

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

Date	03 October 2022
Team ID	PNT2022TMID37118
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	<ul style="list-style-type: none">● Registration through Form● Registration through Gmail● Registration through LinkedIn
FR-2	User Confirmation	<ul style="list-style-type: none">● Confirmation via Email● Confirmation via OTP
FR-3	Capturing type	<ul style="list-style-type: none">● It is captured in the use case● Easy to capture
FR-4	Specific Requirements	<ul style="list-style-type: none">● Database Requirements● Functional Requirements● System attributes
FR-5	Functional requirements	<ul style="list-style-type: none">● 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	<ul style="list-style-type: none">● 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	<ul style="list-style-type: none">● IOT technologies help railways successfully manage passenger safety,operational efficiency,and the passenger experience.
NFR-2	Security	<ul style="list-style-type: none">● Smart sensors can be used to track important assets,manage passenger flow ,andenable predictive maintenance .
NFR-3	Reliability	<ul style="list-style-type: none">● 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	<ul style="list-style-type: none">● 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	<ul style="list-style-type: none">● 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	<ul style="list-style-type: none">● The code and supporting modules of the system will be well documented and easy to understand● Online user documentation and help system requirements.