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	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
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)

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

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.

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.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