**Project Design Phase-II**

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

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| Date | 14 October 2022 |
| Team ID | PNT2022TMID24844 |
| 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.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | Travelers Registration | Registration in the platform needs for communicating with customer through their mobile |
| FR-2 | Transport Agency Registration | Register for getting approval to implement the smart sign boards for better road safety |
| FR-3 | Weather Monitoring | Open weather API implemented to monitor weather reports and update in database |
| FR-4 | Sensor implementation | Monitoring traffic density and road condition, pedestrian monitoring and controls traffic signals. |
| FR-5 | Database Management | Updating information in the database to intimate the users about the abnormal situations |
| FR-6 | Information Sharing | Once the situation detected the user get information via the digital display who travels along the road also it will update in the platform, so others plan accordingly |

**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** | Easy to follow instructions displays on the board. Understanding the signs should be clear. |
| NFR-2 | **Security** | Provide better security, any other third party can’t able to display information in the board, Users data are kept confidential. |
| NFR-3 | **Reliability** | It can able to withstand in any weather condition and the hardware parts require periodic monitoring to avoid any damage. It is dynamic in nature and reduce traffic congestion. |
| NFR-4 | **Performance** | The smart display improves the safety and it makes user tense free and keep them in a comfort zone.  Also quality of service is improved. |
| NFR-5 | **Availability** | The solution is available 24X7 and also withstand any climate changes. |
| NFR-6 | **Scalability** | It can be implemented efficiently in anywhere and data execution will be faster. Provides better safety |