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

Date	12 October 2022
Team ID	PNT2022TMID00923
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**	• Through google forms • Through mail • Through linkedin • Through facebook
FR-2	**USER CONFIRMATION**	• Through verification mails • Through OTP
FR-3	**USER APPROVAL**	• Through mails • Through phone calls • Through SMS
FR-4	**USER TRANSACTION**	• Through net banking • Through UPI
FR-5	**TESTING**	• Testing through components • Testing through API and UI
FR-6	**END RESULT**	• End result through product features • By using the technology

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	• Situations never remain the same. Therefore there must be a constant check of the conditions prevailing and accordingly there must be changes made in these boards. • Sign boards with caution or alerts must be placed well in advance so that the drivers could be more alert with the journey. • The text content must be available in different languages to help the drivers. • Boards must be large and clear for better visibility.

		• Sign boards should be bright coloured so that it catches the drivers' sight. • The illustrations or the symbols used in the boards must be easily understandable.
NFR-2	**Security**	• The security system should be strong enough that no one can modify it other than the authority. • No one should be able to enter into the network to change, delete or manage the intimations or messages delivered through the sign boards.
NFR-3	**Reliability**	• There should not be any miscommunications or confusions regarding the messages displayed. • Maximum accuracy must be ensured. • All the information displayed must be checked periodically and updated if any changes are needed for error-free intimation.
NFR-4	**Performance**	• The efficiency and the accuracy of the information hence calculated should be maximum. • It should be ensured that minimum amount of energy, time and cost is required for the operation.
NFR-5	**Availability**	• These should be available anytime and everywhere that is 24/7. • Sign boards should be located in places which has direct view from the road. It should not present amidst bushes, trees, building etc • It should be properly monitored that no sign boards are damaged, repaired or malfunctioning at any time. • The sign boards should be made available only in places where they are required the most. Frequent availability of boards may lead to confusion and mistakes.
NFR-6	**Scalability**	• It should be easy to scale according to the requirement. • It should be in such a way that the network at any time of period should be ready to be expanded and implemented on a wider scale.