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

Date	03 October 2022
Team ID	PNT2022TMID52873
Project Name	Project -Signs with Smart Connectivity for Better Road Safety
Maximum Marks	4 Marks

Technical Architecture:

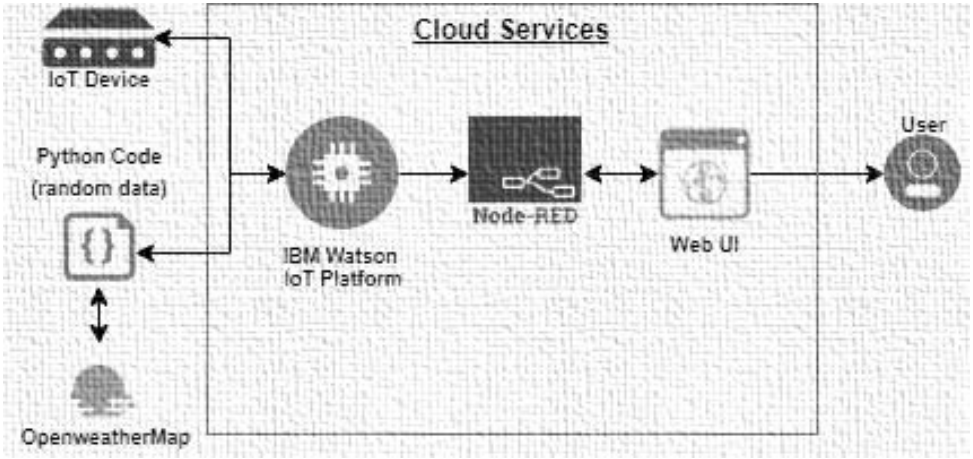

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App.	HTML, CSS, JavaScript / Angular Js
2.	Application Logic-1	Logic for a process in the application	Python

3.	Application Logic-2	Logic for a process in the application	IBM Watson IoT Platform
4.	Application Logic-3	Logic for a process in the application	NODE-RED service
5.	Application Logic-4	Logic for a process in the application	Open Weather Map
6.	Database	Data Type, Configurations etc.	MySQL
7.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant
8.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
9.	External API-1	Purpose of External API used in the application	IBM Weather API,MQTT
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes

Table-2: Application Characteristics:

S .No	Characteristics	Description	Technology
1.	Open-Source Frameworks	There are no open-source framework in this application.	Python,NODE-RED
2.	Security Implementations	List all the security / access controls implemented, use of firewalls	Encryption
3.	Scalable Architecture	User are provided with traffic symbol online .Give awareness to road rules.	IBM cloud
4.	Availability	Controller recommendation ,Symbol ,Road rules , accident provided zones are available in applications.	IBM Waston Assistant
5.	Performance	Artificial Intelligence (AI) such as Machine Learning (ML) algorithms are very helpful to improve the performance of the overall road safety management.	AI such as Machine learning