**Project Planning Phase**

**Project Planning Template (Product Backlog, Sprint Planning, Stories, Storypoints)**

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| --- | --- |
| Date | 31 October 2022 |
| Team ID | PNT2022TMID54029 |
| Project Name | Hazardous Area Monitoring for Industrial  Plant powered by 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**  **Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-1 | Objective | USN-1 | The sensor must detect the humidity | 7 | High | Kaushik Balaji,  Ram kumar |
| Sprint-1 | Features | USN-2 | The values must be displayed | 2 | Low | Kaushik Balaji, Karthick Raja |
| Sprint-1 | Features | USN-3 | Based on threshold, alert has to be sent | 5 | High | Ram kumar, Karthick Raja |
| Sprint-1 | Features | USN-4 | Based on threshold, Buzzer and other alerting system must be turned ON | 5 | High | Ram kumar, Karthick Raja |
| Sprint-2 | Focus | USN-6 | Alert SMS must be sent to the registered phone number | 2 | Low | Ram kumar , Kaushik Balaji |
| Sprint-2 | Features | USN-8 | Whether the malfunction is rectified or emergency measures needed | 5 | Medium | Ram kumar |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional**  **Requirement (Epic)** | **User Story**  **Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-3 | Data Transfer | USN-9 | API key must be retrieved to transfer the data to IBM Cloud | 2 | Low | Karthick Raja, Ram Kumar |
| Sprint-3 | Data Transfer | USN-10 | Data of sensor must be sent to IBM Cloud | 5 | Medium | Ram kumar,Karthick Raja |
| Sprint-3 | Data Transfer | USN-11 | IBM Cloud should send data to Node Red | 2 | Medium | Ram kumar, Kaushik Balaji |
| Sprint-3 | Data Transfer | USN-12 | Data obtained in Node Red must be forwarded to MIT App | 3 | Medium | Ram kumar, Karthick Raja |
| Sprint-3 | Data Transfer | USN-13 | Data must be displayed in the application developed using MIT. | 8 | High | Ram kumar,Kaushik Balaji |
| Sprint-4 | Registration | USN-14 | User must register an account using Email and Mobile Number in the website | 2 | High | Ram kumar,Kaushik Balaji |
| Sprint-4 | Registration | USN-15 | Confirmation mail must be received to the registered Mail-ID | 2 | Medium | Kaushik Balaji,Ram kumar |
| Sprint-4 | Login | USN-16 | User can login into web application through email and password. | 3 | High | Karthick Raja, Ram kumar |
| Sprint-4 | Dashboard | USN-17 | User can access the dashboard and make use of available resources. | 2 | Medium | Ram Kumar |
| Sprint-4 | Focus | USN-18 | User must receive an SMS once an abnormal condition is detected | 5 | High | Kaushik Balaji |
| Sprint-4 | Allocation | USN-19 | Admin must receive information about the situation and can alert the concerned authorities | 3 | High | Kaushik Balaji, Ram kumar |
| Sprint-4 | Allocation | USN-20 | Admin must allot particular person to look after the atmospheric changes. | 3 | High | Ram kumar, Karthick Raja |

**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)



**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](https://www.visual-paradigm.com/scrum/what-is-agile-software-development/) methodologies such as [Scrum.](https://www.visual-paradigm.com/scrum/scrum-in-3-minutes/) 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.visual-paradigm.com/scrum/scrum-burndown-chart/) [**https://www.atlassian.com/agile/tutorials/burndown-charts**](https://www.atlassian.com/agile/tutorials/burndown-charts)

**Reference:** [**https://www.atlassian.com/agile/project-management**](https://www.atlassian.com/agile/project-management) [**https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software**](https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software) [**https://www.atlassian.com/agile/tutorials/epics**](https://www.atlassian.com/agile/tutorials/epics) [**https://www.atlassian.com/agile/tutorials/sprints**](https://www.atlassian.com/agile/tutorials/sprints) [**https://www.atlassian.com/agile/project-management/estimation**](https://www.atlassian.com/agile/project-management/estimation)

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