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

Date	06 November 2022
Team ID	PNT2022TMID54425
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	User Registration	Registration through website Manual Registration
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Payment Options	Net Banking/ UPI/Credit card/Debit card Digital Wallet
FR-4	User Requirements	Smart Phone / Laptop Internet QR code Scanner
FR-5	User Feedback	Feedback via App/website Contact the authority via mail Direct Complaint
FR-6	Installation	Free installation via preferred app store. Directly use via website

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Easy to use the application and understand. Even illiterate people can use it easily.
NFR-2	**Security**	Multi-Factor authentication Strong password policy Having a strong encryption
NFR-3	**Reliability**	Periodic updates to fix any bugs in the application. Internet is required only the time of booking and the booking details and the QR code will be made offline the mobile phone by sending the details via mail and SMS and WhatsApp. Offline mode for important features for better reliability to use in place with no internet connectivity.
NFR-4	**Performance**	The user interface should user- friendly and the application can be hosted via light speed server to prevent the loading time for booking and payment for the user.

NFR-5	**Availability**	When the user enters the application, according to the constraints given by the user to move to other destination the availability of trains and database for all other trains has to be up to date with an availability of seats. The database has to be dynamically updated whenever the user reserve a ticket and the availability of seats to be reduced to total seats in coach. Website or application has to 24/7 available for booking with customer care support.
NFR-6	**Scalability**	The database should be able to handle a large volume of data especially during peak times. It should scale automatically to be cost effectively. It should be able to store the data in the server as well as the mirror server at the time of requirement.