

## Project Planning Phase

### Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

Date	08 November 2022
Team ID	PNT2022TMID33715
Project Name	Project – Smart Solutions For Railways
Maximum Marks	8 Marks

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

Use the below template to create product backlog and sprint schedule

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	S.Sankar S.Prakash G.Vignesh N.Surya Kumar
Sprint-1		USN-2	Configure the IBM Cloud services which are Being used in completing this project.	4	Medium	S.Sankar S.Prakash G.Vignesh N.Surya Kumar

<b>Sprint</b>	<b>Functional Requirement (Epic)</b>	<b>User Story Number</b>	<b>User Story / Task</b>	<b>Story Points</b>	<b>Priority</b>	<b>Team Members</b>
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 platform.	5	Medium	S.Sankar S.Prakash G.Vignesh N.Surya Kumar
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	S.Sankar S.Prakash G.Vignesh N.Surya Kumar
Sprint-2		USN-1	Configure the connection security and create API keys that are used in the Node-RED Services for accessing the IBM IOT Platform.	10	High	S.Sankar S.Prakash G.Vignesh N.Surya Kumar
Sprint-2		USN-2	Create a Node-RED service.	10	High	S.Sankar S.Prakash G.Vignesh N.Surya Kumar

<b>Sprint</b>	<b>Functional Requirement (Epic)</b>	<b>User Story Number</b>	<b>User Story / Task</b>	<b>Story Points</b>	<b>Priority</b>	<b>Team Members</b>
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	S.Sankar S.Prakash G.Vignesh N.Surya Kumar
Sprint-4		USN-1	Develop the web application using Node-RED	10	Medium	S.Sankar S.Prakash G.Vignesh N.Surya Kumar
Sprint-4		USN-2	Testing the Web UI by giving the required inputs.	10	High	S.Sankar S.Prakash G.Vignesh N.Surya Kumar

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

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

#### 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)

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

#### Burndown Chart:

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

