Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID14902
Project Name	Smart Solution for Railways
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Lack of a single service using which we could book and verify tickets, ordering food from restaurants, tracking trains precisely.
2.	Idea / Solution description	Our solution is to build an one-stop web application that has the following features: ● Book train tickets ● QR code based verification of tickets ● Track live location of trains ● Food ordering from restaurants ● Providing bounties for trash segregation inside trains and stations ● Alerting passengers before destination station
3.	Novelty / Uniqueness	Our solution is unique because of the following reasons: ● Verification of tickets is done using dynamic QR code ● Provision of bounties for trash segregation ● One-stop solution for all of the services mentioned in solution description
4.	Social Impact / Customer Satisfaction	Customers would definitely be satisfied with our solution as it: ● is hassle free and paperless train ticket booking ● enables faster verification of tickets ● makes high quality food available inside trains ● gets precise or approximate location of trains based on customer's requirement ● provides a cleaner railways

5.	Business Model (Revenue Model)	**1.Key Partners** Users who use our app for booking tickets. Indian Railways. Food providers(Hotels). **2.Key Activities** Our app is for booking train tickets faster and easier with QR Code. Our app provides Live tracking of trains .

		Our app alerts passengers before destination station **3.Customer Relationships** Customers can book tickets using online payment like Gpay/Paytm. Customers can book tickets for their family with one click. Customers can order food from any hotel near to arrival station. Customers can verify their ticket with the help of QR Code. **4.Cost Structure** Actual ticket cost will be displayed on the user account for their journey. For food users can pay along with tickets.
6.	Scalability of the Solution	Proposed solution would have the above mentioned features in the initial version. As we gain many users, the servers will be scaled in the cloud service to accommodate more users. Also we could include more features as we gain many users. Some of them could be: ● Improved process of generation and verification of QR ● On demand toilet cleaning services inside trains ● Automatic ticket checking at doors etc., Our solution is viable as we can use a GPS module in all trains and connect them to a cloud service so that live location tracking is very easy. Availability of foods can be made possible by integrating popular food ordering services like Swiggy, Zomato etc.,