# Project Planning Phase

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

|  |  |
| --- | --- |
| Date | 20th November 20, 2023 |
| Team ID | LTVIP2025TMID36229 |
| Project Name | TrafficTelligence : Advanced Traffic Volume Estimation with Machine Learning |
| Maximum Marks | 20 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 | Project setup &  Infrastructure | USN-1 | Set up the development environment with the required tools and  frameworks to start the project | 1 | High | Naga Sashank |
| Sprint-2 | Data collection | USN-2 | Gather a diverse dataset of Date, time, holidays and climatic conditions. | 2 | High | Naga Sashank |
| Sprint-2 | data preprocessing | USN-3 | Preprocess the collected dataset by removing outliers and null values etc. Explore and evaluate different deep learning architectures (e.g., Regressions) to select the most suitable model for the project. | 3 | High | Kiran Achari |
| Sprint-3 | model development | USN-4 | train the selected machine learning model using the preprocessed  dataset and monitor its performance on the validation set. | 4 | High | Kiran Achari |
| Sprint-3 | Training | USN-5 | The data set will be trained with suitable algorithms to improve the robustness and accuracy. | 6 | medium | Sunil Kumar |
| Sprint-4 | model deployment & Integration | USN-6 | deploy the trained machine learning model as a web service to make it accessible for users. Integrate the model's API into a user-friendly web interface for users to input variables such as date, time, holidays etc and receive predicted volume results. | 1 | medium | Sunil Kumar |
| Sprint-5 | Testing & quality assurance | USN-7 | conduct thorough testing of the model and web interface to identify and report any issues or bugs. fine-tune the model hyperparameters and optimize its performance based on user feedback and testing results. | 1 | medium | Gopi |

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 | 1 | 3 Days | 3 Nov 2023 | 6 Nov 2023 | 1 | 6 Nov 2023 |
| Sprint-2 | 5 | 2 Days | 6 Nov 2023 | 8 Nov 2023 | 5 | 8 Nov 2023 |
| Sprint-3 | 10 | 5 Days | 8 Nov 2023 | 13 Nov 2023 | 10 | 13 Nov 2023 |
| Sprint-4 | 1 | 5 Days | 13 Nov 2023 | 18 Nov 2023 | 1 | 20 Nov 2023 |
| Sprint-5 | 1 | 4 Days | 18 Nov 2023 | 22 Nov 2023 | 1 | 21 Nov 2023 |

Velocity:

Imagine we have a 29-days 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= 19/3.8 = 5

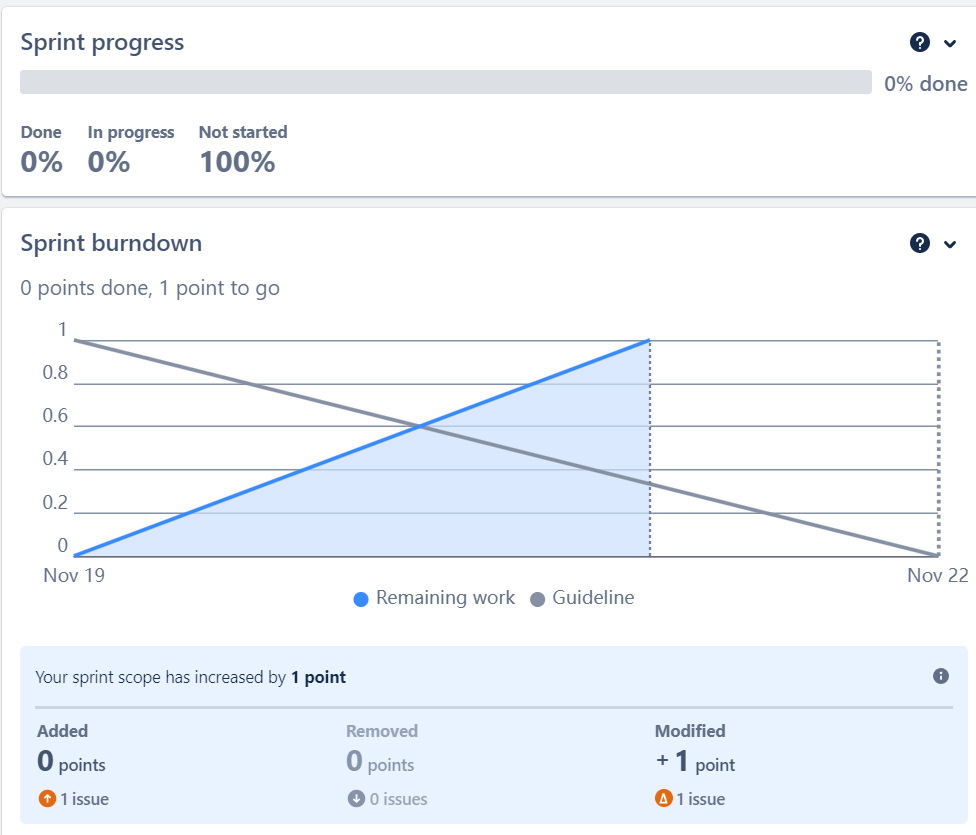
Burndown Chart:

