**Project Planning Phase**

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

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| --- | --- |
| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID59344 |
| Project Name | TrafficTelligence: Advanced Traffic Volume Estimation with Machine 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 | Project setup &  Infrastructure | USN-1 | Set up the development environment with all required tools, libraries, and frameworks to initiate the project smoothly. | 1 | High | Abdul Anees |
| Sprint-2 | Data collection | USN-2 | Gather a comprehensive dataset including date, time, holidays, and climatic conditions relevant to traffic volume prediction | 2 | High | Bethapudi Hema Jessy |
| Sprint-2 | data preprocessing | USN-3 | Preprocess the data by cleaning null values, removing outliers, and standardizing formats to prepare it for model training. | 3 | High | Amarthaluri Varshitha |
| Sprint-3 | model development | USN-4 | Explore, evaluate, and select the most suitable machine learning model architecture for the prediction task. | 4 | High | Annangi Harsha |
| Sprint-3 | Training | USN-5 | Train the selected model using the pre-processed dataset and monitor its performance on the validation set, applying necessary optimizations to improve accuracy. | 6 | medium | Amarthaluri Varshitha |
| Sprint-4 | model deployment & Integration | USN-6 | Deploy the trained model as a web API and integrate it into a user-friendly web interface that accepts inputs (date, time, holiday info) and returns traffic volume predictions. | 1 | medium | Annangi Harsha |
| Sprint-5 | Testing & quality assurance | USN-7 | Conduct thorough testing of the model and the web interface, address any issues or bugs, and fine-tune the model based on performance evaluations and user feedback. | 1 | medium | Abdul Anees |

**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** | 3(USN-1) | 1 Day | 18 June 2025 | 18 June 2025 | 3 | 18 June 2025 |
| **Sprint-2** | 9 (USN-2, USN-3) | 2 Days | 19 June 2025 | 20 June 2025 | 9 | 20 June 2025 |
| **Sprint-3** | 6 (USN-4, USN-5) | 2 Days | 21 June 2025 | 22 June 2025 | 6 | 22 June 2025 |
| **Sprint-4** | 1 (USN-6) | 2 Days | 23 June 2025 | 24 June 2025 | 1 | 24 June 2025 |
| **Sprint-5** | 1 (USN-7) | 1 Day | 25 June 2025 | 25 June 2025 | 1 | 25 June 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)



Average=3+9+6+1+1​=20/5​=4

**Burndown Chart:**

A graph on a screen

AI-generated content may be incorrect.

A screenshot of a computer

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A screenshot of a computer

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