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

Date	22 October 2022
Team ID	PNT2022TMID49260
Project Name	Hazardous area monitoring for industrial power plant powered by IoT
Maximum Marks	4 Marks

Technical Architecture:

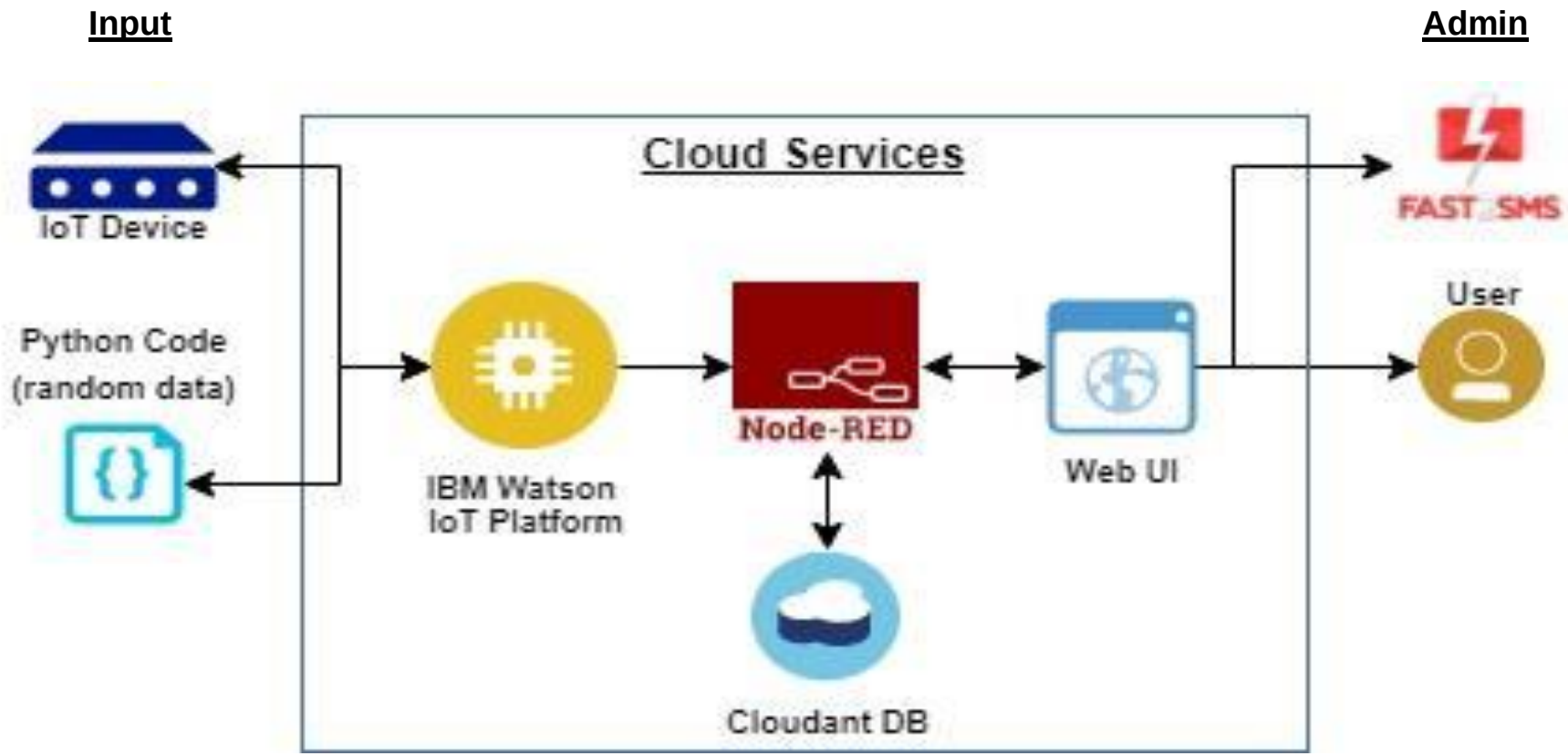

Table-1 : Components & Technologies:

S.No	Components	Description	Technology
1.	IoT devices(Beacon sensor)	The temperature and humidity of the hazardous area will be sensed.	Bluetooth LowPAN Energy(BLE) module
2.	Application Logic-1	The random data is send to the IBM Watson IoT platform	Python
3.	API(Application Programming Interface)	Node-Red	Java Script
4.	User Interface(UI)	User can interact with the content or software running on a remote server through web browser	Web UI
5.	Database	Integer data type	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM Cloudant.
7.	Fast 2 SMS	Platform for sending bulk flash SMS and multimedia messages.	QR code.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Node-Red , Python Script.	Java script & python
2.	Security Implementations	Make sure that data transfer is secured.	Firewall
3.	Scalable Architecture	IPv6 devices can be used	IPv6 protocol stack
4.	Availability	Real time applications	-
5.	Performance	We can send huge amount of data and wireless connectivity.	IoT