

## Project Planning Phase

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

Team ID	PNT2022TMID41855
Project Name	Hazardous Area Monitoring for Industrial Plant powered by IoT
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	Creation	USN-1	Creating a code for connecting sensor and Arduino.	4	High	Manikandan B Sabaresan S Nizrarhamed J Sarathkumar E
Sprint-1	Simulation	USN-2	Simulating the code.	4	Medium	Manikandan B Sabaresan SI
Sprint-2	Device Creation	USN-3	Device creation using IOT Watson platform with credentials	4	High	Sabaresan S Nizrarhamed J
Sprint-2	Device performance	USN-4	Required performance of device using local node red platform.	4	Medium	Manikandan B Sabaresan S Nizrarhamed J Sarathkumar E
Sprint-3	Python code	USN-5	Python code for the temperature alert and humidity check.	4	Medium	Manikandan B Nizrarhamed J Sarathkumar E
Sprint-3	Monitoring	USN-6	Design an application for the project using MIT app inventor.	4	High	Sabaresan S Sarathkumar E
Sprint-4	Testing	USN-7	Test the application with required MIT AI2 Companion code.	4	Low	Manikandan B Sabaresan S Nizrarhamed J Sarathkumar EI

Sprint-4	User Interface	USN-8	Creation of web UI (user interface) connected to the software.	4	High	Manikandan B
----------	----------------	-------	--	---	------	--------------

### 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.

