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

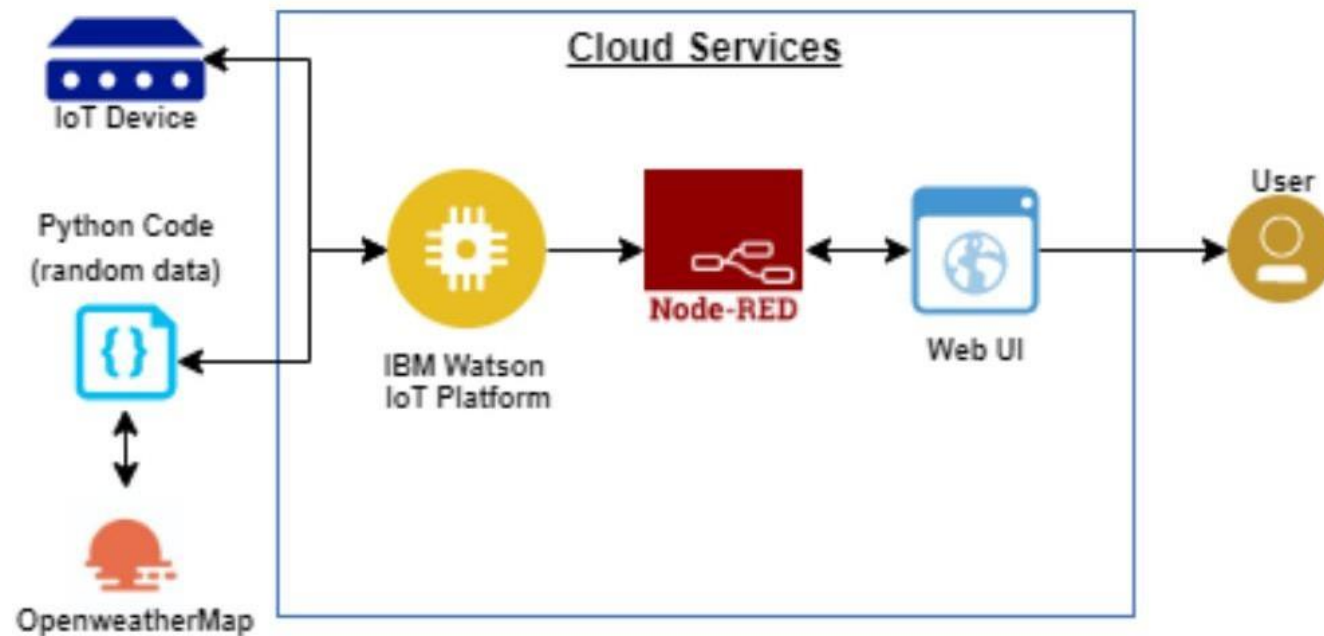| Date	04 October 2022
Team ID	PNT2022TMID29129
Project Name	Project - Signs with Smart Connectivity For Better Road Safety
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI	HTML, CSS, JavaScript
2.	Application Logic-1	Used to build powerful and intelligent IoT systems with intuitive interfaces.	Python
3.	Application Logic-2	This data analytics processor uses natural language processing to store massive amounts of data.	IBM Watson
4.	Application Logic-3	A tool for flow-based programming that connects hardware, APIs, and web services.	IBM Node RED
5.	Cloud Database	Gives customers access to solutions that enable better levels of compliance, security, and administration with tested architectural patterns and techniques for quick delivery of mission-critical workloads.	IBM Cloud
6.	External API-1	Provides a wide range of weather data, such as the current weather, the forecast, and historical records.	Open Weather API

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Tinker Cad, Node RED, TBM Watson, Miro, PyCharm	Firewall, Firebase, cyber resiliency
2.	Security Implementations	Powerful security system , no data access, hackers cannot access	IoT, internet
3.	Scalable Architecture	Easy to extend the network with the help of the network's bandwidth	IBM Cloud
4.	Availability	24 x 7	IBM Cloud
5.	Performance	Helps a large number of users to use this technology	IBM Cloud