

## Project Planning Phase

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

|               |   |
|---------------|---|
| Date          | 24 October 2022   |
| Team ID       | PNT2022TMID43938  |
| Project Name  | Predicting the energy output of wind turbine based on weather conditions. |
| 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. | 5            | High     | Janani T      |
| Sprint-1 |                               | USN-2             | As a user, I will receive confirmation email once I have registered for the application                   | 5            | High     | Balachandra M |
| Sprint-1 |                               | USN-3             | As a user, I can register for the application through Phone number  | 2            | Low      | Latha G       |
| Sprint-1 |                               | USN-4             | As a user, I can register for the application through Gmail   | 3            | Medium   | Jothimani s   |

| <b>Sprint</b> | <b>Functional Requirement (Epic)</b> | <b>User Story Number</b> | <b>User Story / Task</b>   | <b>Story Points</b> | <b>Priority</b> | <b>Team Members</b> |
|---------------|--------------------------------------|--------------------------|--|---------------------|-----------------|---------------------|
| Sprint-1      | Login(User)                          | USN-5                    | As a user, I can log into the application by entering email & password.                                  | 10                  | High            | Janani T            |
| Sprint-2      | Dashboard                            | USN-6                    | Once I have logged in, I can see my dashboard.   | 7                   | Medium          | Latha G             |
| Sprint-2      | Web access                           | USN-7                    | As a customer I can access the website to predict the turbine power.                                     | 7                   | High            | Jothimani S         |
| Sprint-2      | Prediction                           | USN=8                    | As a customer when I enter the weather details the website should predict the approximate turbine power. | 8                   | High            | Balachandra M       |
| Sprint-3      | Analysis                             | USN-9                    | As a customer, I wish to store my predictions and make analysis.   | 5                   | Medium          | Vishnu prasath      |

| Sprint   | Functional Requirement (Epic) | User Story Number | User Story / Task   | Story Points | Priority | Team Members  |
|----------|-------------------------------|-------------------|---|--------------|----------|---------------|
| Sprint-4 | Database Access               | USN-11            | A Administrator, I should maintain the website. And update the website regularly. | 20           | Low      | Vishu prasath |

#### 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   | 6 Nov 2022        | 11 Nov 2022               | 20  | 11 Nov 2022                  |
| Sprint-2 | 20                 | 6 Days   | 10 Nov 2022       | 13 Nov 2022               | 20  | 13 Nov 2022                  |
| Sprint-3 | 20                 | 6 Days   | 17 Nov 2022       | 22 Nov 2022               | 20  | 22 Nov 2022                  |
| Sprint-4 | 20                 | 6 Days   | 24 Nov 2022       | 30 Nov 2022               | 20  | 30 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)

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

### 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 such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

