Project Design Phase-I
Problem – Solution Fit Template

Date	10 October 2022
Team ID	PPNT2022TMID17991
Project Name	Project - Machine Learning based Vehicle Performance analyzer
Maximum Marks	2 Marks

Problem – Solution Fit Template:

Problem Solution Fit — **Machine Learning Based Vehicle Performance Analyzer**

1. Customer Segment

- Vehicle Manufacturer.
- Automobile Wholesale Buyers.

6. Customer Limitations

- No availability of devices to measure the performance of the vehicle.
- Limited Budget.
- Internet connection.
- Availability of a smart phone.
- Accurate measurements of vehicle's performance metrics.

5. Available Solutions

- Manually analyzing the data in order to predict a performance metric of a vehicle.
- Approximate predictions of metrics which always had discrepancies.
- Trial and error method of analysis.

2. Problems / Pains

- To analyze the performance of the vehicle in order to arrive at optimized mileage of that particular vehicle.
- To improve System's fuel consumption.

9. Problem Root / Cause

Customer need to develop a car which has low manufacturing cost, doesn't require frequent maintenance and consumes low fuel in order to increase their product's market value

7. Behaviour

- Analyse and find the right parameter which helps to increase the performance.
- Make changes to the existing model based on the prediction.

3. Triggers to Act

- Seeing customer reviews.
- comparing the benefits gained across different vehicle Models.

4. Emotions

- Frustrated -> Contentment.
- Squander Money -> Cost Effective.

10.Your Solution

An application which takes the details of the car's features as inputs, then analyses those input features to predict the performance and provides the results to the Customer. This helps the customer to significantly increase the efficiency of the vehicle.

8. Channels of Behaviour

ONLINE:
Analyse and find the right parameter which helps to increase the performance.

OFFLINE:
Make changes to the existing model based on the prediction.