Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID35329
Project Name	Project - Smart Solutions for Railways
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problems to be solved)	● Improved travel experience. ● Assured passenger safety and Increased security. ● Mitigate the effects of delays and avoid last minute confusion due to cancellation of trains. ● Use of latest technology instead of cumbersome traditional methods such as printed tickets.
2.	Idea / Solution description	● A Web page designed for the public to book tickets based on availability and convenience. ● The portal generates a QR code on booking and is used for verification while boarding. It basically serves as an E-ticket. ● A GPS module is used in the train to track it and update the live status of the journey continuously through the App. ● All the booking details of the customers will be stored in the database with a unique ID and retrieved back when the Ticket Collector scans the QR Code.
3.	Novelty / Uniqueness	● Using data from the GPS to analyze delays and optimize arrival and departure timings of trains. ● Providing a provision for ordering food via the app. ● Providing an interface to book auto/cabs while nearing the destination. ● Checking the passenger's location before starting at each station to make sure he/she is inside the train. ● Suggesting alternative travel options incase of cancellation of trains. ● Sending reminders to each passenger regarding their journey. ● Smoke detectors to detect and hence prevent massive fires.

4.	Social Impact / Customer Satisfaction	● Passengers will have a single platform for all the travel related requirements. ● Improved safety and security. ● Improved convenience and passenger comfort while travelling.
5.	Business Model (Revenue Model)	● Expand the revenue by partnering with food services and travel agencies. ● Additional features, improved travel experiences, security etc. will attract more customers.
6.	Scalability of the Solution	● Integrating all the features in a single webpage is possible and easy to implement. ● The QR code scanner and GPS module is practical and the set up is simple.