

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

Date	16 October 2022
Project Name	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 Confirmation via SMS
FR-3	User understanding	Based on the user's entered traveling detail valid ticket is generated with unique QR code.
FR-4	User action	The generated QR code is scanned by the ticket checker there it shows whether the ticket is valid or not. And search for passenger information in cloud service for the verification.
FR-5	User location	Using a GPS the train location is tracked and it is shared in the website.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The QR code is scanned by the ticket collector and verified with their personal information stored in the Cloudant DB.
NFR-2	Security	The data entered during the booking process will be stored in cloud so it is very secure and can be easily retrieved whenever needed.
NFR-3	Reliability	It is more reliable where the live location is shared on the spot and is easy to verify the ticket for each passenger and also avoid the fraudulent in ticket booking.
NFR-4	Performance	Though the details are get stored in the cloud the system crash will not affect the data. The data can be retrieved from anywhere with a scanner. And the GPS states the exact location of the train.
NFR-5	Availability	Any time available system. The ticket can be verified by the ticket collector from anywhere.
NFR-6	Scalability	The scanner and the codes written are highly scalable where any implementation can be done anytime needed.