

## Project Planning Phase

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

|               |   |
|---------------|---|
| Date          | 23 October 2022   |
| Team ID       | PNT2022TMID40422  |
| Project Name  | Natural disasters intensity analysis and classification using artificial intelligence |
| Maximum Marks | 8 Marks   |

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

| 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 that.   | 2            | Low      | Thendral        |
| Sprint-1 | Registration                    | USN-2             | As a user, I will receive confirmation email once I have registered for the application.             | 3            | High     | Deepa           |
| Sprint-1 | Login                           | USN-3             | As a user, I adapt to logging into the system with credentials.                                      | 2            | Low      | Sowmiya         |
| Sprint-1 | Designation of Region           | USN-4             | As a user, I can collect the dataset and select the region of interest to be monitored and analysed. | 5            | Medium   | Manju           |
| Sprint-2 | Analysis of required phenomenon | USN-5             | As a user, I can regulate certain factors influencing the action and report on past event analysis.  | 4            | High     | Sowmiya, Manju  |
| Sprint-2 | Algorithm selection             | USN-6             | As a user, I can choose the required algorithm for specific analysis.                                | 4            | Medium   | Thendral, Deepa |
| Sprint-2 | Training and Testing            | USN-7             | As a user, I can train and test the model using the algorithm.                                       | 4            | High     | Manju, Thendral |
| Sprint-3 | Detection and analysis of data  | USN-8             | As a user, I can detect and visualise the data effectively.  | 4            | High     | Deepa , Sowmiya |

|          |                   |        |   |   |      |                                 |
|----------|-------------------|--------|---|---|------|---------------------------------|
| Sprint-3 | Model building    | USN-9  | As a user, I can build with the web application.                    | 8 | High | Thendral, Deepa, Manju, Sowmiya |
| Sprint-4 | Report generation | USN-10 | As a user, I can generate detailed report on product data analysis. | 4 | High | Manju, Deepa                    |
| Sprint-4 | Model deployment  | USN-11 | As an administrator, I can maintain third-party services.           | 8 | High | Sowmiya, Thendral               |

#### 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)

$$\text{Average velocity} = \text{Sprint duration} / \text{velocity} = 20/6 = 3$$

**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.