Project Planning Phase

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

Date	28/01/2025
Team ID	LTVIP2026TMIDS83275
Project Name	Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy
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	Dataset Preparation	USN-1	As a developer, I will collect and organize the Kaggle DR dataset for training.	5	High	ML Dev
Sprint-1		USN-2	As a developer, I will preprocess images (resize, normalize).	5	High	ML Dev
Sprint-1		USN-3	As a developer, I will split dataset into train & test sets.	3	High	ML Dev
Sprint-1		USN-4	As a developer, I will implement data augmentation.	2	Medium	ML Dev
Sprint-1	Model Development	USN-5	As a developer, I will design CNN architecture.	5	High	ML Dev

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-2	Model Training	USN-6	As a developer, I will train the CNN model.	8	High	ML Dev
Sprint-2		USN-7	As a developer, I will evaluate model accuracy & metrics.	5	High	ML Dev
Sprint-2		USN-8	As a developer, I will tune hyperparameters.	7	Medium	ML Dev
Sprint-3	Web Integration	USN-9	As a user, I can upload fundus image through web UI.	5	High	Full Stack Dev
Sprint-3		USN-10	As a user, I can view prediction result on UI.	5	High	Full Stack Dev
Sprint-3		USN-11	As a developer, I will integrate trained model with Flask.	8	High	ML + Backend Dev
Sprint-3		USN-12	As a developer, I will test end-to-end prediction flow.	2	High	QA
Sprint-4	Testing & Deployment	USN-13	As a developer, I will deploy application locally/cloud.	6	Medium	DevOps
Sprint-4		USN-14	As a developer, I will perform system testing & debugging.	6	High	QA
Sprint-4		USN-15	As a team, we will prepare documentation & PPT.	8	High	All

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	5 Days	31 Jan 2026	04 Feb 2026	20	04 Feb 2026
Sprint-2	20	6 Days	05 Feb 2026	11 Feb 2026	20	10 Feb 2026
Sprint-3	20	6 Days	12 Feb 2026	18 Feb 2026	18	17 Feb 2026
Sprint-4	20	2 Days	19 Feb 2026	20 Feb 2026	20	20 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)

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