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

Date	03 October 2022
Team ID	PNT2022TMID371118
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 Gmail ● Registration through LinkedIN
FR-2	**User Confirmation**	● Confirmation via Email ● Confirmation via OTP
FR-3	**Capturing type**	● It is captured in the use case ● Easy to capture
FR-4	**Specific Requirements**	● Database Requirements ● Functional Requirements ● System attributes
FR-5	**Functional requirements**	● **Train details**: customer may view the train timing at a date their name and number of tickets. ● **Reservation**:After checking the number of seats available the customer reserve the tickets. ● **Billing**:After reserving the required amount of tickets,customer paid the amount. ● **Cancellation**:If the customer want to cancel the ticket,then half of the amount paid by the customer will ● Be refund to him. ● **Performance Requirements**:It is available during all 24 hours.
FR-6	**Software System Attributes**	● Reliable ● Available ● Secure

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	● IOT technologies help railways successfully manage passenger safety,operational efficiency,and the passenger experience.
NFR-2	**Security**	● Smart sensors can be used to track important assets,manage passenger flow ,andenable predictive maintenance .
NFR-3	**Reliability**	● QR codes are very reliable,once a qr code is generated or printed it will not degenerate or loss the data in holds ● It is only if the image becomes corrupt the data can be lost
NFR-4	**Performance**	● This system helps in increasing the overall performance of the railway reservation functionality by shifting a large chunk of load online causing in less hassle in ticket booking,cancellation. ● This system is 22 hours live per day giving us greater availability time as comapred to that of 9 hours offline activity.
NFR-5	**Availability**	● The sytem should be available at all times ,meaning the user can access it using a web browser ,only restricted by the down time of the server on which the system runs. ● The availability and booking of ticket after preparation of the final chart,which is done 3 hours to 12 hours before the departure. ● The IR sensor is used to check the seat availability.
NFR-6	**Scalability**	● The code and supporting modules of the system will be well documented and easy to understand ● Online user documentation and help system requirements.