

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

Date	15 October 2022
Team ID	PNT2022TMID30278
Project Name	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 Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP Confirmation via SMS
FR-3	User understanding	Based on the user's entered traveling detail valid ticket is generated with unique QR code.
FR-4	User action	The generated ticket with QR code is scanned before entering the platform.
FR-5	User testing	Passenger details and the ticket count will be checked and also the person count who are entering the platform.

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	It scans and verify the information and tally the count of persons entering and the number of tickets booked in order to avoid ticketless traveling.
NFR-2	<b>Security</b>	The data entered during the booking process will be stored in cloud so it is very secure and can be easily retrieved whenever needed.
NFR-3	<b>Reliability</b>	Only opens the door whenever the QR code is scanned or else the door will not get open and no one with invalid credentials could enter.
NFR-4	<b>Performance</b>	Though the details are get stored in the cloud the system crash will not affect the data. And there is only a single sensor is placed to measure the movements only within a certain region so the performance will be more efficient.
NFR-5	<b>Availability</b>	Any time available system. It is a one time setup that can be accessed when the passenger wish to enter the platform for their travel.
NFR-6	<b>Scalability</b>	The sensor and the scanner used in this framework are low budget functionalities . Hence they are highly scalable.