

Project Planning Phase

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

Team ID	PNT2022TMID15063
Project Name	Gas Leakage Monitoring and Alerting system for industries

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	Objective	USN-1	As a system, the gas sensor should detect the gas.	8	High	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 1	Features	USN-2	As a system, the gas sensor values and the exact location of the detected gas should be sent.	2	Low	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 1	Features	USN-3	As a system, as soon as the detected gas reaches the threshold level, the red color LED should be turned ON.	5	High	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 1	Features	USN-4	As a system, as soon as the detected gas reaches the threshold level, the siren (alarm) should be turned ON.	5	High	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 2	Features	USN-5	As a system, the gas alarm should detect automatically when the gas leakage is held.	5	Medium	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 2	Features	USN-6	As a system, it will indicate the gas leakage and the exact location.	5	Medium	Manusa K R Gopika S Sobiya Selsiya M

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
						Priyadharshini S
Sprint 2	Data transfer	USN-7	As a cloud system, it should send the data of the sensor values to the IBM cloud.	5	Low	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 2	Data transfer	USN -8	As a cloud system, the data's will be received in the IBM Watson IOT Platform .	5	Medium	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 3	Data transfer	USN-9	As a program, it should retrieve the API key of the IBM cloud to send the details of the system	5	Medium	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 3	Data transfer	USN-10	As a cloud system, the IBM cloud should send the data to Node-red and the Node Red should Process the data from IBM cloud.	4	High	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 3	Data Transfer	USN-11	As a cloud system, the IBM Node Red should send the data to the dashboard	3	Medium	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 3	Dashboard	USN-12	As a user, I can access the dashboard and make use of available resources	4	Medium	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 3	Focus	USN-13	As a system, the dashboard must display location of the gas leakage.	4	High	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 4	Data transfer	USN-14	As a cloud system, the Node Red must send data to MIT app through API key	3	Medium	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 4	Data transfer	USN-15	As an application, the MIT app should receive the data from Node-Red in the backend and do necessary processes.	5	Medium	Manusa K R Gopika S Sobiya Selsiya M

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Sprint 4	Focus	USN-16	As an application, it should display the details through the frontend of the MIT app.	8	High	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S
Sprint 4	Focus	USN-17	As an application, it should display the notification when the gas is detected in the gas sensor to the user through the notification.	4	High	Manusa K R Gopika S Sobiya Selsiya M Priyadharshini S

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)

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