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

Date	15 February 2025
Team ID	LTVIP2026TMIDS41276
Project Name	online payments fraud detection using machine learning
Maximum Marks	5 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	Project Setup	USN-1	Set up Flask project structure and environment	3	High	Backend Dev
Sprint-1	Model Integration	USN-2	Load model.pkl using joblib	3	High	ML Engineer
Sprint-1	Encoder Integration	USN-3	Load encoder.pkl and encode transaction type	2	High	ML Engineer
Sprint-1	UI Development	USN-4	Design index.html with transaction input form	5	High	Frontend Dev
Sprint-1	Prediction API	USN-5	Create /predict route to process inputs	4	High	Backend Dev
Sprint-1	Result Display	USN-6	Display fraud / non-fraud result on UI	3	High	Frontend Dev
Sprint-2	Input Validation	USN-7	Validate numeric inputs and handle errors	3	High	Backend Dev
Sprint-2	Error Handling	USN-8	Handle model loading & server errors	2	Medium	Backend Dev
Sprint-2	UI Enhancement	USN-9	Improve UI styling and responsiveness	4	Medium	Frontend Dev
Sprint-2	Testing	USN-10	Perform unit testing for prediction module	4	High	QA
Sprint-3	Logging	USN-11	Store prediction logs for monitoring	5	Medium	Backend Dev

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-3	Performance Optimization	USN-12	Optimize prediction response time	4	Medium	ML Engineer
Sprint-3	Deployment	USN-13	Deploy project on cloud (Render/AWS)	6	High	DevOps
Sprint-4	Model Improvement	USN-14	Retrain model with improved accuracy	6	Medium	ML Engineer
Sprint-4	Documentation	USN-15	Prepare project documentation	4	High	Team
Sprint-4	Final Testing	USN-16	End-to-end system testing	5	High	QA

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

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed	Sprint Release Date (Actual)
Sprint-1	20	6 Days	01 Mar 2026	06 Mar 2026	20	06 Mar 2026
Sprint-2	18	6 Days	08 Mar 2026	13 Mar 2026	18	13 Mar 2026
Sprint-3	15	6 Days	15 Mar 2026	20 Mar 2026	14	21 Mar 2026
Sprint-4	15	6 Days	22 Mar 2026	27 Mar 2026	15	27 Mar 2026

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)

$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$

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