Project Planning Phase

Project Planning (Product Backlog, Sprint Planning, Stories, Story Points)

Date: 28 June 2025
Team ID: LTVIP2025TMID41166
Project Name: *Revolutionizing Liver Care: Predicting Liver Cirrhosis Using Advanced Machine Learning Techniques* **Maximum**
Marks: 5 Marks

Product Backlog, Sprint Schedule, and Estimation:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint1	Data Collection	USN-1	As a data engineer, I can collect clinical liver data from a public source (UCI Repository).	2	High	Muddala Vasu, Shaik Abdul Baseed
Sprint1	Data Loading	USN-2	As a developer, I can load the data into a pandas DataFrame.	1	High	Rohi Jacinth
Sprint1	Data Preprocessing	USN-3	As a developer, I can handle missing and categorical values in the dataset.	3	Medium	K Gnaneswar Reddy

Sprint2	Model Building	USN-4	As a data scientist, I can train multiple ML models (RF, XGBoost, etc.) and choose the best one.	5	High	Vemuru Pavan Kumar, K Gnaneswar Reddy
Sprint2	Model Evaluation	USN-5	As a data scientist, I can evaluate model performance using accuracy, F1score, and AUC.	3	High	Rohi Jacinth, Muddala Vasu
Sprint2	Deployment	USN-6	As a developer, I can build an HTML front end and deploy the model using Flask.	5	Medium	Shaik Abdul Baseed
Sprint2	User Interface Testing	USN-7	As a tester, I can test the form input and prediction display logic.	2	Medium	Muddala Vasu

Sprint3	Dashboard	USN-8	As a BI analyst, I can design a dashboard to visualize predictions and key statistics.	3	Low	Vemuru Pavan Kumar

Project Tracker, Velocity & Burndown Chart :

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed	Sprint Release Date (Actual)
Sprint1	6	5 Days	05 June 2025	09 June 2025	6	09 June 2025
Sprint2	15	5 Days	10 June 2025	14 June 2025	15	14 June 2025
Sprint3	3	5 Days	15 June 2025	19 June 2025	3	19 June 2025

Velocity Calculation:

- **Total Story Points Completed:** 6 (Sprint-1) + 15 (Sprint-2) + 3 (Sprint-3) = **24**
- **Number of Sprints:** 3
- **Velocity:**

Velocity=243=8 Story Points per Sprint\text{Velocity} = \frac{24}{3} = 8 \text{ Story Points per Sprint}Velocity=324=8 Story Points per Sprint

Burndown Chart:

- **Initial Workload:** 24 Story Points
- **Chart Axis:**
  - X-Axis = Dates (5 June to 19 June 2025) ○
    Y-Axis = Remaining Story Points (24 → 0)

- Use tools like Visual Paradigm Burndown Chart for plotting