

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

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Project Name	Project - 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 Official website Registration through Form Registration through App
FR-2	User Confirmation	Confirmation via QR code Confirmation via message
FR-3	Ticket Verification	Ticket collector check the tickets using the QR code which is generated during ticket booking.
FR-4	TTE work load reduction	TTE can simply scan the QR code to identify the personal details and also to reduce the use of paper.
FR-5	Database Storage	All the booking details of the customer is stored in the database with unique ID which can retrieved back when the ticket collector scans the QR code.
FR-6	Train Tracking	The live status of the journey is updated in the web continuously

### Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The user can easily book the tickets at their own pace based on the availability of seats without waiting in the ticket counter.
NFR-2	<b>Security</b>	User's personal details are safely stored in the Cloud. QR code reduces the duplicate train tickets.
NFR-3	<b>Reliability</b>	As IBM cloud is used to store the information about the customers this product is highly reliable.
NFR-4	<b>Performance</b>	The Web UI provides smooth user experience and improves the performance of this solution.
NFR-5	<b>Availability</b>	App is readily available on play store for mobile phone users or user can access the website using web browser.
NFR-6	<b>Scalability</b>	This solution can be easily scaled up based on the customer demand.