

Project Design Phase-I

Solution Architecture

Date	04 November 2022
Team ID	PNT2022TMID25722
Project Name	Project - SMART SOLUTIONS FOR RAILWAYS

Solution Architecture:

- 1.If a ticket is need to be booked the passenger can use this qr code method to book their ticket. The python code is written regarding the passengers details to be collected from them. The details are safely stored in a database.
- 2.Once the details are given the passenger will receive a qr code which is been generated. The qr code is shown to the TTR and he will verify the details of the passenger.
3. After booking the ticket the passenger will get the sms to their email for the successful confirmation of the ticket and the qr code is generated.
- 4.Also not only qr code is generated using ibm Cloud we are fixing the latitude and longitude of the map where the location of the train is tracked easily by using the GPS tracker.
- 5.The Passenger can be able to track the location of the train and can be cautious which avoids missing of train because the trains location is easily tracked by using the GPS tracker and the latitude and longitude are used for locating the place.
- 6.The Iot devices are used from iot platform which connects to the cloud services that provide the storage of details given by the passenger and there will be a unique id issued to each and every passenger in order to avoid collision.

Example - Solution Architecture Diagram:

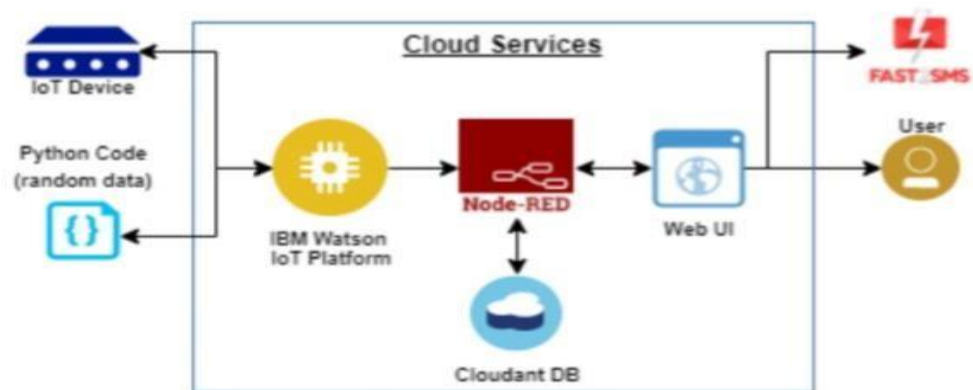


Figure 1: Architecture and data flow of *the smart solutions for railways*