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

Date	06 May 2023
Team ID	NM2023TMID07918
Project Name	Project - AI enabled car parking using open CV

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Vehicle Detection	This system should be able to detect the presence of a vehicle in a parking spot using Open CV algorithms and cameras.
FR-2	Space availability detection	The system should be able to determine whether a parking space is available or occupied, based on the presence or absence of a vehicle.
FR-3	License plate recognition	The system should be able to recognize and read license plates of parked vehicles, and store this information for future reference.
FR-4	Payment integration	It is able to integrate with a payment system to allow drivers to pay for parking fees using various payment methods such as cash, credit cards,and so on.
FR-5	Security Monitoring	The system should be able to monitor the parking area for security purposes, including the detection of suspicious or criminal activities.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	This refers to designing a user-friendly interface that helps users easily locate available parking spots, and receive guidance.
NFR-2	**Security**	It involves monitoring the parking area for suspicious or criminal activities and ensuring the safety of parked vehicles and drivers
NFR-3	**Reliability**	It refers to the system's ability to accurately detect the availability of parking spaces and provide reliable guidance to drivers.
NFR-4	**Performance**	This refers to the speed and accuracy of the system in detecting and recognizing vehicles, and providing real-time navigation.
NFR-5	**Availability**	It refers to the system's ability to function without interruption, ensuring that parking availability and guidance information is always available to users.