**Project Design Phase-II**

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

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| Team ID | PNT2022TMID51289 |
| Project Name | Project – SMART SOLUTIONS FOR RAILWAYS |

**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 Registration | If Passenger want to book tickets.Firstly,they need to register as new user in web app.User need to enter email or phone number and create strong password for registration |
| FR-2 | User verification | The verification code is sended to the registered email id or phone number for registration. |
| FR-3 | User confirmation | The verification code is entered in to the app application. After finishing that home page is opened. After verification, user can proceed to login with valid credential. |
| FR-4 | Process of booking | When the home page is opened there will be a from and to option.Then, the passenger has to provide his/her details with the date of the journey, names of the passengers and their details, origin station details, destination station details, and the class type of the required ticket(s)  The Railway Reservation System will provide the available Train-list, and Seat-availability, via-details. |
| FR-5 | Payment process | To book a ticket passengers can pay through online/offline mode.  If the passenger select online payment mode,the ui shows lot of payment option like net banking, upi,card payment.  Through various option the passenger can done payment and it can be done by in secure manner. |
| FR-6 | Confirmation message | After done the payment,ticket is booked.The confirmation will sent to register email or phone number.  E-ticket will be sent and also QR code sent to register email id and phone number.  Passenger can show the QR code to ticket collector for verfication. If the ticket collector scan the QR code then the passenger details will shown in his/her gadget screen |

**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 web app can easily accessible because of it’s sleek and simple user interface |
| NFR-2 | **Security** | The web app can access only by valid user and password credential. The payment gateway have lot of security |
| NFR-3 | **Reliability** | In the process booking ticket, passenger may face session timed out or network error. The web app auto save option. Therefore lot of time is saved |
| NFR-4 | **Performance** | The application is work faster with good network connection |
| NFR-5 | **Availability** | QR code is sended through the message and email id or phone number |
| NFR-6 | **Scalability** | Session management is available for web app. Numerous user can access the web app easily. |