Project Design Phase-I
Proposed Solution Template

Date	23 September 2022
Team ID	PNT2022TMID17447
Project Name	Traffic and Capacity Analytics for Major Ports

Proposed Solution Template:

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

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	To create a port management system for ports to reduce congestion on rail corridors and improve port connectivity.
2.	Idea / Solution description	Data analytics is implemented to analyse the rail traffic and port traffic. By deeply understanding the dataset, identifying pattern, relationships and connection using Data Analysis with python libraries using IBM Cognos analytics to build visualizations of traffic congestion and to create meaningful dashboards. The final dynamic dashboard helps rail operators by providing detailed traffic data and routes, easy categorization, capacity reports satisfying customer needs and meet variation in traffic data.
3.	Novelty / Uniqueness	This solution involves analysing the traffic and determining the routes. It helps the people managing the port traffic such that it is helpful to avoid traffic congestion. Also it involves usage of IBM Cognos analytics tool for visualisation rather than using python libraries like matplotlib.
4.	Social Impact / Customer Satisfaction	Adequate resources will be provided. Consumers using port – rail connectivity can be assured for their product transportation will be done on time.
5.	Business Model (Revenue Model)	• Businesses using railway ports can easily track.

		• Government can use data analytics dashboard to ensure less traffic on the ports.
6.	Scalability of the Solution	This solution is applicable for all the ports located in India, from smaller to bigger ports. It can also analyse wide range of datasets and different types of visualisations can be done.