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

Date	08 February 2026
Team ID	LTVIP2026TMIDS56565
Project Name	Rising Waters: A Machine Learning Approach to Flood Prediction
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-1	Data Preparation	USN-1	As a developer, I can load the Kaggle dataset and handle missing values to ensure data quality.	3	High	Koteswarararao Vulli
Sprint-1	Preprocessing	USN-2	As a developer, I can apply Label Encoding and StandardScaler to prepare features for the model.	5	High	Pallela Shanmukha Srinadh
Sprint-2	Model Building	USN-3	As a developer, I can train and evaluate the Random Forest model to achieve at least 88% accuracy.	8	High	Pallela Shanmukha Srinadh
Sprint-2	Model Persistence	USN-4	As a developer, I can save the model and encoders as .pkl files for integration.	2	Medium	Shaik Abdul Vahid
Sprint-3	Web Application	USN-5	As a user, I can enter environmental data into a web form and see a "DANGER" or "SAFE" result.	5	High	Karthik Sai Vyasarouthu
Sprint-3	UI/UX Design	USN-6	As a user, I want a responsive dashboard styled with Bootstrap 5 for easy mobile access.	3	Medium	Pallela Shanmukha Srinadh

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	12	10 Days	28 Jan 2026	06 Feb 2026	12	06 Feb 2026
Sprint-2	15	10 Days	08 Feb 2026	17 Feb 2026	15	17 Feb 2026
Sprint-3	12	10 Days	19 Feb 2026	28 Feb 2026	12	28 Feb 2026

Velocity Calculation:

Your team's performance across these sprints determines the speed of delivery:

- **Total Story Points**: 39 points (calculated from your project backlog).
- **Number of Sprints**: 3.
- **Average Velocity (AV)**: 13 Story Points per Sprint (39/3).
- **Daily Velocity**: 1.3 Story Points per Day (assuming 10-day sprints).

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

Reference:

https://www.atlassian.com/agile/project-management

https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software

https://www.atlassian.com/agile/tutorials/epics

https://www.atlassian.com/agile/tutorials/sprints

https://www.atlassian.com/agile/project-management/estimation

https://www.atlassian.com/agile/tutorials/burndown-charts