

Project Design Phase-II Technology Stack (Architecture & Stack)

Team ID	PNT2022TMID53688
Project Name	Project – Smart Solutions For Railways
Maximum Marks	4 Marks

Technical Architecture:

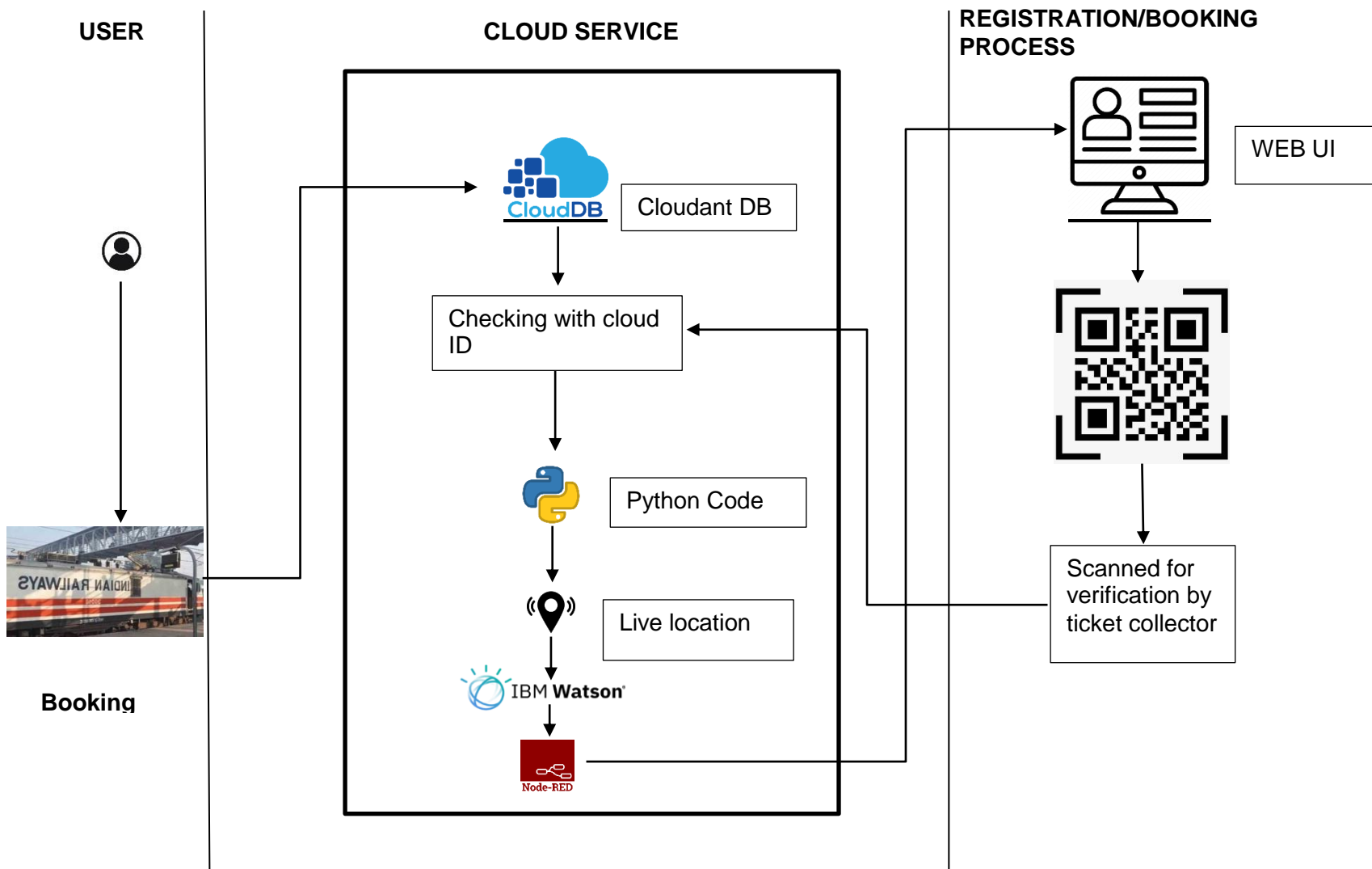


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User Interact with a Web UI or Mobile Application.	HTML, SASS, JavaScript/React etc.,
2.	Application Logic-1	Tickets are Booked based on seat availability and timing	Python coding
3.	Application Logic-2	Cloud Service	IBM Watson STT service
4.	Application Logic-3	Node red and web interface	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	NoSql database/Local Storage
6.	Cloud Database	Database Service on Cloud	IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local File system
8.	External API-1	Security purpose and to access system	Passenger detail are checked through Scanning.
9.	External API-2	To access the System	Unique specific ID generated while booking ticket, etc.,
10.	Machine Learning Model	To provide Data	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Availability of seats, Tracking the current location of the train	Technology of Opensource framework
2.	Security Implementations	Passengers detail, QR code and IBM cloud and Watson account.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Upgradable	IBM cloud software
4.	Availability	The app or web UI and the service is available all the time to users .	Web UI is hosted through IBM cloud works or other services.
5.	Performance	The System continue update the data	Mobile App and Web UI

