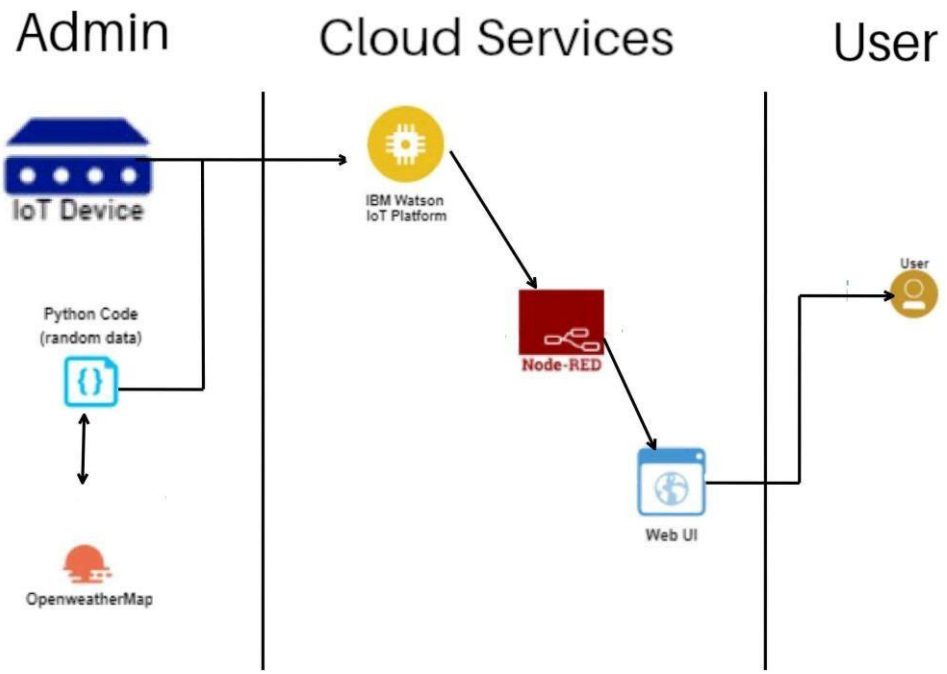
Project Design Phase II
Technology Stack (Architecture & Stack)

Date	2 November 2022
Team ID	PNT2022TMID54258
Project Name	Project-Signs with Smart Connectivity for Better Road Safety.
Maximum Marks	4 Marks

Technical Structure:



GUIDELINES:

- Smart Connectivity based signboards are used to replace static signboards.
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- Based on situations, like high traffic, construction or branch on the road etc the diversion signs are changed.
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- Sign boards in the vicinity of schools, hospitals, restaurants etc have signs displayed accordingly.
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- Speed limitations can be sent through a web app, which gets weather conditions from weather API and changed in the signboards.
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- Many different operation can be updated like finding the number of passengers in a vehicle, helps in finding stolen vehicles easily.

Table-1: Components & Technologies

S.NO	Component	Description	Technology
1	User Interface	In what way the user interacts with the application, in this case LED	Python
2	Application Logic -2	A logic for the process in the application	IBM Watson STT Service
3	Application Logic-3	A logic for the process application	IBM Watson Assistent
4	Cloud Database	Cloud which has database service	IBM DB2, IBM Cloudant
5	External API-1	Purpose of external API in the application	IBM Weather API

Table-2: Application Characteristics

S.NO	Characteristics	Description	Technology
1	Security Implementations	A very strong security system where no one will be able access without login credentials	Firebase. Firewall, Cyber resiliency strategy
2	Scalable Architecture	By increasing the bandwidth, the operating range can be increased	IoT Internet
3	Availability	Available 24/7	IBM Cloud
4	Performance	It can support a large amount of users to access the technology	IBM Cloud