A burndown chart is a graphical representation of work left to do versus time. It is often used in agile [software development](about:blank) methodologies such as [Scrum](about:blank). However, burn down charts can be applied to any project containing measurable progress over time.

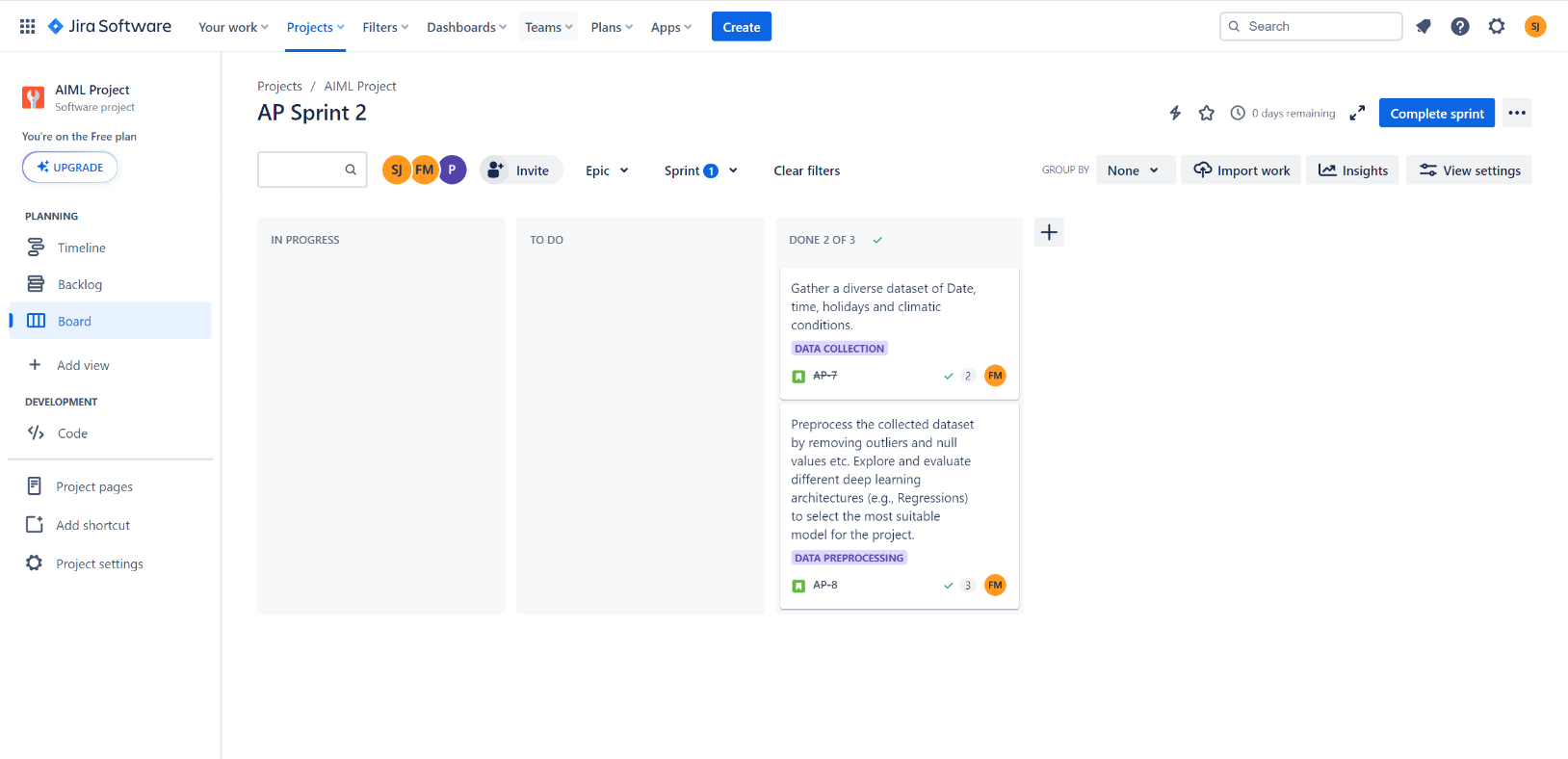
[https://www.visual-paradigm.com/scrum/scrum-burndown-chart/](about:blank) [https://www.atlassian.com/agile/tutorials/burndown-charts](about:blank)

