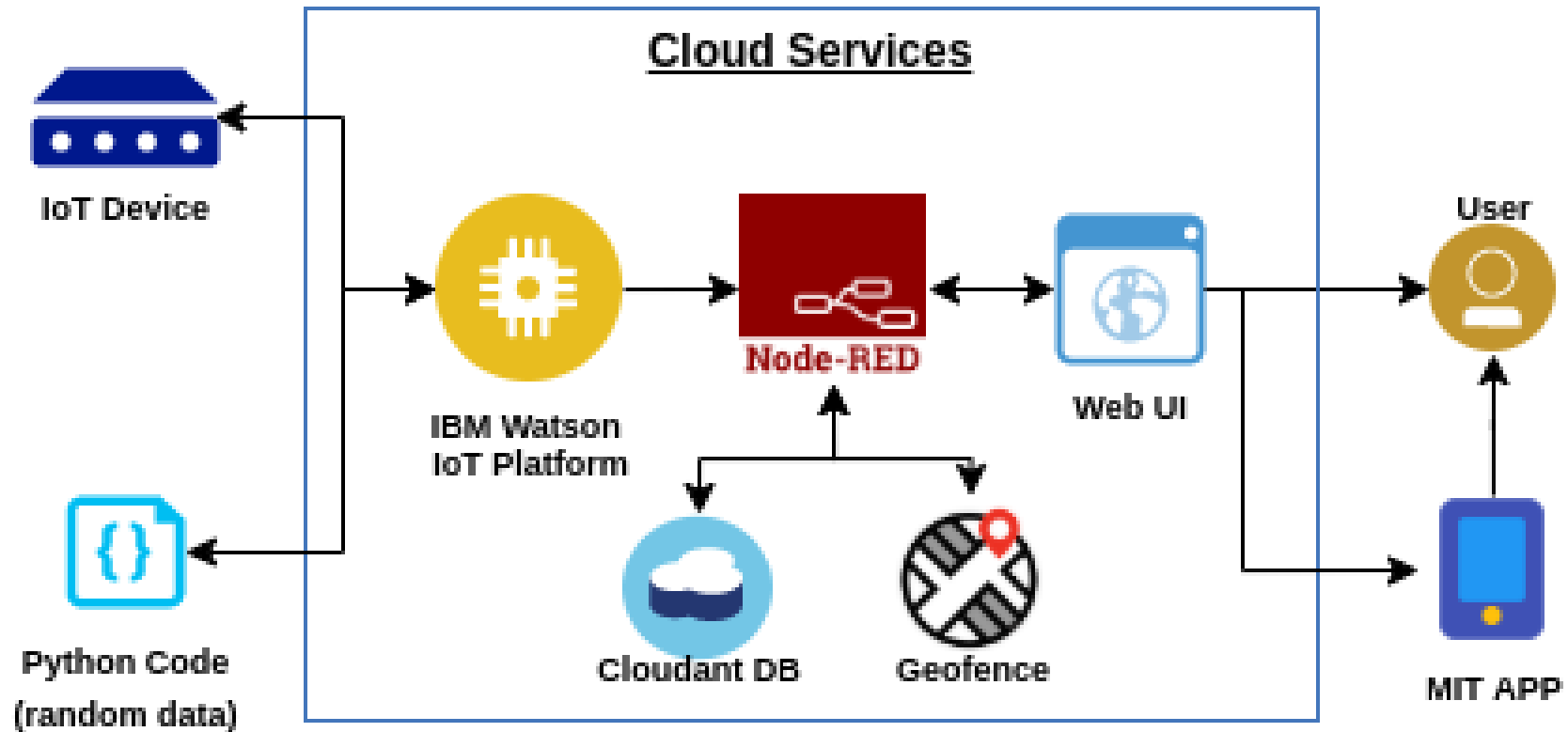


**Project Design Phase-II**  
**Technology Stack (Architecture & Stack)**

Date	21 October 2022
Team ID	PNT2022TMID37118
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	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript ,React Js
2.	Application Logic-1	Logic for a process in the application	Python,MIT app
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	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant
7.	File Storage	File storage requirements	IBM Block Storage
8.	External API-1	Purpose of External API used in the application	Scanning Qr code
9.	External API-2	Purpose of External API used in the application	Online payment
10.	Machine Learning Model	Purpose of Machine Learning Model	Recommendation system
11.	Infrastructure (Server / Cloud)	Application Deployment on Cloud local server configuration	Cloud Foundry, Kubernetes

**Table-2: Application Characteristics:**

<b>S.No</b>	<b>Characteristics</b>	<b>Description</b>	<b>Technology</b>
1.	Open-Source Frameworks	List the open-source frameworks used	React Js
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Encryptions, IAM Controls, OWASP .
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	3-tier architecture
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Fault tolerant systems
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Successfully manage passenger safety,operational efficiency,passenger experience.