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

| | |
|---|---|
| Date | 22October 2022 |
| Team ID | PNT2022TMID00966 |
| Project Name | Project- Real Time River Quality Monitoring and Control System. |
| 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 | Registration | USN-1 | As a user, I can register for the application by entering my email, password, and confirming My password. | 2 | High | CHANDRA MOHAN, AKASH THOMAS, AJAY PRASAD |
| | Registration via Mail ID | USN-4 | As a user, I can register for the application through Gmail | 2 | Medium | |
| Sprint-2 | Confirmation | USN-2 | As a user, I will receive confirmation email once I have registered for the application | 1 | High | |
| | Login | USN-5 | As a user, I can log into the application by entering email & password | 1 | Medium | |
| | IBM Cloud service Access | | Get access to IBM cloud services. | 2 | High | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 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 | Medium | BARATH RAJ, AJAY PRASAD |
| | Create a node red service | USN-7 | To create a node red service to integrate the IBM Watson along with the Web UI | 2 | low | AKASH THOMAS ,AJAY PRASAD |
| | Create a Web UI | USN-8 | To create a Web UI, to access the data from the cloud And display all parameters. | 2 | Medium | BARATH RAJ |
| | Publish Data to cloud. | USN-10 | Publish Data that is sensed by the microcontroller to the Cloud | 3 | High | AKASH THOMAS |
| 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 | 3 | Medium | BARATH RAJ, CHANDRA MOHAN |

**Project Tracker, Velocity & Burn down 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 | 30 Oct 2022 |
| Sprint-2 | 20 | 6 Days | 31 Oct 2022 | 05 Nov 2022 | 30 | 06 Nov 2022 |
| Sprint-3 | 20 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 40 | 12 Nov 2022 |
| Sprint-4 | 20 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 50 | 19 Nov 2022 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Velocity:**

Imagine we have 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: