

Project Design Phase-II
Solution Requirement (Functional & Non-Functional)

Date :	15 October 2022
Project Name :	Smart Solutions For Railways
Team ID :	PNT2022TMID08129
Maximum Marks :	4 Marks

SUBMITTED BY :

Team Leader : JEEVA S
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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 Gmail Registration through Mobile number
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP Confirmation via call

FR-3	Journey details	Provides From and To information and date of travel.
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FR-4	Select Trains	Select the appropriate trains among the list and also based on the seat availability.
FR-5	Book and add passenger	Fill the essential details such as name, contact details age, sex.
FR-6	Proceed to pay	Select an appropriate payment options among UPI, Internet banking, credit card, debit card.
FR-7	Ticket confirmation and Invoices	Ticket confirmation status is send to their registered email id.
FR-8	GPS	Tracking the live location and the status will be updated to the passengers.

FR-9	PIR	To get the information of detecting the motions in Railway Track.
FR-10	Database management	Entire Journey details will be stored in the server.
FR-11	E-catering	Foods are available for the registered passengers in an effective manner.
FR-12	Health monitoring	Monitor the health of the loco pilot and alert when any emergency.
FR-13	Ultrasonic Sensor	To calculate the distance between the Train and Station.

Non-functional Requirements :

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Availability of e-tickets with QR generation instead of physical one.
NFR-2	Security	It protects the details of a passenger against eavesdropping and denial of service attacks.
NFR-3	Reliability	It enables the user to securely use the app which provides maximum trust to the user.
NFR-4	Performance	No server down problems, many user can access at same the same time. Better performance is provided.

NFR-5	Availability	Accessibility through website or application anytime and from anywhere.
NFR-6	Scalability	No of users concurrently interacting with our web application with higher reliability.