

# PROFESSIONAL READINESS LAB

## DOMAIN- IOT

Date	23 November 2022
Team id	PNT2022TMID08269
Project Name	Smart Solutions for Railways

### ABSTARCT:

Next to airways, trains are one of the fastest modes of transportation. Being the preferred choice among vast majority of middle class and impoverished people, it attracts for its amenities. But, passengers in trains are increasingly at risk from thefts and accidents. The most common forms of these hazards include chain snatching, derailment, and fire accidents. People no longer want to travel in trains alone or at night because they believe they are unsafe. The rail accidents are documented by the National Crime Bureau. As a result, the federal government has implemented new security measures that mandate 2 to 5 RPF in train at all times. It can be used as starting point, however, it falls short in certain situations. We give a solution to address these problems by providing an application which the user can access after booking. With a single click, this app addresses the most urgent train issues, such as fire incidents, the prevalence of unreserved passengers in reserved compartments, and chain snatching. Hereby, a text message will be sent to the TC and RPF as an alert notification. Our project uses the Node-Red service, app development, and IBM cloud platform to store passenger data.

## **PROJECT OBJECTIVES:**

- The SMART SOLUTION FOR RAILWAY project aims to improve the facility to use the easiest way to reserve a ticket through online with the help of qr code scanner.
- During this project we work on IOT devices and we can gain knowledge about how to work with Watson IOT Platform.
- Connecting and exchanging the sensor data.
- Also IBM Cloudant DB is also used.
- Scan the QR code and retrieve the user details about the reservation of the ticket.
- Generating the user details in the database connecting to the xampp server for the web page.
- Storing the data in the Cloudant DB.
- With the QR code we can generate the required data.

## **WEB APPLICATION:**

- Using the web application by writing a code in html css and js the user details can be created.
- Once the details are created it gets stored in the database.
- Once the user clicks the submit button, the QR code is generated and the unique Id is generated along with the details with the unique id is stored in the Cloudant DB.
- In python code, a ticket collector can scan the QR code and the unique is checked along with the id the passenger provided to check the details of the user.
- Also the live location of the train is tracked by using GPS tracker.