Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	13 October 2022
Team ID	PNT2022TMID28269
Project Name	Signs with smart connectivity for better road safety
Maximum Marks	4 Marks

Functional Requirements

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
1	User Registration	Registration through Form Registration through Gmail
2	User Confirmation	Confirmation via Email Confirmation via OTP
3	IoT devices	To do Automation Work without manually
4	Python code	To give some input to the devices for performing some action to complete the tasks very easily
5	OpenweatherMap	To check the weather,humidity,Temperature,slippery of roads for safety purpose
6	IBM Cloud	To predict the terms such as weather and accidents. And application will be available as pubic version after deployment
7	Node-Red	To integrate the Hardware devices with the web application and GUI application for linear workflow
8	Web UI	User interface (UI) is anything a user may interact with to use a digital product or service.
9	User	By using the above applications ,the user can easily get to know prior information regarding road safety

Non-functional Requirements

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
1	**Usability**	To avoid unwanted accidents and ensure the safety
2	**Security**	If the data should be encrypted strongly by using high secured network and the fire wall cannot be broken from foreign users
3	**Reliability**	For to ensure the network presence at every place ,we can offer free data pack after the instance user creates their account
4	**Performance**	The performance of these applications is easy to access for all peoples
5	**Availability**	By using smart traffic light ,traffic control systems and artificial Intelligence can contributed
6	**Scalability**	These application can be supported for all users without degradation of quality of services