

## Project Planning Phase

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

|               |  |
|---------------|--|
| Date          | 10 February 2026                                       |
| Team ID       | LTVIP2026TMIDS90948                                    |
| Project Name  | Online Payments Fraud Detection using Machine Learning |
| 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 Engineering              | USN-1             | As a developer, I want to preprocess the Kaggle dataset and handle class imbalance using SMOTE..        | 5            | High     | N.P.N.V.Sai  |
| Sprint-1 | Model Training                | USN-2             | As a developer, I want to train and compare XGBoost and Random Forest models based on F1-Score          | 8            | High     | N.P.N.V.Sai  |
| Sprint-2 | Backend Dev                   | USN-3             | As a dev, I want to create a Flask API that loads the .pkl model and computes "Error Balance" features. | 5            | High     | N.Anantha    |
| Sprint-2 | Frontend Dev                  | USN-4             | As a user, I want a web form to input transaction details and see a color-coded risk report.            | 3            | Medium   | P.Harsha     |
| Sprint-3 | Benchmarking                  | USN-5             | As a developer, I want to integrate and test ExtraTrees, Decision Tree, and SVM for final benchmarking. | 5            | Medium   | M.Nani       |
| Sprint-3 | Deployment                    | USN-6             | As an admin, I want the system deployed on IBM Cloud for global accessibility.                          | 2            | Medium   | P.Harsha     |
|          |                               |                   |   |              |          |              |
|          |                               |                   |   |              |          |              |

**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 | 20                 | 6 Days   | 31 Jan 2026       | 05 Feb 2026               | 20  | 05 Feb 2026                  |
| Sprint-2 | 20                 | 6 Days   | 07 Feb 2026       | 12 Feb 2026               | 20  | 12 Feb 2026                  |
| Sprint-3 | 20                 | 6 Days   | 13 Feb 2026       | 18 Feb 2026               | 20  | 18 Feb 2026                  |
| Sprint-4 | 20                 | 6 Days   | 19 Feb 2026       | 24 Feb 2026               | 20  | 24 Feb 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)

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

### **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>

