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

| Date	22 October 2022
Team ID	PNT2022TMID08042
Project Name	Project -Signs with Smart Connectivity for Better Road Safety
Maximum Marks	4 Marks

Technical Architecture:

Guidelines:

1. Smart Connectivity-based signboards are used to replace static signboards.
2. The diversion signs are altered depending on the scenario, such as heavy traffic, construction, or a branch on the route.
3. Signs are put on sign boards in the area of schools, hospitals, and restaurants, among other places.
4. A web application that changes the signboards' speed limits based on weather conditions it retrieves from a weather API.
5. Many various operations may be updated, such as the ability to quickly locate stolen automobiles by determining the number of occupants in a car.
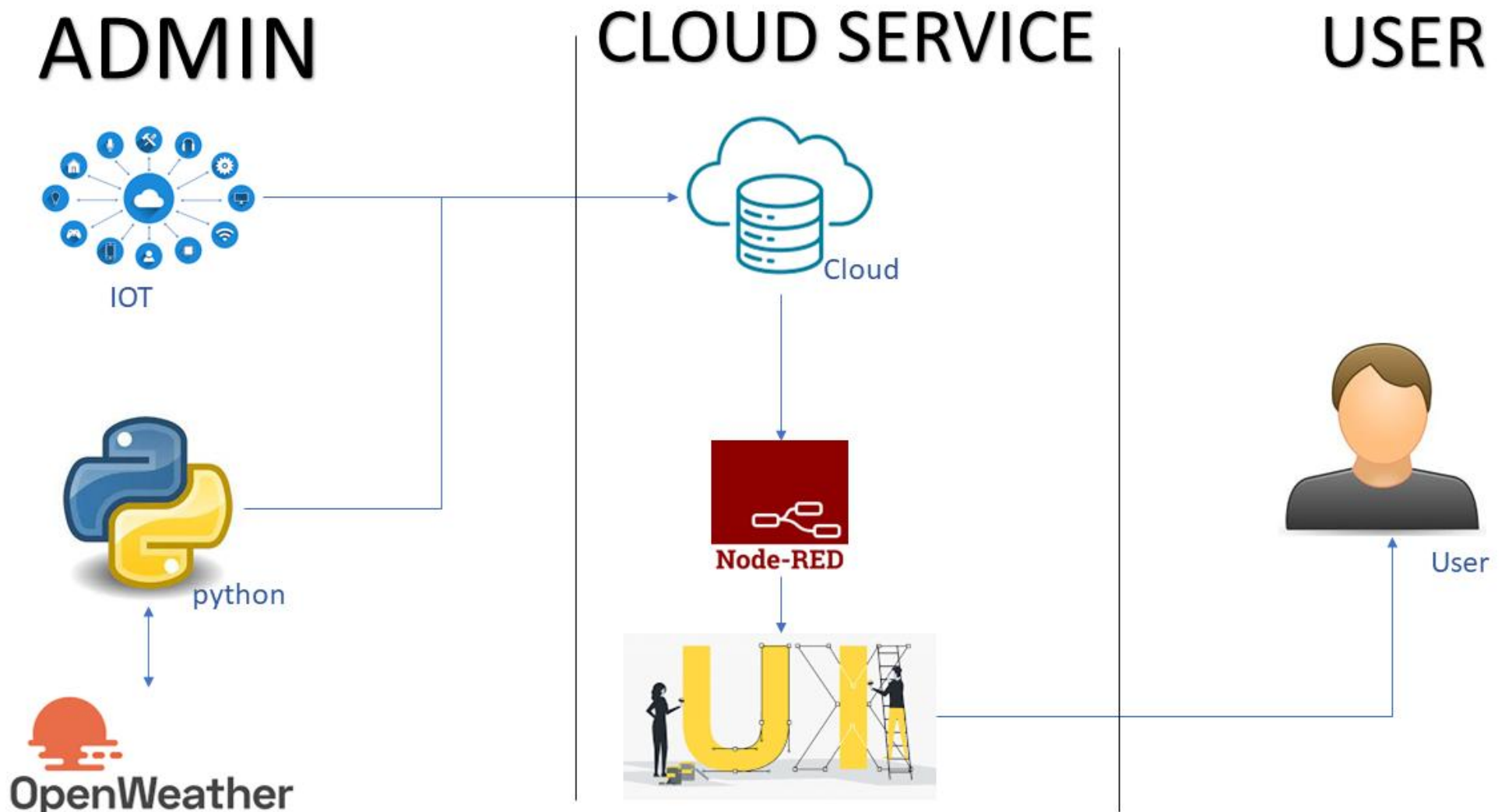
ADMIN

CLOUD SERVICE

USER

IOT

python

OpenWeather

Cloud

Node-RED

UI
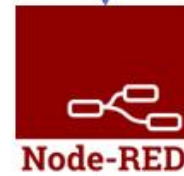
User

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The manner in which a user engages with a certain programme, in this example a Web UI app	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-2	Logic for a process in the application	IBM Watson STT service.
3.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant.
4.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant.
5.	External API-1	Purpose of External API used in the application	IBM Weather API.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Security Implementations	An extremely strict security mechanism that prohibits access without login information	Firebase. Firewall, Cyber resiliency strategy
2.	Scalable Architecture	The operational range can be expanded by expanding the bandwidth.	IoT, Internet
3.	Availability	Available 24/7	IBM Cloud
4.	Performance	It can accommodate several people accessing the technology.	IBM Cloud