**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 13 October 2022 |
| Team ID | PNT2022TMIDB2-2M4E |
| Project Name | Project – Signs with smart connectivity for better road safety |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | **User Guidance** | * Guides user to know complete information about the **workflows performed** by the system * Defines the **functionality** of the product, product feature. * **Focus on user requirement** , which involves the explanation importance of choosing our product. * User manual provided * Client application tour |
| FR-2 | **User Registration** | The registration may be manual based on data entered by the user.  There are two steps  1.Initially **sign in** (first time registration), the data required are :   * Email id, Mobile number * Google account   2.**login**(for every usual attempts) |
| FR-3 | **User confirmation** | * If they type in their **username** and **password** and click submit the users credentials are **validated** using **gmail**,mobile **OTP** through message. * And if it is correct they are logged in and can **access the web.** * **Two step authentication** involves * In case of **forgetting password** the can recover the account through their provided login credentials. |
| FR-4 | **User compilance to laws and regulation** | * **Conforming** to a rule, such as a **specification**, **policy**, **standard or law**. * Regulatory compliance describes the goal that organizations aspire to achieve in their efforts * To ensure that they are **aware of** and take steps to comply with relevant laws, policies, and **regulations, guidelines** and **specifications** relevant to its business processes. |
| FR-5 | **User Subscription/payment** | * The user can access the resources by subscribing our web services , **Package selection** and **invoicing is provided**. * The payment options may **include payment gateways like credit cards, debit cards net banking and UPI services** |
| FR-6 | **Product installation to the user** | * This phase involves **integration of product to the automobile** which mustly involves uninterrupted **Network** and **GPS** service for continous smart sign guidance * And the product features can also **customised** based on the customer and **budget** as well as the vechicle. * Before installation involves **API testing** and product testing involves. |
| FR-7 | **Product updation** | * **Periodic updation** is involved in the web application. * **Notifications** are provided * Based on the requirement the features can be **add on removed(customised).** * **Quality Assuarance** also provided for a period of time which is a major factor |
| FR-8 | Customer(user) care | * Best customer service and guidance is provided by providing **contact info(GMAIL & TELE NO) in the official website** . * Performance Qualification, Validation Plans services are also provide etc (all customer issues validated) |

**Non-functional Requirements:**

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

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | The user should go through the provided user manual and guide to **utilize all the features** in all possible ways , the software should be understood, used, and learned by its intended users. |
| NFR-2 | **Security** | **Two step Authentication** will be provided for better security if the user feel insecured about the web UI he can undergo authentication process and better privacy fumctions are provided. |
| NFR-3 | **Reliability** | Minimum 4 to 5 yearsto which thesystem consistently performs the **specified functions without failure.** |
| NFR-4 | **Performance** | The performance should be more **Accurate**, on timing, more specific to the relevant situation, very fast , since it is safety related the performance is a major factor to be considered in Nonfunctional requirement. |
| NFR-5 | **Availability** | This product designed **24 hrs availability,**that the user **can access anywhere** and all time during the travel. |
| NFR-6 | **Scalability** | More changes can be made in future with more features like alarm, and many more sensors can be added for the preacquisition of traffic and fatal situations. |