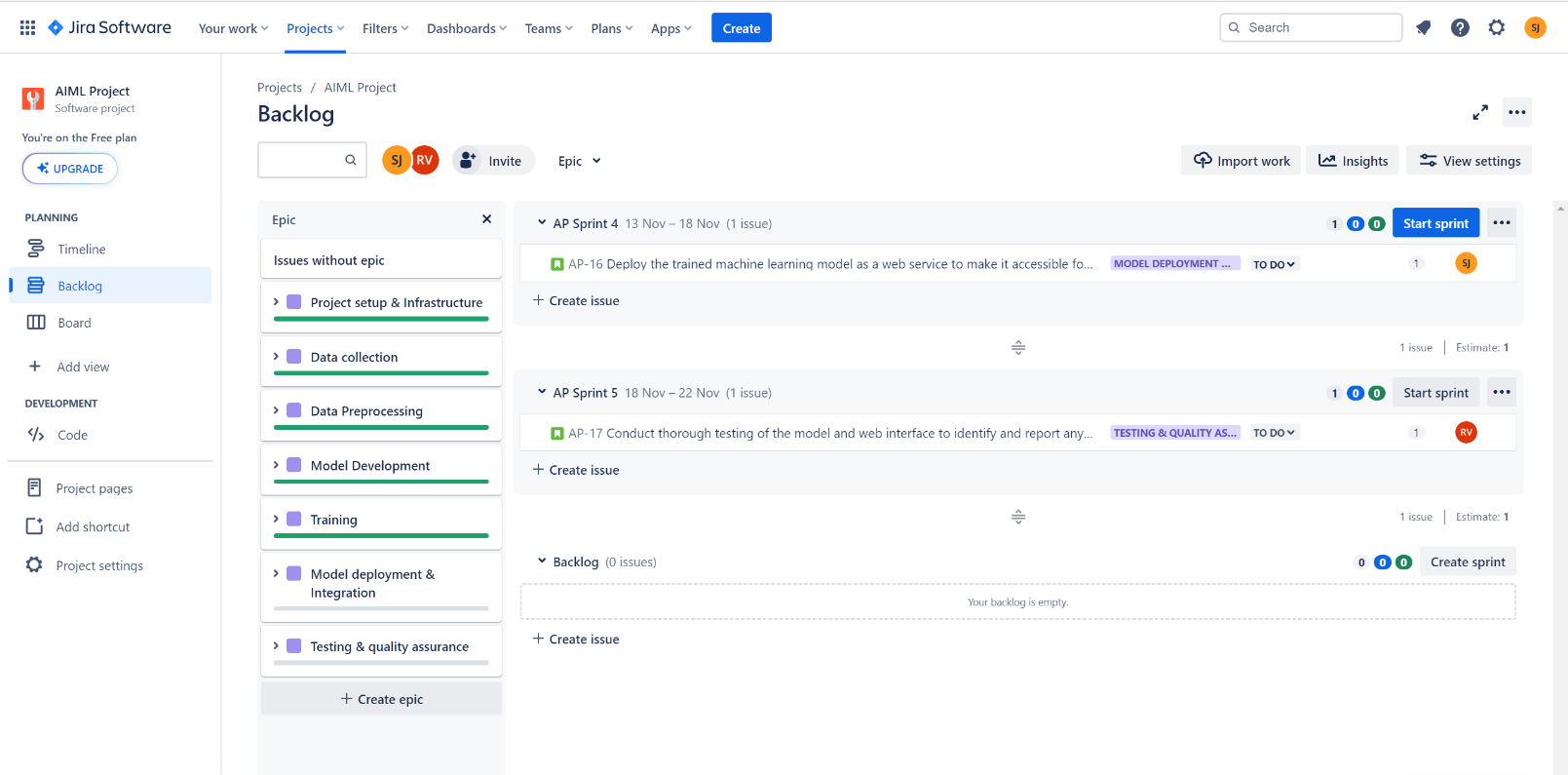
Reference:

