

Project Planning Phase

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

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| Date | 22 February 2026 |
| Team ID | LTVIP2026TMIDS41603 |
| Project Name | Exploratory Analysis of Rainfall Data in India for Agriculture |
| 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 No | User Story / Task | Story Points | Priority | Team Members |
|---------|-------------------------------|---------------|---|--------------|----------|-------------------|
| Sprint1 | User Registration | USN-1 | As a user, I can register in the rainfall analysis system using email & password to access insights | 2 | High | Frontend, Backend |
| Sprint1 | User Confirmation | USN-2 | As a user, I receive email confirmation after registration | 1 | High | Backend |
| Sprint2 | Social Registration | USN-3 | As a user, I can register using social login for quick access | 2 | Low | Backend |
| Sprint1 | User Login | USN-4 | As a user, I can login to access rainfall dashboards | 1 | High | Backend |

| Sprint1 | Dashboard | USN-5 | As a farmer/researcher, I can view rainfall visualization dashboard | 3 | High | Frontend |
|---------|-------------------------------|---------------|---|--------------|----------|-------------------|
| Sprint1 | Data Input | USN-6 | As a user, I can upload rainfall datasets for analysis | 3 | High | Frontend, Backend |
| Sprint1 | Data Preprocessing | USN-7 | As a system, rainfall data is cleaned and prepared for ML models | 4 | High | ML Engineer |
| Sprint1 | ML Prediction Engine | USN-8 | As a user, I can analyze rainfall trends using ML models | 5 | High | ML Engineer |
| Sprint | Functional Requirement (Epic) | User Story No | User Story / Task | Story Points | Priority | Team Members |
| Sprint2 | Feature Analysis | USN-9 | As a user, I can view key rainfall pattern insights | 3 | Medium | ML Engineer |
| Sprint2 | Reports | USN-10 | As a policymaker, I can download rainfall analysis reports | 3 | Medium | Frontend |
| Sprint2 | History | USN-11 | As a user, I can view previous rainfall analyses | 2 | Medium | Backend |
| Sprint1 | Admin User Management | USN-12 | Admin can manage system users | 2 | High | Backend |

| | | | | | | |
|---------|--------------------|--------|--|---|--------|-------------|
| Sprint1 | Dataset Management | USN-13 | Admin uploads rainfall datasets for training | 3 | High | ML Engineer |
| Sprint1 | Model Training | USN-14 | Admin trains ML models for better accuracy | 5 | High | ML Engineer |
| Sprint2 | System Reports | USN-15 | Admin views system analytics and usage | 2 | Medium | Backend |

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

| Sprint | Total Story Points | Duration | Start Date | End Date (Planned) | Completed | Release Date |
|----------|--------------------|----------|------------|--------------------|-----------|--------------|
| Sprint-1 | 32 | 6 Days | 1 Feb 2025 | 7 Feb 2025 | 32 | 7 Feb 2025 |
| Sprint-2 | 15 | 6 Days | 8 Feb 2025 | 14 Feb 2025 | 15 | 14 Feb 2025 |

Velocity:

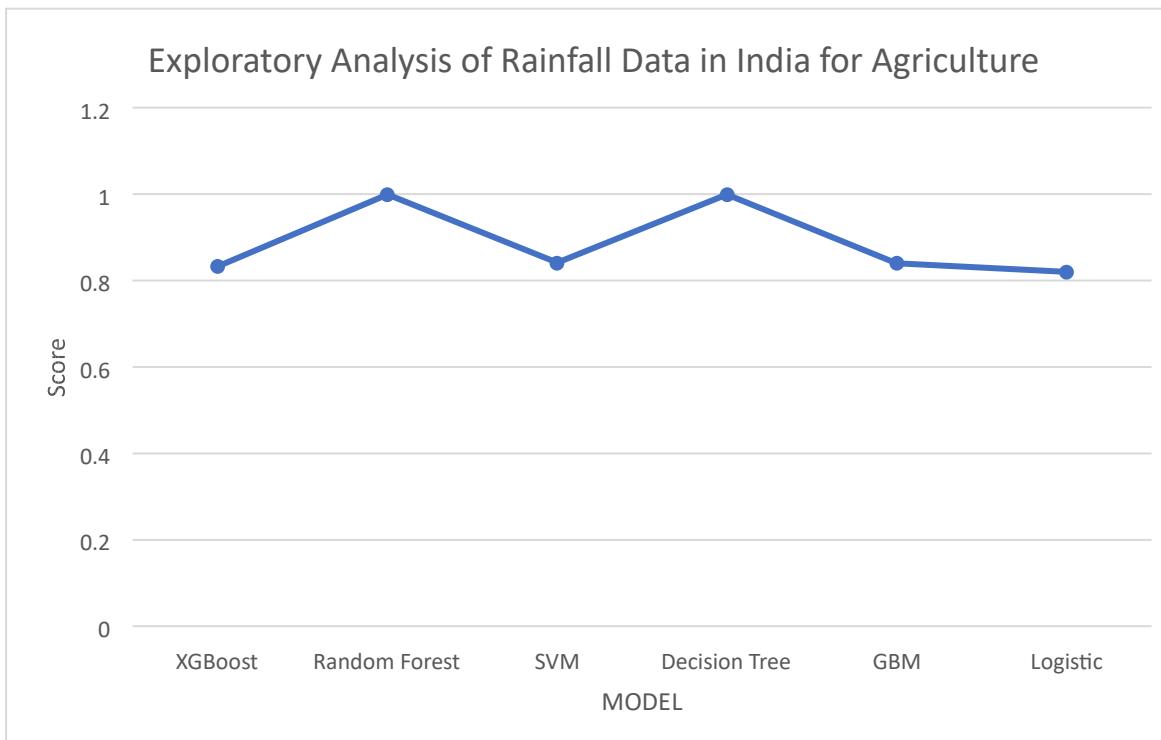
Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \text{Total Story Points} / \text{Sprint Duration}$$

$$AV = 32 / 6 \approx 5.3 \text{ story points per day}$$

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



<https://www.visual-paradigm.com/scrum/scrum-burndown-chart/> <https://www.atlassian.com/agile/tutorials/burndown-charts>