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

Date	03October 2022
Team ID	PNT2022TMID53640
Project Name	Project – Smart Solution for Railways
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 through Form ✓ Registration through Email
FR-2	**User Validation**	✓ Confirmation via Email/SMS ✓ Confirmation via OTP
FR-3	**Passenger Ticket Booking**	✓ Use the Application to book tickets for travelling via train
FR-4	**Booking Confirmation**	✓ Provide confirmation of booking through Email,SMS
FR-5	**Passenger Alerts**	✓ Reminder of journey ✓ Passenger Chart ✓ Updation incase of delay or cancellation of train due to various reasons
FR-6	**Passenger Emergency**	✓ Alert the respective authorities incase of unexpected emergencies

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	✓ The application is very simple to use and easily understandable to layman ✓ In hardware side,smart sensors detect problems in tracks,GPS detects live location of the train
NFR-2	**Security**	✓ User data is protected(software side-App) ✓ Smart sensors easily detect damage and reduce the probability of accidents
NFR-3	**Reliability**	✓ Traffic light and signalling is relatively simple ✓ Bug/errors in the application is resolved within a short period of time
NFR-4	**Performance**	✓ The GPS module provides accurate location of the train ✓ The UI of the ticket booking app is very much responsive and simple

NFR-5	Availability	✓ With Internet available all over the world these days,the application is easily available at all times
NFR-6	Scalability	✓ Application is very much scalable and many users can operate without crash especially during booking of tatkal tickets. ✓ As it is an IoT and cloud based system, it is more scalable