Date	**22 October 2022**
Team ID	**PNT2022TMID04334**
Project Name	**Gas leakage monitoring and alerting system for industries**
Maximum Marks	**8 Marks**

Project Planning Phase

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

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	The gas sensor should detect the gas	8	High	Bharani, Bharanidharan
Sprint-1	Features	USN-2	The values from the sensor should be displayed in the LCD screen	2	Medium	Bharani, Bharanidharan
Sprint-1	Features	USN-3	Once the detected gas reaches the threshold level, the red color LED should be turned ON.	5	High	Bharani, Bharanidharan
Sprint-1	Features	USN-4	As soon as the detected gas reaches the threshold level, the siren should be turned ON.	5	High	Bharani, Bharanidharan
Sprint-2	Focus	USN-5	The system should send the location where the gas is detected	8	High	Harish, Gomanishwaran
Sprint-2	Focus	USN-6	The system should also send the alerting SMS to the registered phone number	2	High	Harish, Gomanishwaran

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-2	Features	USN-7	The gas leakage pipe should be closed automatically once it attains the threshold value	5	High	Harish, bharani
Sprint-2	Features	USN-8	The system will indicate that the gas leakage pipe is closed in the LCD screen and send SMS to the registered mobile number.	5	Medium	Gomanishwaran,Bharani
Sprint-3	Data Transfer	USN-9	The system should send the data of sensor values along with latitudes and longitudes to the IBM cloud	5	Medium	Harish, Bharanidharan
Sprint-3	Data Transfer	USN-10	The IBM cloud should send the data to Node-Red	5	Medium	Harish, Gomanish
Sprint-3	Data Transfer	USN-11	Data should be collected from the Node-Red and should be sent to the backend of the MIT app.	4	Medium	Harish, Gomanish
Sprint-3	Data Transfer	USN-12	The application should display the details of the gas level and other details to the user through the frontend of the MIT app.	7	High	Harish, Gomanish
Sprint-4	Registration	USN-13	User must first register their email and mobile number in the website	2	High	Gomanishwaran, Bharani

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4	Registration	USN-14	User should receive confirmation mail and SMS on registration	2	Medium	Gomanishwaran, Bharani
Sprint-4	Login	USN-15	User can login into the web application through email and password.	3	High	Harish, Bharanidharan
Sprint-4	Dashboard	USN-16	User can access the dashboard and make use of available resources.	2	Medium	Harish, Bharanidharan, Bharanidharan
Sprint-4	Focus	USN-17	User should receive an SMS once the leakage is detected.	5	High	Gomanishwaran, Bharani
Sprint-4	Allocation	USN-18	Admin must receive information about the leakage along with location and share exact location and route to the person.	3	High	Harish, Gomanish
Sprint-4	Allocation	USN-19	Admin must allot particular person to look after the leakage in a particular location.	3	High	Harish, Gomanish

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)

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

Burndown Chart: