PROJECT DESIGN PHASE-II

TEAM ID	**PNT2022TMID40029**
PROJECT NAME	**SMART SOLUTIONS FOR RAILWAYS**

SOLUTION REQUIREMENTS (FUNCTIONAL & NON-FUNCTIONAL)

FUNCTIONAL REQUIREMENTS:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Passenger ticket booking	Booking through the online railway mobile app and website.
FR-2	Booking Confirmation	Booking Confirmation via Email Booking Confirmation via SMS
FR-3	Passenger objections and feedback	Through the online application, SMS, and email to the respective authority.
FR-4	Passenger schedule	Passenger can see their train timing through the mobile app
FR-5	Passenger Emergency	Passengers in an Emergency, in case of accidents, natural disasters, or theft during the journey can complain through online applications, emergency calls, SMS, and email.

NON-FUNCTIONAL REQUIREMENTS:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Within periodic maintenance, we can detect cracks in the railway track. which will be highly usable on remote railway tracks.
NFR-2	**Security**	Accidents and property damage can be prevented with the help of our smart sensors which immediately send the fault to the pilot and administration.
NFR-3	**Reliability**	Traffic lights and signalling can be made accurately with the help of sensors. so it is more reliable.
NFR-4	**Performance**	Communication plays a vital role in transferring the crack-detected signal to the responsible authority so that they can take appropriate measures within a short span.
NFR-5	**Availability**	Our idea is to make the crack alert to all the trains passing through that fault-prone area.
NFR-6	**Scalability**	Our project is based on IoT & cloud, which makes the pilot and authority updated every single sec. Adhoc is easy to handle.