

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

Date	28 October 2022
Team ID	PNT2022TMID01100
Project Name	Project – Signs with smart connectivity for better safety.
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Reference: <https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/>

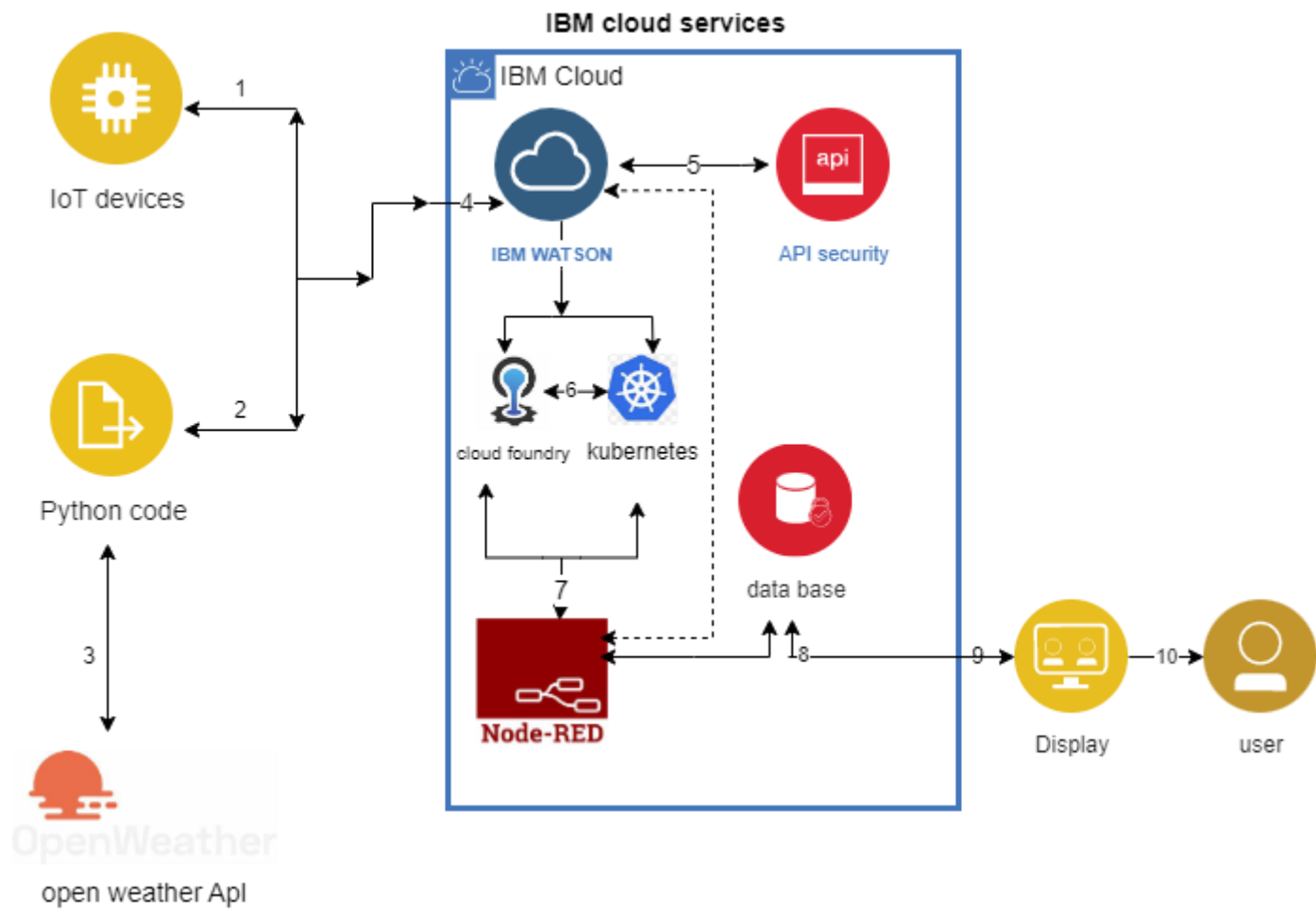


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
9.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Logic for a process in the application	Java / Python
7.	Application Logic-2	Logic for a process in the application	Node-RED services
5.	Application Logic-3	API security	IBM data power gateway
4.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
8.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
3.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
6.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.
1.	IoT component	What type of components used	Sensors, actuators connected with WIFI module

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Security Implementations	List all the security / access controls implemented, use of firewalls etc. Using firewall no third party persons cant login without the proper credentials.	Firewall
2.	Scalable Architecture	It is very comfortable and easy to expand the product at any time and anywhere. Even we can made changes or add to the product.	IOT devices, proper internet connection
3.	Availability	It is made available to 24/7 as long the device connected to internet and to the cloud.	Internet connection, IBM cloud services(Watson).

S.No	Characteristics	Description	Technology
4.	Performance	It supports to many people. Cloud is having capability to have different clusters and able to maintain the service requests from users.	IBM cloud , Kubernetes services.

References:

<https://c4model.com/>

<https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/>

<https://www.ibm.com/cloud/architecture>

<https://aws.amazon.com/architecture>

<https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d>