

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

Date	03 October 2022
Team ID	PNT2022TMID11580
Project Name	Project – smart solution for railways using IoT

Technical Architecture:

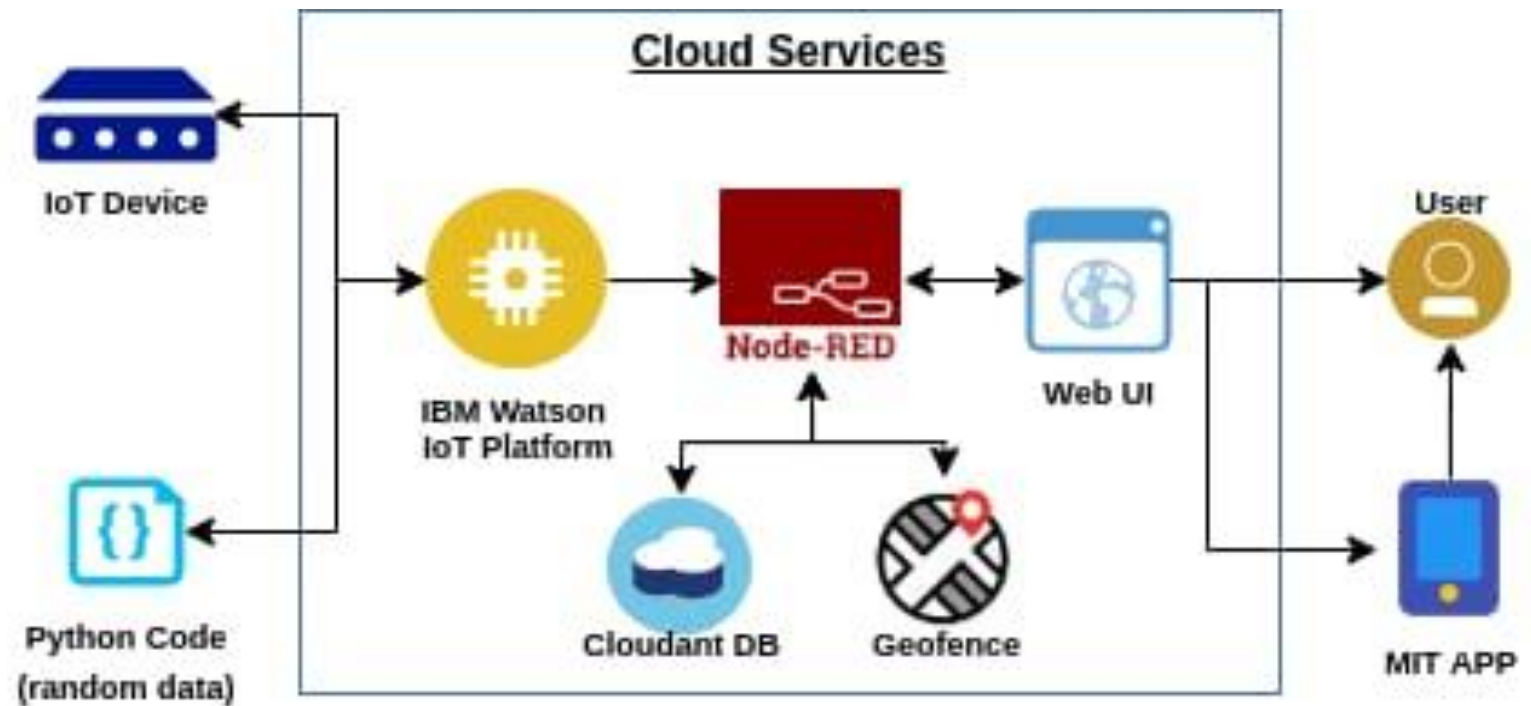


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application	JavaScript
2.	Application Logic-1	Register and login page	Javascript
3.	Application Logic-2	Home page	HTML.CSS
4.	Application Logic-3	Personal data,Required input and output,Suggestion page	HTML,CSS
5.	Database	Data Type, Configurations etc.	MySQL etc.
6.	Cloud Database	Database Service on Cloud	IBM Cloudant etc.
7.	File Storage	File storage requirements	Local Filesystem
8.	External API-1	Purpose of External API used in the application	IBM API connect
9.	External API-2	Purpose of External API used in the application	Aadhar API
10.	Machine Learning Model	Purpose of Machine Learning Model	-
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local server configuration: Local system Cloud server configuration: IBM Watson

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python libraries,Tensorflow
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Email confirmation
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Python libraries
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	IBM Watson
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Python Flask