

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

Date	16 October 2022
Team ID	PNT2022TMID50058
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	There is a need to apply registration intelligent computerised systems for the operation and control of complex environments.
FR-2	User Confirmation	Recent confirmation in sensors and condition monitoring technologies have led to continuous data collection and evaluation.
FR-3	Web Application	Application identify of faults proactively and elimination of necessary maintenance interventions.
FR-4	Configuration to Device	It collects configuration and analyses the device data to prevent breakdowns..
FR-5	Data Base	Sensor and scanning database
FR-6	Python	IBM IOT Platform

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Estimation of the remaining useful life of an asset to ascertain the probability of its mission accomplishment.
NFR-2	Security	Operation of railways is secured centrally-monitored and controlled through operations control systems.
NFR-3	Reliability	A reliable CMMS should be user-friendly, fast, reactive and flexible.
NFR-4	Performance	The digital railway performance is focussed mainly on digital signalling technology, which aims to enhance safety and speed up train movement in a congested network.
NFR-5	Availability	A journey planner available could recommend the fastest or most comfortable current trip allowing for road conditions to the station.
NFR-6	Scalability	Scalability and railway automation solutions are crucial to detect and signal whether line sections are

		clear or occupied.
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Hii