Requirements and Constraints

Requirements:

● Access to sensor data from vehicles (IoT-enabled systems).

● Machine learning framework (using Python libraries like Scikit-learn and TensorFlow).

●Cloud infrastructure for processing enormous amounts of data.

● A workforce has the necessary skills to train and implement AI models.

●Real-time vehicle sensor data must be gathered by the system.

●The AI model should be able to forecast component failure with at least 85% accuracy.

●Fleet managers should find the user interface easy to use.

● The system need to send out email or SMS alerts automatically.

Constraints :

● Historical labeled failure data is not readily available. ●Difficulties integrating legacy automotive systems.

●The initial setup expenses for cloud infrastructure and IoT sensors are high.

●Data quality and availability: The system relies on a consistent supply of high-quality sensor data from the cars.

●Integration with existing systems: The company's fleet management software should be able to be integrated with the AI system.

●Cost: The project must be created and carried out within a specified spending limit.