

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

Date	17 November 2022
Team ID	PNT2022TMID06068
Project Name	Smart solution for railways

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	<p>The application is very simple to use and easily understandable to layman</p> <p>In hardware side,smart sensors detect problems in tracks,GPS detects live location of the train</p>
NFR-2	Security	<p>User data is protected(software side-App)</p> <p>Smart sensors easily detect damage and reduce the probability of accidents</p>
NFR-3	Reliability	<p>Traffic light and signalling is relatively simple</p> <p>Bug/errors in the application is resolved within a short period of time</p>
NFR-4	Performance	<p>The GPS module provides accurate location of the train</p> <p>The UI of the ticket booking app is very much responsive and simple</p>
NFR-5	Availability	<p>With Internet available all over the world these days,the application is easily available at all times</p>

NFR-6	Scalability	<p>Application is very much scalable and many users can operate without crash especially during booking of tatkal tickets.</p> <p>As it is an IoT and cloud based system, it is more scalable</p>
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