

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	03 October 2022
Team ID	PNT2022TMID35529
Project Name	Project - Machine Learning Based Vehicle Performance Analyzer Machine Learning Based Vehicle Performance Analyzer
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Google O-Auth
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Vehicle Data Collection	User input through a Form Sending the data to the server
FR-4	Query Processing	Predict the expected mileage using the ML model Look for newer cars that are similar to the current model.
FR-5	Report Generation	Show the expected mileage, graph the expected mileage throughout time. Suggest similar car models from the database.

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	This application does not require any new specialised hardware to collect data. It tries to estimate mileage through data that the user can collect manually.
NFR-2	Security	Protected against all forms of web-based threats including but not limited to the OWASP Top 10 vulnerabilities, ensuring Confidentiality, Integrity and Availability (CIA Triad).
NFR-3	Reliability	The application will give near perfect predictions regarding the efficiency and the remaining life span of the car and it will be devised such that the false positives will not affect the users badly in any way.
NFR-4	Performance	This application can support a reasonably large number of users accessing the services

		simultaneously, with little to no noticeable effect on the performance.
NFR-5	Availability	Ensuring that the application would be available to all the users at all the time, minimising the downtime of the services.
NFR-6	Scalability	This application can be extended for all the vehicles, not only for cars.