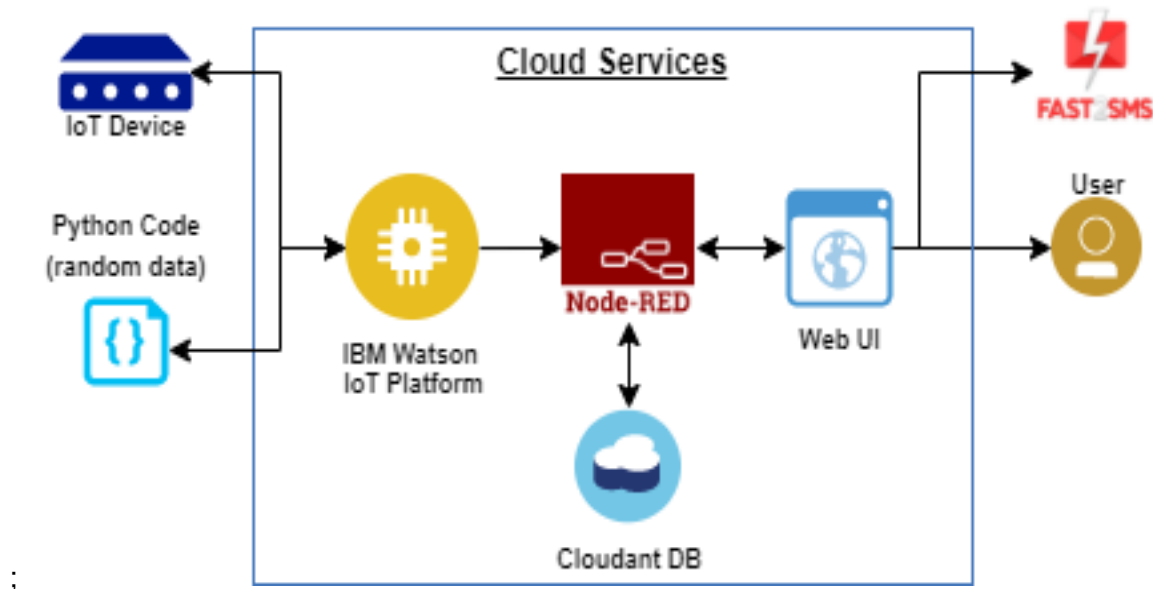


Project Design Phase-II Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID37886
8/Project Name	Smart solution Railways
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



Technical Architecture

Table-1 : Components & Technologies:

	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, helpline number	HTML, CSS, java script ,SMS for web UI
2.	Application Logic-1	Logic for a process in the application	Python script website application
3.	Database	Data Type, Configurations etc.	MySQL, NoSQL ,unique code generation, location co-ordination details
4.	Cloud Database	Database Service on Cloud	Create IBM Watson IoT Platform
5.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
6.	External API-1	Purpose of External API used in the application	Node-RED key API
7.	External API-2	Purpose of External API used in the application	Aadhar API, to identify ,verify passenger information
8.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, QR code-generation, scanning and validation
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework: Python , HTML Java script , Angular JS and Node
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	increase database capacity and combine other features into one web application such as helpline ,register compliant and feedback
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used cookies used to store user data for process request faster
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Faster responsive servers is required since number of request per sec is higher In peak hours cookies are used to store user data for quick process/