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

| Date | 26 October 2022 |
|---------------|---|
| Team ID | PNT2022TMID17260 |
| 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 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. | 3 | High | Kiruthika.S Kiruba.T Madhumitha.S Monika.T Dhivya.R |
| Sprint-1 | Registration via Facebook | USN-2 | As a user, I can register for the application through Facebook | 3 | High | Kiruthika.S Kiruba.T Madhumitha.S Monika.T Dhivya.R |
| Sprint-1 | registration via Gmail | USN-3 | As a user, I can register for the application through Gmail | 2 | Medium | Kiruthika.S Kiruba.T Madhumitha.S Monika.T Dhivya.R |
| Sprint-2 | Confirmation | USN-4 | As a user I will receive confirmation email once I have registered for the application | 3 | High | Kiruthika.S Kiruba.T Madhumitha.S Monika.T Dhivya.R |

| Sprint-2 | Login | USN-5 | As a user, I can log into the application by entering email & password | 3 | High | Kiruthika.S Kiruba.T Madhumitha.S Monika.T Dhivya.R |
|----------|-------------------|-------|--|---|------|---|
| Sprint-2 | IBM cloud service | USN-6 | Get access to IBM cloud services | 3 | High | Kiruthika.S Kiruba.T Madhumitha.S Monika.T Dhivya.R |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|----------|---------------------------------------|----------------------|--|--------------|----------|---|
| Sprint-3 | Create IBM Watson and device settings | USN-7 | To create the IBM Watson IOT platform and Intergrate the microcontroller with it to send sensed data to cloud | 3 | High | Kiruthika.S Kiruba.T Madhumitha.S Monika.T Dhivya.R |
| Sprint-3 | Create node red service | USN-8 | To create a node red service to integrate the IBM Watson along with Web UI | 1 | Low | Kiruthika.S Madhumitha.S |
| Sprint-3 | Create Web UI | USN-9 | To create Web UI to access the data from cloud And display all parameters | 3 | High | Kiruthika.S Kiruba.T Madhumitha.S Monika.T Dhivya.R |
| Sprint-3 | To develop a python code | USN-10 | Create python code to sense the physical quantity and store data | 2 | Medium | Kiruba.T Madhumitha.S Monika.T Dhivya.R |
| Sprint-4 | Publish data to cloud | USN-11 | Publish data that is sensed by the microcontroller to the cloud | 3 | High | Kiruthika.S Kiruba.T Madhumitha.S Monika.T Dhivya.R |
| Sprint-4 | Fast SMS service | USN-12 | Use fast SMS to send alert message once the parameters like ph , turbidity and temperature goes beyond the threshold | 2 | Medium | Madhumitha.S Monika.T Dhivya.R |
| Sprint-4 | Testing | USN-13 | Testing of project and final deliverables | 3 | High | Kiruba.T Madhumitha.S Monika.T Dhivya.R |

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 | 10 | 6 Days | 24 Oct 2022 | 29 Oct 2022 | 10 | 29 Oct 2022 |
| Sprint-2 | 10 | 6 Days | 31 Oct 2022 | 05 Nov 2022 | 10 | 05 Nov 2022 |
| Sprint-3 | 10 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 10 | 12 Nov 2022 |
| Sprint-4 | 10 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 10 | 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)

$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$

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 methodologies suchas Scrum. However, burn down charts can be applied to any project containing measurable progress over time

