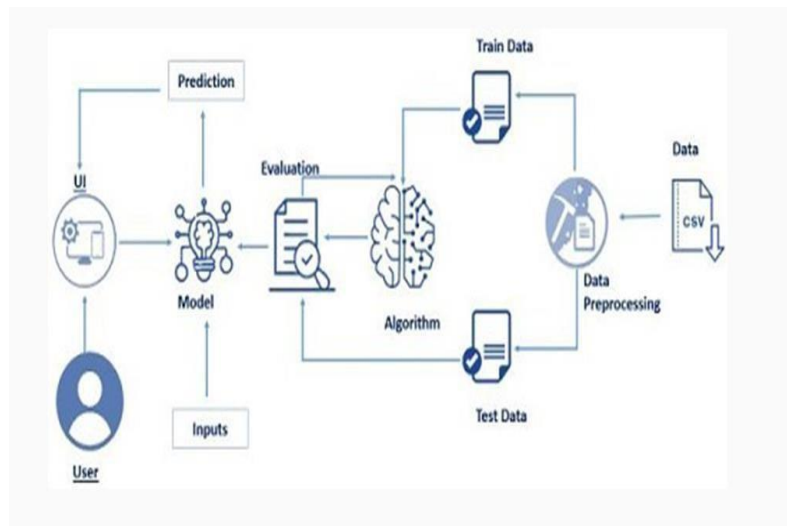
Guidelines:

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	With the help of web UI, user has better experience And can access the website user-friendly.	HTML, CSS.
3.	Application Logic-1	Customer can give their vehicle Information .	IBM Watson STT service
4.	Application Logic-2	Customer can check their vehicle performance.	IBM Watson Assistant
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
10.	Machine Learning Model	To create model for Prediction.	Random Forest Regressor.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	IBM Cloud Services.

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used FLASK	Technology of Opensource framework PYTHON

S. No	Characteristics	Description	Technology
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services) This improves scalability, because application servers can be deployed on many machines. The database does not make longer connections with every client – it only requires connections from a smaller number of application servers	Presentation Layer – FLASK (HTML, CSS) Application Layer – Flask (Python) Data Layer – IBM DB2
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	-
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache) etc.	-