

## Project Planning Phase

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

Date	15th February 2026
Team ID	LTVIP2026TMIDS62246
Project Name	Weather-Based Prediction of Wind Turbine Energy Output: A Next-Generation Approach to Renewable Energy Management
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 Collection & Preprocessing	USN-1	Import and clean wind turbine dataset	3	High	TM-1
Sprint-1	Data Collection & Preprocessing	USN-1	Handle missing values and rename columns	2	High	TM-2
Sprint-1	Data Preparation	USN-2	Perform train-test split (80/20)	2	High	TM-1
Sprint-2	Model Development	USN-3	Implement Random Forest Regressor	5	High	TM-2
Sprint-2	Model Evaluation	USN-4	Calculate R <sup>2</sup> , MAE, MSE, RMSE	3	High	TM-1
Sprint-2	Visualization	USN-5	Generate Actual vs Predicted scatter plot	2	Medium	TM-3
Sprint-3	Web Application Development	USN-6	Develop Flask backend for prediction	5	High	TM-1

**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	5	8 Days	27 Jan 2026	3 Feb 2026	5	3 Feb 2026
Sprint-2	10	8 Days	4 Feb 2026	11 Feb 2026	10	11 Feb 2026
Sprint-3	8	7 Days	12 Feb 2026	18 Feb 2026	8	18 Feb 2026