Project Planning Phase

| Date | 24 October 2022 | | |
|---------------|--|--|--|
| Team ID | PNT2022TMID21839 | | |
| Project Name | Project – SMART SOLUTIONS FOR RAILWAYS | | |
| Maximum Marks | 8 Marks | | |

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|----------|----------------------------------|----------------------|--|--------------|----------|--|
| Sprint-1 | | US-1 | Create the IBM Cloud services which are being used in this project. | 6 | High | Monish kumar T S, Kokila N, Suba Lakshmi P, Jaya kumaran S |
| Sprint-1 | | US-2 | Configure the IBM Cloud services which are being used in completing this project. | 4 | Medium | Monish kumar T S, Kokila N, Suba Lakshmi P, Jaya kumaran S |
| Sprint-1 | | US-3 | IBM Watson IoT platform acts as the mediator to connect the web application to IoT devices, so create the IBM Watson IoT platform. | 5 | Medium | Monish kumar T S, Kokila N, Suba Lakshmi P, Jaya kumaran S |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|----------|----------------------------------|----------------------|--|--------------|----------|---|
| Sprint-3 | | US-1 | Develop a python script for publishing the location (latitude and longitude) data to the IBM IoT Platform and the other python code to read the QR Code and fetch the data from Cloudant DB. | 20 | High | Monish kumar T S, Kokila N, Suba Lakshmi P, Jaya kumaran S |
| Sprint-2 | | US-2 | Create a Node-RED service. | 10 | High | Monish kumar T S, Kokila N, Suba Lakshmi P, Jaya kumaran S |
| Sprint-2 | | US-1 | Configure the connection security and create API keys that are used in the Node-RED service for accessing the IBM IoT Platform. | 10 | High | Monish kumar T S, Kokila N, Suba Lakshmi P, Jaya kumaran S |
| Sprint-1 | | US-4 | In order to connect the IoT device to the IBM cloud, create a device in the IBM Watson IoT platform and get the device credentials. | 5 | High | Monish kumar T S, Kokila N, Suba Lakshmi P, Jaya kumaran S |

| Sprint-4 | US-1 | Develop the web application using Node-RED | 10 | Medium | Monish kumar T S, Kokila N, Suba Lakshmi P, Jaya kumaran S |
|----------|------|--|----|--------|---|
| Sprint-4 | US-2 | Testing the Web UI by giving the required inputs | 10 | High | Monish kumar T S, Kokila N, Suba Lakshmi P, Jaya kumaran S |

| Sprint | Total Story Points | Duration | Sprint Start Date | Sprint End Date (Planned) | Story Points Completed (as on | Sprint Release Date (Actual) |
|--------|-----------------------|----------|-------------------|---------------------------|----------------------------------|------------------------------|
| | | | | | Planned End Date) | |

| Sprint-1 | 20 | 6 Days | 24 Oct 2022 | 29 Oct 2022 | 20 | 29 Oct 2022 |
|----------|----|--------|-------------|-------------|----|-------------|
| Sprint-2 | 20 | 6 Days | 31 Oct 2022 | 05 Nov 2022 | 20 | 05 Nov 2022 |
| Sprint-3 | 20 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 20 | 12 Nov 2022 |
| Sprint-4 | 20 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 20 | 19 Nov 2022 |

Project Tracker, Velocity & Burndown Chart: (4 Marks)

Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$