Project Planning Phase

Date	21 October 2022
Team ID	PNT2022TMID36291
Project Name	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		USN-1	Create the IBM Cloud services which are being used in this project.	6	High	K Vivek Narayana Reddy, K Midhun Surya Kalyan, B V M Raghava Reddy, Nellore Sumanth, Kavati Sumanth
Sprint-1		USN-2	Configure the IBM Cloud services which are being used in completing this project.	4	Medium	K Vivek Narayana Reddy, K Midhun Surya Kalyan,

						B V M Raghava Reddy, Nellore Sumanth, Kavati Sumanth
Sprint-1		USN-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	K Vivek Narayana Reddy, K Midhun Surya Kalyan, B V M Raghava Reddy, Nellore Sumanth, Kavati Sumanth

Sprint-1		USN-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	K Vivek Narayana Reddy, K Midhun Surya Kalyan, B V M Raghava Reddy, Nellore Sumanth, Kavati Sumanth

Sprint-2		USN-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	K Vivek Narayana Reddy, K Midhun Surya Kalyan, B V M Raghava Reddy, Nellore Sumanth, Kavati Sumanth
Sprint-2		USN-2	Create a Node-RED service.	10	High	K Vivek Narayana Reddy, K Midhun Surya Kalyan, B V M Raghava Reddy, Nellore Sumanth, Kavati Sumanth
Sprint-3		USN-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	K Vivek Narayana Reddy, K Midhun Surya Kalyan, B V M Raghava Reddy, Nellore Sumanth, Kavati Sumanth

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4		USN-1	Develop the web application using Node-RED	10	Medium	K Vivek Narayana Reddy, K Midhun Surya Kalyan, B V M Raghava Reddy, Nellore Sumanth, Kavati Sumanth
Sprint-4		USN-2	Testing the Web UI by giving the required inputs	10	High	K Vivek Narayana Reddy, K Midhun Surya Kalyan, B V M Raghava Reddy, Nellore Sumanth, Kavati Sumanth

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

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