## Project Design Phase-II Solution Requirements (Functional & Nonfunctional)

| Date          | 17 October 2022                       |
|---------------|---------------------------------------|
| Team ID       | PNT2022TMID05270                      |
| Project Name  | Project - SMART SOLUTION FOR RAILWAYS |
| Maximum Marks | 4 Marks                               |

## **Functional Requirements:**

Following are the functional requirements of the proposed solution.

| FR   | Functional Requirement  | Sub Requirement (Story / Sub-Task)                                                                                                                      |
|------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| No.  | (Epic)                  |                                                                                                                                                         |
| FR-1 | User Registration       | Registration through Web page                                                                                                                           |
| FR-2 | User Confirmation       | Confirmation via OTP through SMS                                                                                                                        |
| FR-3 | User QR code generation | QR code generation                                                                                                                                      |
| FR-4 | GPS tracker             | Current location of train is tracked                                                                                                                    |
| FR-5 | Available of seat       | Based on the available of the seat,we can be book the ticket                                                                                            |
| FR-6 | Testing                 | UQR =scanned QR from the user; CQR= the code already obtained by the ticket collector; if (UQR==CQR) {     Print("PASS"); } else {     Print("FAIL"); } |

## **Non-functional Requirements:**

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

| FR<br>No. | Non-Functional<br>Requirement | Description                                                                                          |
|-----------|-------------------------------|------------------------------------------------------------------------------------------------------|
| NFR-1     | Usability                     | User can navigate easily to find the location of the train                                           |
| NFR-2     | Security                      | The details are secured in the database(cloud)                                                       |
| NFR-3     | Reliability                   | Reliable to the user without any failure as it is not fixed to limited number of user                |
| NFR-4     | Performance                   | User -friendly,the performance should effective and efficient                                        |
| NFR-5     | Availability                  | Available at any time and any where we want.                                                         |
| NFR-6     | Scalability                   | Support the user with their needs in reserving or booking tickets and tracking the location of train |