Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	**06 November 2022**
Team ID	**PNT2022TMID11527**
Project Name	**Smart Solution for Railways**

Technical Architecture:

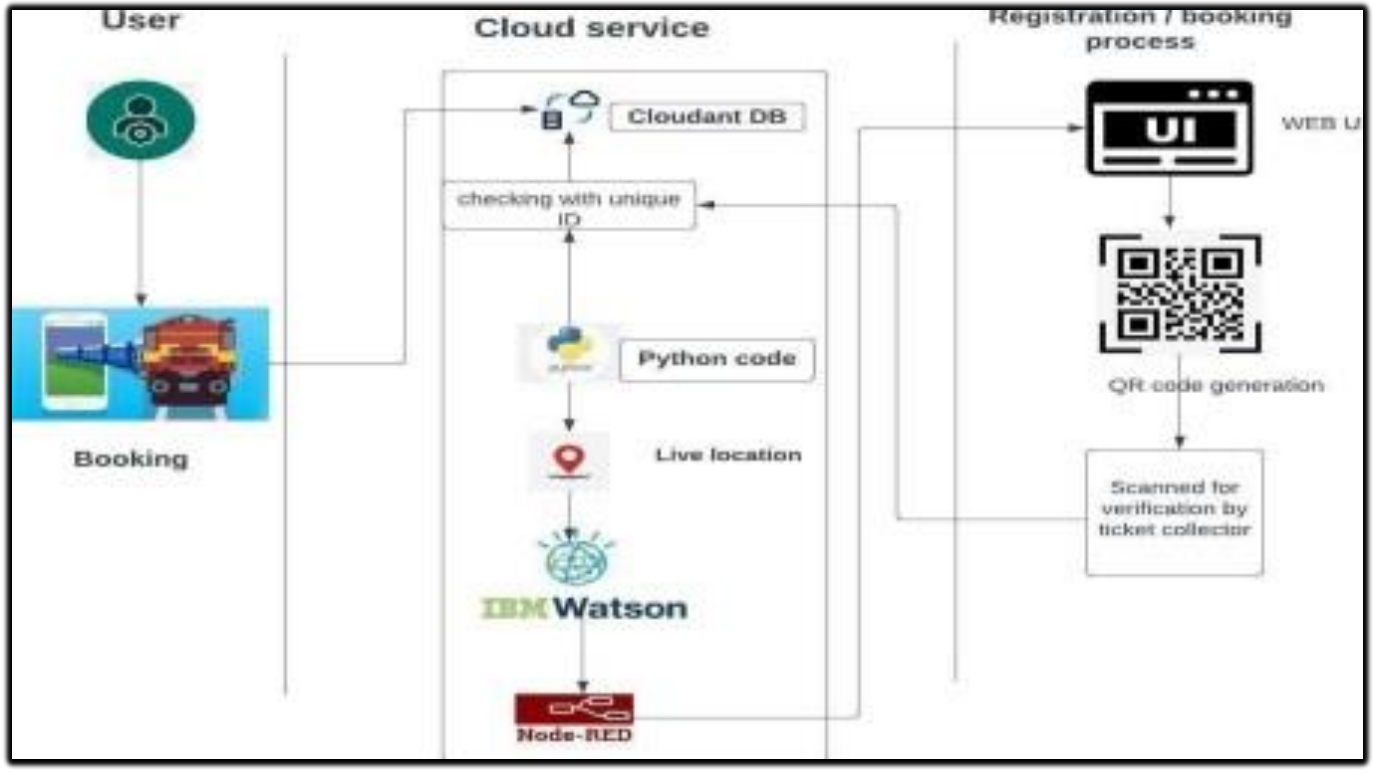

Table 1 : Components & Technologies

S.No	Component	Description	Technology
1.	Web UI	User can login and book their ticket throughthe website based on the availability of the seats.	HTML, CSS, JavaScript
2.	Cloud Services	Requirements filled by the passenger is stored in the cloud database.	Python
3.	GPS Tracking	Live Location details shared through the code to share the location in the website	IBM Watson Service
4.	External API-1	Used for rail schedule, ticketing and travel documents generation, cancellation.	Sabre API
5.	External API-2	Used for combining carriers and ticket types, Multilanguage & currency support	Trainline B2B API
6.	Data Processing	Ticket is verified with the unique ID generatedwith the cloudland DB	Python, IBM cloud

Table 2 : Application Characteristics

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	CSS, Backend framework,	Python, IBM cloudant DB
2.	Security Implementations	Data entered are encrypted, ContinuousLocation Tracking	Python, Cloud service
3.	Scalable Architecture	The scanner and the codes written are highlyscalable where any implementation can be done anytime needed	Python
4.	Availability	Any time available system. The ticket can be verified by the ticket collector from anywhere.	IBM Load Balancer
5.	Performance	Though the details are get stored in the cloud the system crash will not affect the data. The data can be retrieved from anywhere with a scanner. And the GPS states the exact location of thetrain.	Distributed Services, GPS Tracker