**Project Planning Phase**

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

|  |  |
| --- | --- |
| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID59839 |
| Project Name | Pattern Sense: Classifying Fabric Patterns using Deep 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 | Dataset Setup and Preprocessing | USN-1 | As a developer, I want to collect, clean, and preprocess the dataset to prepare for training. | 3 | High | Sree Vidya Lakshmi, Madhulatha |
| Sprint-1 | Transfer Learning Implementation | USN-2 | As a model trainer, I want to apply ResNet50 and custom CNNs to train on pattern data. | 3 | High | Sree Vidya Lakshmi, Suhaib Khan |
| Sprint-2 | Model Evaluation & Tuning | USN-3 | As a developer, I want to improve accuracy through augmentation and parameter tuning. | 3 | High | Sree Vidya Lakshmi, Arif Hussain |
| Sprint-2 | Model Prediction System | USN-4 | As a user, I want to upload a pattern image and get predictions with confidence score. | 2 | High | Suhaib Khan, Arif Hussain, Madhulatha |
| Sprint-3 | Web App Integration using Flask | |  | | --- | | USN-5 |  |  | | --- | |  | | |  | | --- | | As a user, I want to interact with the model via a simple Flask web interface. |  |  | | --- | |  | | 3 | Medium | Suhaib Khan, Madhulatha |
| |  | | --- | | Sprint-3 |  |  | | --- | |  | | |  | | --- | | Image Enhancement for Better Input Quality |  |  | | --- | |  | | |  | | --- | | USN-6 |  |  | | --- | |  | | |  | | --- | | As a user, I want to enhance image quality before prediction for better results. |  |  | | --- | |  | | 2 | Low | Sree Vidya Lakshmi, Arif Hussain |

**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 | 9-Jun-2025 | 14-Jun-2025 | 20 | 9-Jun-2025 |
| Sprint-2 | 20 | 6 Days | 16-Jun-2025 | 21-Jun-2025 | 20 | 16-Jun-2025 |
| Sprint-3 | 20 | 6 Days | 23-Jun-2025 | 28-Jun-2025 | 20 | 25-Jun-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)



**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](https://www.visual-paradigm.com/scrum/what-is-agile-software-development/) methodologies such as [Scrum](https://www.visual-paradigm.com/scrum/scrum-in-3-minutes/). However, burn down charts can be applied to any project containing measurable progress over time.

it shows:

* **X-axis** → Time (Sprint days)
* **Y-axis** → Story points (Effort remaining)
* The **ideal line** shows how progress *should* go.
* The **actual line** shows your *real progress*.

[**https://www.visual-paradigm.com/scrum/scrum-burndown-chart/**](https://www.visual-paradigm.com/scrum/scrum-burndown-chart/)

[**https://www.atlassian.com/agile/tutorials/burndown-charts**](https://www.atlassian.com/agile/tutorials/burndown-charts)

**Reference:**

[**https://www.atlassian.com/agile/project-management**](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/how-to-do-scrum-with-jira-software)

[**https://www.atlassian.com/agile/tutorials/epics**](https://www.atlassian.com/agile/tutorials/epics)

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[**https://www.atlassian.com/agile/project-management/estimation**](https://www.atlassian.com/agile/project-management/estimation)

[**https://www.atlassian.com/agile/tutorials/burndown-charts**](https://www.atlassian.com/agile/tutorials/burndown-charts)