

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

Date	16 October 2022
Team ID	PNT2022TMID00940
Project Name	Smart Solutions 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	Passenger Registration	Registration through Application by providing the required Details
FR-2	Passenger Login	Login Using the Unique Username and corresponding Password
FR-3	Admin Login	Login Using the Admin Username and Password
FR-4	Passenger Books Ticket	Books the Ticket through app by providing the Details required
FR-5	Selecting the Seat	While booking passenger should select which seat is comfortable for him/her.
FR-6	QR Code Generation	A QR Code is generated following a successful booking
FR-7	Admin Cancel the Booking	If the information is inappropriate or the passenger is suspected to be an inappropriate person, admin can cancel his/her ticket.
FR-8	Tracking the location of Train	Passenger can view the current location of his/her Train.
FR-9	TTR Verifies the Passenger	TTR Scans the QR Code shown by the Passenger which gives the passenger Information that have to be verified

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	People with no high knowledge on using mobile can easily handle the application.

NFR-2	<b>Security</b>	Access permissions for the particular system information may only be changed by the system's data administrator.
NFR-3	<b>Reliability</b>	The database update process must roll back all related updates when any update fails.
NFR-4	<b>Performance</b>	The front-page load time must be no more than 2 seconds for users that access the website using an LTE mobile connection.
NFR-5	<b>Availability</b>	New module deployment mustn't impact front page, product pages, and check out pages availability and mustn't take longer than one hour. The rest of the pages that may experience problems must display a notification with a timer showing when the system is going to be up again.
NFR-6	<b>Scalability</b>	The website attendance limit must be scalable enough to support 10,000 users at a time.