Project Design Phase-II

Technology Architecture

Date	11 November 2022
Team ID	PNT2022TMID43711
Project Name	Hazardous area monitoring for industrial power plant powered by IoT
Maximum Marks	4 Marks

Technical Architecture:

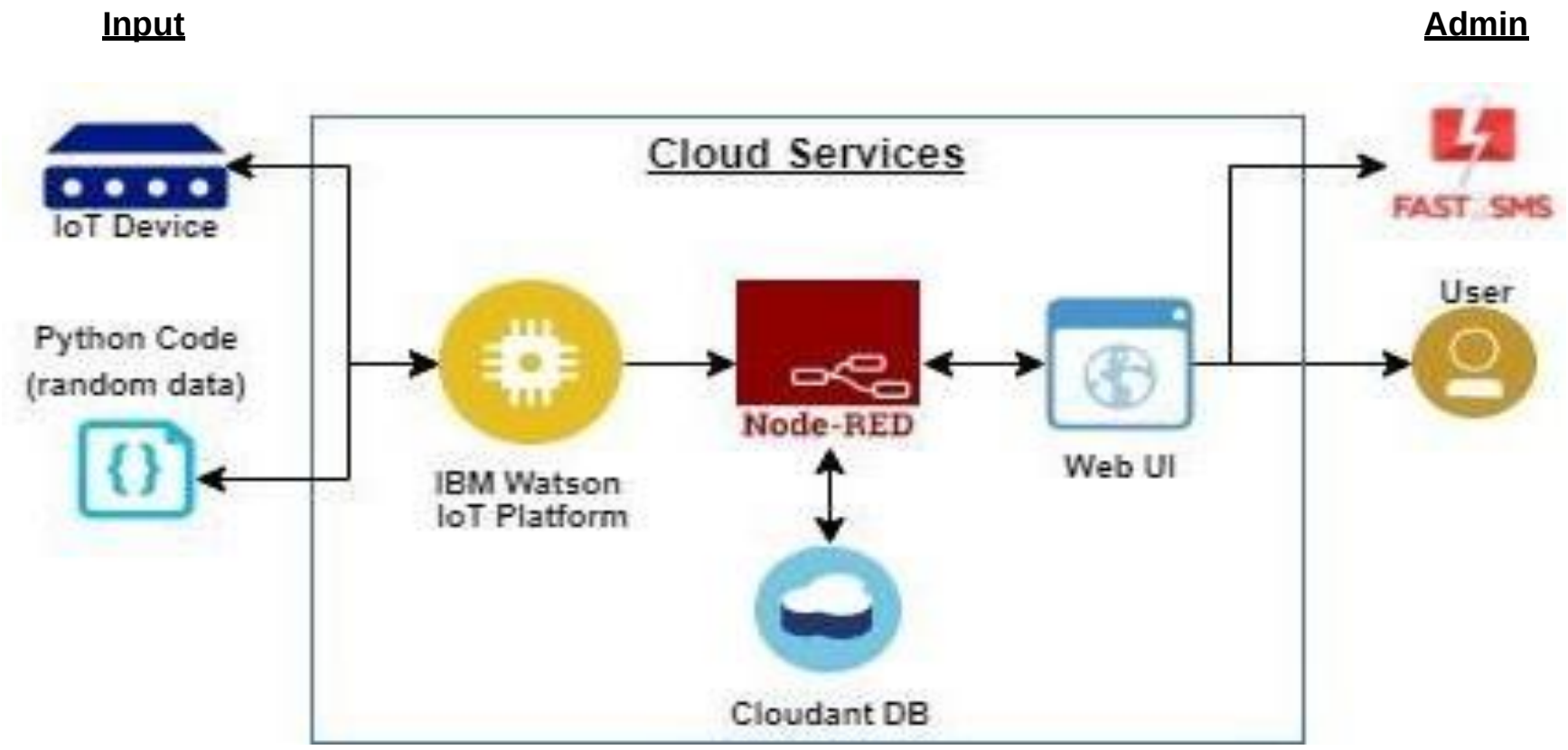

Table-1 : Components & Technologies:

S. No	Components	Description	Technology
1.	IoT devices (Beacon sensor)	The temperature and humidity of the hazardous area will be sensed.	Bluetooth Low PAN 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