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

Date	19 October 2022
Team ID	PNT2022TMID02365
Project Name	Project - Signs with smart connectivity for better road s
Maximum Marks	4 Marks

TECHNICAL ARCHITECTURE:

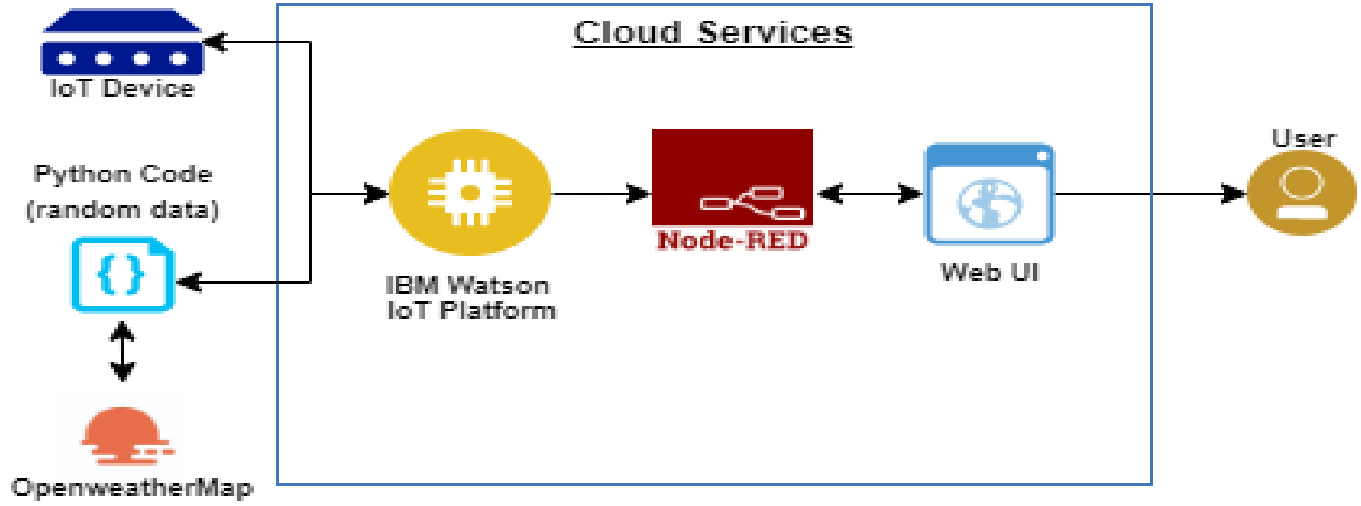

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	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	To define steps and procedures for various operations performed in the process	Python script
3.	Application Logic-2	To add and manage iot devices, control access to **IoT** service, and monitor the usage.	IBM WATSON IoT Platform
4.	Application Logic-3	To provide a connection between API , cloud, hardware,etc.	Node-RED
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	OpenWeatherMap API is used to obtain weather and temperature details	HTTP
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Cloud Foundry

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Used for weather forcasting	Wecast
2.	Security Implementations	It monitors and filters incoming and outgoing network traffic for security.	Firewalls, etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	IoT, internet.
4.	Availability	The service of the product will be available 24/7	APIs,cloud,etc.

S.No	Characteristics	Description	Technology
5.	Performance	It is a metric that measures the throughput of a system.	Request handling

References:

https://c4model.com/

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

https://openweathermap.org/api