

Project Planning Phase

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

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task Description | Story Points | Priority | Team Members |
|----------|---------------------------------|-------------------|---|--------------|----------|-----------------------|
| Sprint-1 | Data collection and integration | USN-1 | Gather relevant environmental data, including temperature, humidity, soil moisture, and light levels | 7 | High | Krupa Raju. k |
| | Data Preparation | USN-2 | Cleans the collected data for analysis. | 8 | High | Krupa Raju. k |
| Sprint-2 | Data Analysis | USN-3 | Utilize Power BI's analytical tools to explore relationships between environmental factors and plant growth stages. | 5 | Low | Muralidhar Yadav M. V |
| | Visualization Development | USN-4 | Create interactive visualization for key metrics. | 6 | Medium | Durga prasadu T |
| | Dashboard Design | USN-5 | Design user-friendly interfaces that allows stakeholders to easily access and interpret data. | 8 | High | Gowtham Raju. S |

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|---------------|--|
| Date | 15 February 2025 |
| Team ID | PNT2025TMID07046 |
| Project Name | Prediction plant growth stages with environment and management data using power BI |
| Maximum Marks | 5 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-2 | Data Analysis | USN-3 | Utilize Power BI's analytical tools to explore relationships between environmental factors and plant growth stages. | 5 | Low | Krupa raju. A |
| | Visualization Development | USN-4 | Create interactive visualization for key metrics. | 6 | Medium | Muralidar yadav. M.V |
| | Dashboard Design | USN-5 | Design user-friendly interfaces that allows stakeholders to easily access and interpret data. | 8 | High | Durga prasdau. T |

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

| Sprint | Total Story Points | Duration (Days) | Start Date | End Date (Planned) | Story Points Completed (Planned) | Release Date (Actual) |
|---------|--------------------|-----------------|------------|--------------------|----------------------------------|-----------------------|
| Sprint1 | 20 | 6 | 2 feb 2025 | 7 feb 2025 | 20 | 29 Oct 2022 |

| | | | | | | |
|---------|----|---|-------------|-------------|-----|-------------|
| Sprint1 | 20 | 6 | 7 feb 2025 | 12 feb 2025 | 20 | 05 Nov 2022 |
| Sprint2 | 20 | 6 | 12 feb 2025 | 17 feb 2025 | TBD | TBD |
| Sprint2 | 20 | 6 | 17 feb 2025 | 22 feb 2025 | TBD | TBD |

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 burndown chart illustrates:

- X-axis: Sprint duration (time in days).
- Y-axis: Remaining story points.
- It starts with 20 story points at day 0 and decreases daily based on completed points.