Project Planning Phase

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

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| --- | --- |
| Date | 22 October 2022 |
| Team ID | PNT2022TMID38637 |
| Project Name | 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 | INDIRA PRIYADHARSHINI.V, VAISHNAVI.G, KALPANA.S |
| Registration via facebook | USN-3 | As a user, I can register for the application  through Facebook | 2 | Low |
| 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 | High |
|  | 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 | High | DHARMADEVI.P, ASWINI.E |
| 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 | INDIRA PRIYADHARSHINI.V, VAISHNAVI.G |
| Create a Web UI | USN-8 | To create a Web UI, to access the data from the cloud  and display all parameters. | 2 | Medium | INDIRA PRIYADHARSHINI.V, VAISHNAVI.G |
| To develop a Python code | USN-9 | Create a python code to sense the physical quantity  and store data. | 2 | Medium | VAISHNAVI.G, KALPANA.S |

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| --- | --- | --- | --- | --- | --- | --- |
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| Publish Data to cloud. | USN-10 | Publish Data that is sensed by the microcontroller to the  Cloud | 3 | High | INDIRA PRIYADHARSHINI.V |
| 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 | High | INDIRA PRIYADHARSHINI.V, VAISHNAVI.G, KALPANA.S, ASWINI.E,  DHARMADEVI.P |
|  | Testing | USN-12 | Testing of project and final deliverables | 3 | Medium |

# Project Tracker, Velocity & Burndown Chart: (4 Marks)

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| --- | --- | --- | --- | --- | --- | --- |
| **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 | 2 Days | 24 Oct 2022 | 26 Oct 2022 | 20 | 29 Oct 2022 |
| Sprint-2 | 20 | 4 Days | 26 Oct 2022 | 30 Oct 2022 | 40 |  |
| Sprint-3 | 20 | 12 Days | 1 Nov 2022 | 12 Nov 2022 | 60 |  |
| Sprint-4 | 20 | 6 Days | 13 Nov 2022 | 19 Nov 2022 | 80 | 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.