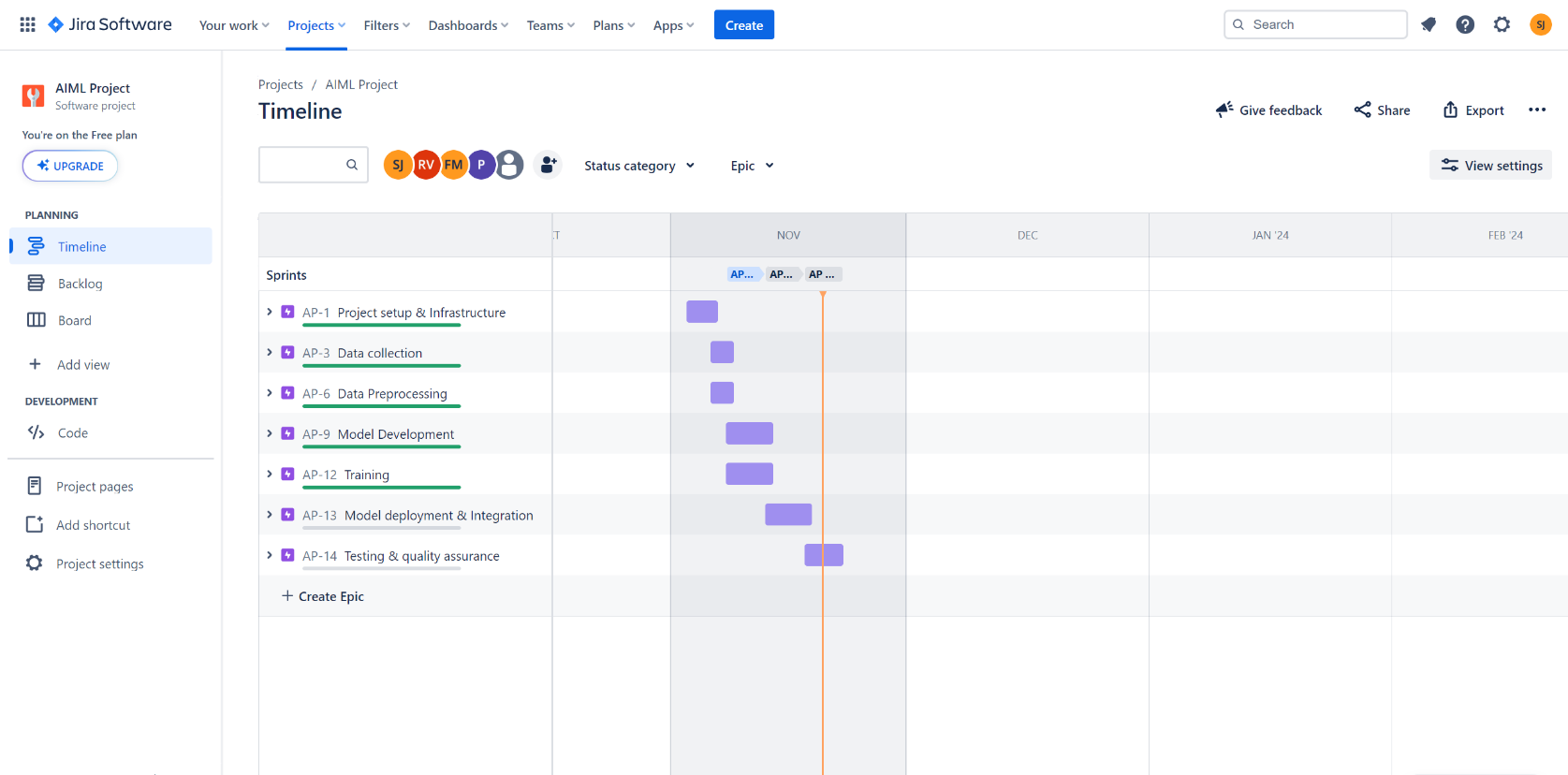
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Burndown Chart: For the 5th Sprint

Board section.

We have completed till sprint 2.

Backlog section

**Timeline**