**Project Planning Phase**

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

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| --- | --- |
| Date | 09 Nov 2022 |
| Team ID | PNT2022TMID17030 |
| Project Name | Project – Real-time River Water Quality Monitoring and Control System |
| Maximum Marks | 8 Marks |

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

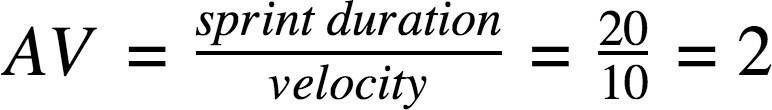
Use the below template to create a product backlog and sprint schedule

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| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional**  **Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-1 | Registration | USN-1 | As a user, I can register for the application by  entering my email, and password, and confirming my password. | 3 | High | nafeeshussain |
| Sprint-1 | Confirmation Email | USN-2 | As a user, I will receive a confirmation email once I have  registered for the application | 4 | High | sridharbalan |
| Sprint-2 | Authentication | USN-3 | As a user, I can register for the application through Gmail and mobile app. | 4 | Medium | Nagaraj  sakthivel |

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| --- | --- | --- | --- | --- | --- | --- |
| Sprint-2 | Login | USN-4 | As a user, I can log into the application by entering email & password | 3 | High | Nafeeshusain  sridharbalan |
| Sprint-2 | IBM Cloud Service Access | USN-5 | Get access to IBM cloud services. | 4 | High | Nagaraj  sakthivel |
| Sprint-3 | Create the IBM Watson IoT and device settings | USN-6 | To create the IBM Watson IoT Platform and integrate the microcontroller with it, to send the sensed data on Cloud | 2 | High | Nagaraj  Sridharbalan |
| Sprint-2 | Create a node red service | USN-7 | To create a node red service to integrate the IBM  Watson along with the Web UI | 2 | Medium | Sakthivel  nafeeshussain |
| Sprint-3 | Create a Web UI | USN-8 | To create a Web UI, to access the data from the cloud  And display all parameters. | 6 | Low | sridharbalan |

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| **Sprint** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-3 | To develop a Python code | USN-9 | Create a python code to sense the physical quantity and store data | 7 | Medium | Nagaraj  naffeshussain |
| Sprint-3 | Publish Data to cloud. | USN-10 | Publish Data that is sensed by the microcontroller to the  Cloud | 7 | High | sridharbalan |

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| --- | --- | --- | --- | --- | --- | --- |
| Sprint-4 | Fast-SMS Service | USN-11 | Use Fast SMS to send alert messages once the  parameters like pH, Turbidity and temperature goes  beyond the threshold | 6 | High | Sakthivel  Nagaraj  Sridharbalan |
| Sprint-4 | Testing | USN-12 | Testing of project and final deliverables | 7 | High | Nafeeshussain  sridharbalan |

**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)

**Burndown**

**Chart:**

|  |  |  |
| --- | --- | --- |
| **25**  **20**  **15**  **10**  **Start Week 1** | **Week 2**  Days | 300  250  200  150  100  50  **Week 3 Week 4** |
| Remaining Effort Ideal Burndown | | |