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

Date	30 October 2022
Team ID	PNT2022TMID21659
Project Name	Signs With Smart Connectivity for Better Road Safety
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 can be done through Website or using the email in the mobile application
FR-2	User Confirmation	Confirmation is done using the user email or OTP to the user's mobile
FR-3	Sensors	Used for predicting the traffic and distance between vehicles to avoid collisions
FR-4	Weather Monitoring App (API)	Connecting the system to an API to get weather forecast
FR-5	Accessing Datasets	Retrieving the datasets from the cloud platform for analysis
FR-6	WIFI modules for connectivity	Providing connectivity to the devices involved in the system
FR-7	Web Application	Signboard and sensors in the road can be controlled by web application

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	It's used for the people who cross the road slowly, and also those who are rushing to the exams or meetings preventing pedestrian accidents. It is used to control traffic congestion and prevent accidents during weather change.
NFR-2	**Security**	Cloud data must be contained within the network, collapsing to be the real-time avoidance should be avoided, and the board will be monitored constantly.
NFR-3	**Reliability**	It should be able to display to information correctly and error-free.
NFR-4	**Performance**	It should be able to automatically update itself when certain weather or traffic problem occurs and provide accurate results.
NFR-5	**Availability**	It's available for 24x7 hours and in any climate conditions.
NFR-6	**Scalaility**	The weather condition report and the vehicle details are updated in the cloud platform dynamically and old data is erased and there is more than enough memory for computation and provides fast execution.