**Project Planning Phase**

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

|  |  |
| --- | --- |
| Date | 8 NOVEMBER 2022 |
| Team ID | PNT2022TMID36126 |
| Project Name | Gas leakage monitoring and alerting system using IOT |
| 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 / Task** | **Story Points** | **Priority** | **Team Members** |
| --- | --- | --- | --- | --- | --- |
| Sprint-1 | Related work | Introduced GSM based gas leakage detection system in which the GSM module is introduced for wireless alert and gas leakage detection ,efficiently implemented. | 2 | High | LAHARI P  KEERTHANA P  ISHA GOPIKA G  NARSINENI KAVYA SRI |
| Sprint-1 | Proposed method | Send alert SMS to the in charge of the plant whose number is saved in SIM card by using GSM modem. | 2 | High | LAHARI P  KEERTHANA P  ISHA GOPIKA G  NARSINENI KAVYA SRI |
| Sprint-2 | Hardware description | Arduino UNO, Gas leakage sensor, GSM module, Buzzer, LCD these hardware are used to monitor and alerting purpose . | 1 | Low | LAHARI P  KEERTHANA P  ISHA GOPIKA G  NARSINENI KAVYA SRI |
| Sprint-3 | Software implementation | This system monitors the gas, smoke by sensor. If any gas is detected the signal of sensor goes low and activate the Arduino UNO. This is send to LCD display. | 1 | Medium | LAHARI P  KEERTHANA P  ISHA GOPIKA G  NARSINENI KAVYA SRI |
| Sprint-4 | Result and discussion | Buzzer and GSM modem alerts the people who are present in the danger place. | 2 | High | LAHARI P  KEERTHANA P  ISHA GOPIKA G  NARSINENI KAVYA SRI |

**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 | 31 Oct 2022 |
| Sprint-3 | 20 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 20 | 7 Oct 2022 |
| Sprint-4 | 20 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 20 | 14 Oct 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)



Figure

Burndown chart

**Balance work**

100

75

Work remaining 50

25

0   
 **| | | | |**

START SPRINT 1 SPRINT 2 SPRINT 3 SPRINT 4

Burndown chart

**Balance work**

100

75

Work remaining 50

25

0   
 **| | | | |**

START SPRINT 1 SPRINT 2 SPRINT 3 SPRINT 4