

## **Project Planning Phase**

### **Sprint Delivery Plan**

Date	22 October 2022
Team ID	PNT2022TMID15951
Project Name	Gas Leakage Monitoring and Alerting System
Maximum Marks	8 Marks
Team Members	<b>Barani G(TEAM LEADER)</b> Ashwini R Akshaya K S Abitha J

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

<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	Objective	USN-1	As a system, the gas sensor should detect the gas	8	High	Abitha Akshaya
Sprint-1	Features	USN-2	As a system, the gas sensor values displayed on LCD	5	High	Akshaya Ashwini
Sprint-1	Features	USN-3	As a system, when gas reaches the threshold value, Red color LED will glow	8	High	Ashwini Barani
Sprint-1	Features	USN-4	As a system, then Siren will ON	2	Low	Barani Abitha

<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-2	Focus	USN-5	As a system, it should send location to the user where gas leakage is detected	5	Medium	Akshaya Barani
Sprint-2	Focus	USN-6	As a program, it should send alerting SMS to the registered mobile number	8	High	Abitha Ashwini
Sprint-2	Features	USN-7	As a system, the gas pipe should be closed automatically once it attains threshold.	5	Medium	Akshaya Abitha
Sprint 3	Data Transfer	USN-8	As a program, it should retrieve API key of the IBM cloud to send the details	3	Low	Ashwini Barani
Sprint 3	Data Transfer	USN-9	As a system, it should send sensor values along with latitude and longitude to IBM cloud and to NodeRed	5	Medium	Akshaya Ashwini
Sprint 3	Data Transfer	USN-10	As an application, it should display the gas level details to the user through frontend mit app	8	High	Abitha Akshaya

<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-4	Registration	USN-11	As a user, I must receive confirmation mail and SMS on registration	3	High	Akshaya Ashwini
Sprint-4	Dashboard	USN-12	As a user, I can login into the web application through email and password.	2	Medium	Abitha Barani
Sprint-4	Dashboard	USN-13	As a user, I can access the dashboard and make use of available resources.	5	High	Barani Abitha
Sprint 4	Focus	USN-14	As a user, I must receive an SMS once the leakage is detected.	5	High	Akshaya Abitha
Sprint-4	Allocation	USN-15	As an admin, I must receive information about the leakage along with location and share exact location and route to the person.  I must allot particular person to look after the leakage in a particular location.	4	High	Ashwini Barani

**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		29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022		05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022		12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022		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)

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

## **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.

<https://www.visual-paradigm.com/scrum/scrum-burndown-chart/>

<https://www.atlassian.com/agile/tutorials/burndown-charts>