Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	04 November 2022
Team ID	PNT2022TMID22104
Project Name	Sign with smart connectivity for better Road safety
Maximum Marks	4 Marks

Technical Architecture:

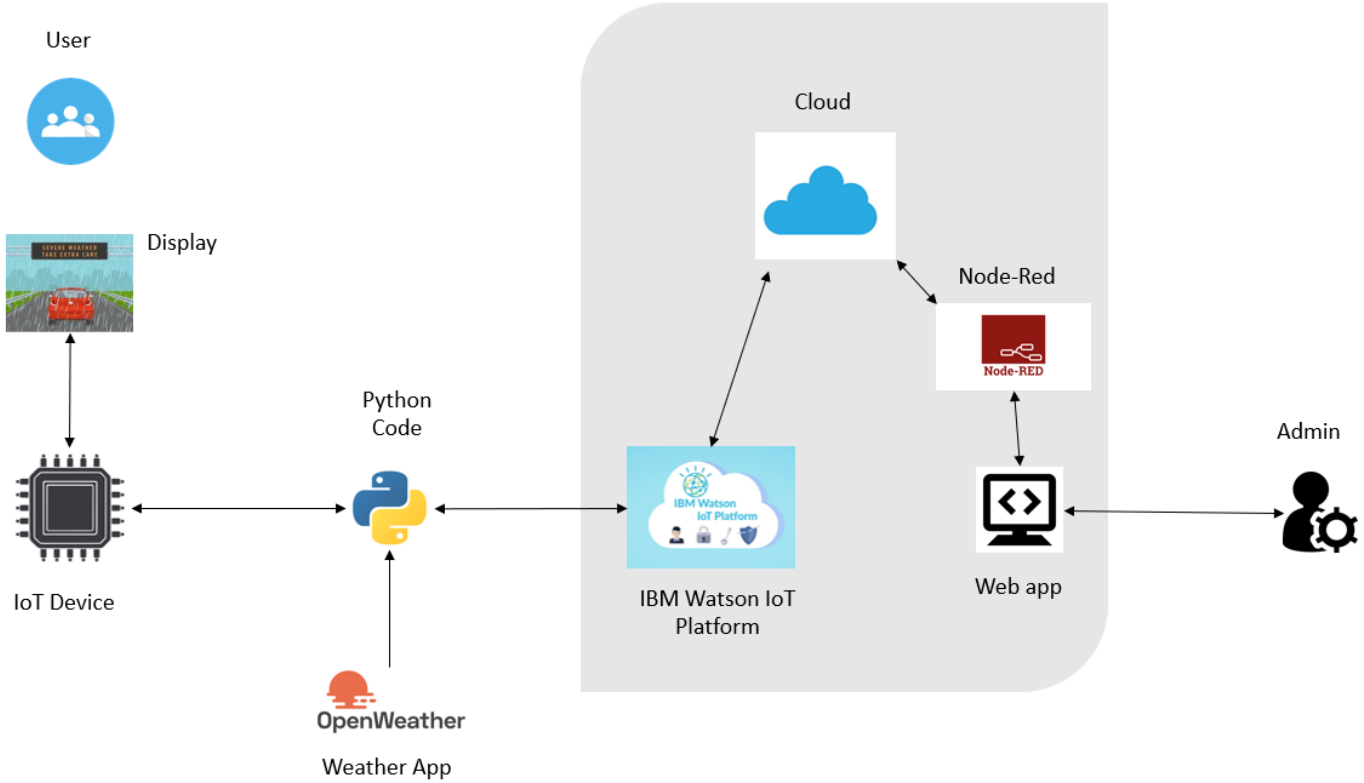

Table-1 : Components & Technologies

S.No	Component	Description	Technology
1.	User Interface	To monitor the activites of smart board	HTML, CSS, JavaScript ,React Js etc.
2.	Application Logic	Logic for a process in the application	Java / Python
3.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
4.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
5.	Back end	Authentication	Node js
6.	External API	To serve a weather report to anlayse the data	IBM Weather API, etc.
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	React,Tailwind css
2.	Security Implementations	List all the security / access controls implemented,use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	IBM CLOUD
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	IBM CLOUD
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN’s) etc.	IBM CLOUD

References:

https://c4model.com/

https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/

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

https://aws.amazon.com/architecture

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d