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

Date	12 October 2022
Team ID	PNT2022TMID35688
Project Name	Project - IOT Based Real-time River Water Quality Monitoring and Control System

Technical Architecture:

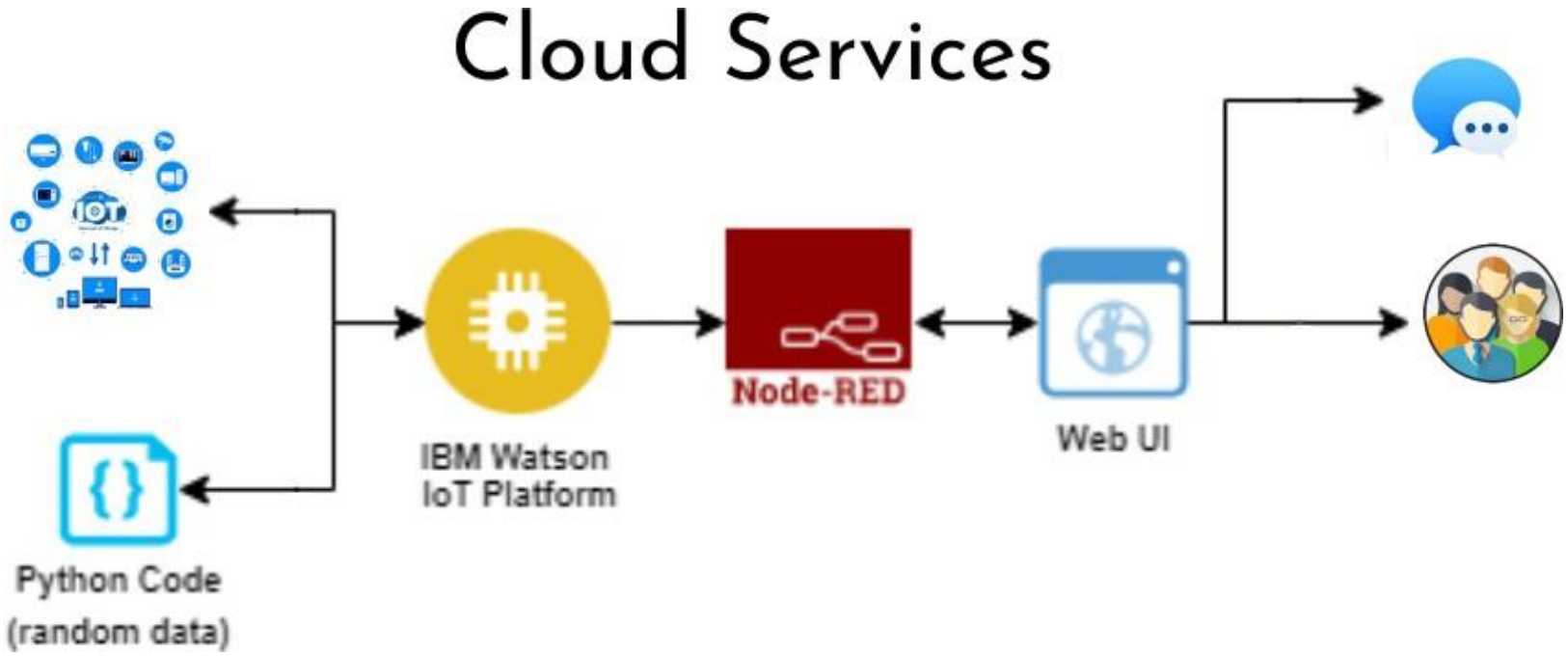

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with the web application through this particular technology	Node Red , MIT app inverter etc.
2.	Application Logic-1	To develop a script for temperature and humidity	Python
3.	Application Logic-2	In order to access the cloud platform	IBM Watson service
4.	Application Logic-3	To build conversational interface with any application and devices	IBM Watson Assistant
5.	Cloud Database	To store the data in the cloud service	IBM DB2, IBM Cloudant etc.
6.	External API-1	To monitor the temperature and humidity in the app	IBM Weather API, etc.
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, IBM cloud , etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Security Implementations	In order to avoid the third party access to the application .	Encryption ,One time password protection etc
2.	Availability	Using of available servers and technology	Cloud servers eg: IBM cloud and services
3.	Performance	Different sensors are used to represent multiple performance of the system	Using of sensor eg : pH sensor and turbidity sensor