

Project Design Phase – II

Technology Architecture

Date	29 October 2022
Team ID	PNT2022TMID33222
Project Name	Smart Solutions for Railways
Marks	4 Marks

Technical Architecture:

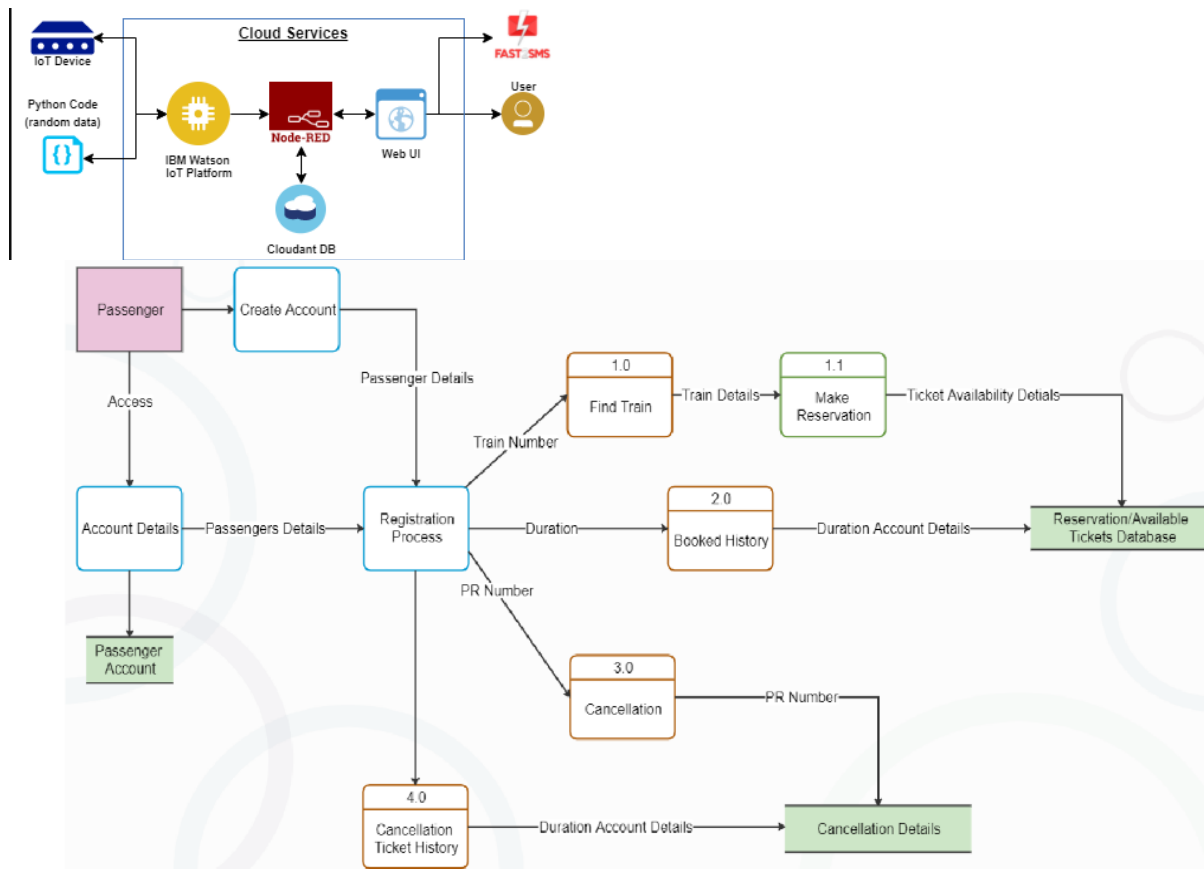


Table 1: Components & Technologies:

S.no	Component	Description	Technology
1	User Interface	How user interacts with application. e.g. Web UI, Mobile app, Chatbot etc.,	MIT App Inventor, React
2	Application Logic-1	Logic for a process in the application	Python
3	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4	Application Logic-3	Logic for a process in the application	Node Red
5	Database	Data Type, Configuration etc.	
6	Cloud Database	Database service on cloud	IBM Cloudant
7	File Storage	Reservation Details, Live Status of train	IBM Block Storage

Table 2: Application Characteristics:

S.no	Characteristics	Description	Technology
1	Open-Source frameworks	The Open-source frameworks used.	Python, Node Red, MIT App inventor.
2	Security Implementation	The security/Access controls implemented, use of firewalls	Password encryption-AES, Password Hash-SHA-512, bcrypt
3	Scalable architecture	Justification about the scalability of architecture	3-tier
4	Availability	Justification about the availability of application	IBM Cloudant
5	Performance	Design consideration for the performance of the application	IBM Cloudant