Project Planning Phase

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

Date	30 October 2023
Team ID	2.11
Project Name	Malware Detection and Classification
Maximum Marks	8 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 Scope and Objectives	USN-1	Define the project's goals, such as building a machine learning model to detect malware in memory dumps.	2	High	Mohan Raj G
Sprint-2	Data Collection	USN-1	Collect the necessary resources, including datasets of memory dumps, Python libraries. Acquire a dataset of memory dumps that contains samples of both benign and malicious software.	1	High	Hiya Sharma
Sprint-3	Data Preprocessing	USN-1	Clean the dataset by handling missing values and outliers. Split the dataset into features (X) and the target variable (y).	2	Medium	Shashibhushan Das
Sprint-3	Feature Selection	USN-2	Select relevant features for model training	1	Low	Shashibhushan Das
Sprint-4	Model Selection	USN-1	Research and select appropriate machine learning algorithms for malware detection. Experiment with different models and choose the one that provides the best results.	2	Medium	Athibhan Pruthve
Sprint-4	Model Training	USN-2	Train the selected machine learning model on the training dataset.	1	High	Athibhan Pruthve

Sprint-4	Model Testing	USN-3	Test the model on the testing dataset to ensure it generalizes well to unseen data.	2	High	Athibhan Pruthve
Sprint-5	Visualize Results	USN-1	Create visualizations to present the results effectively, such as confusion matrices or ROC curves.	1	Medium	Hiya Sharma
Sprint-5	Documentation	USN-2	Create documentation that explains the project, including the dataset, methodology, and model details.	2	Medium	Hiya Sharma
Sprint-5	Project Completion	USN-3	Conclude the project, archive the code, documentation, and datasets, and ensure that it is well-organized for future reference.	2	Low	Athibhan Pruthve

Project Tracker, Velocity & Burndown Chart: (4 Marks)

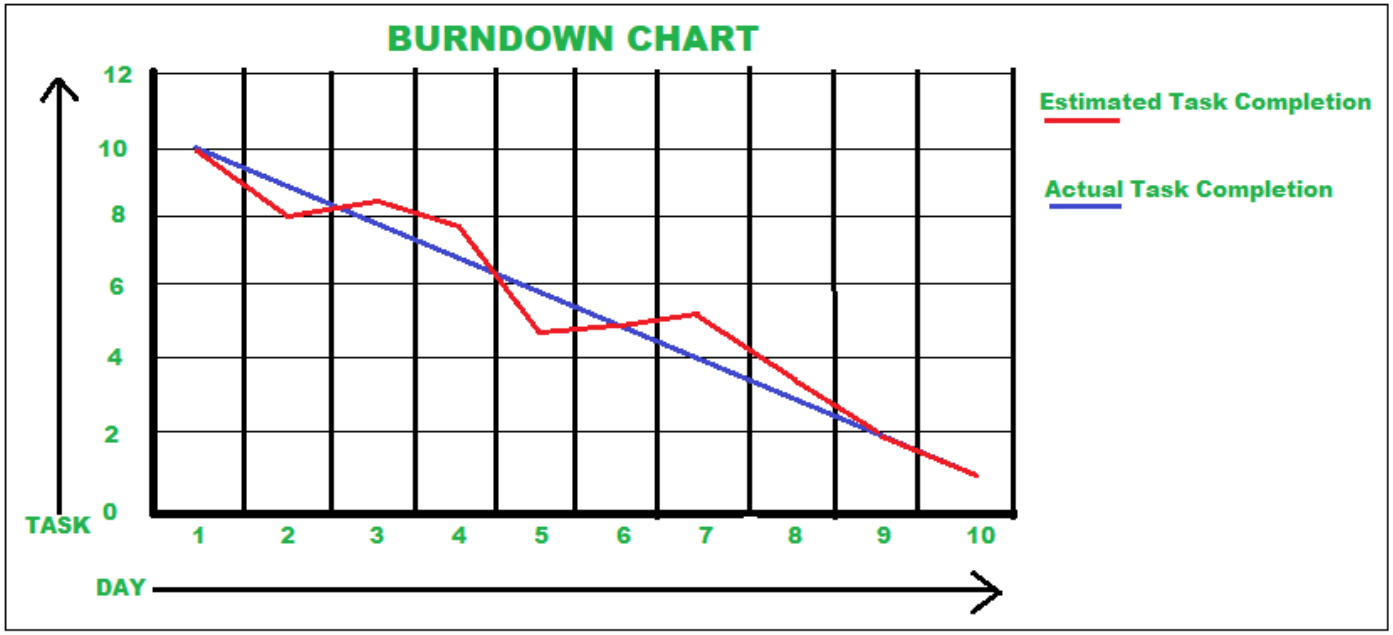
Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	3 Days	4 Oct 2023	7 Oct 2023	20	6 Oct 2023
Sprint-2	20	4 Days	7 Oct 2023	11 Oct 2023	20	10 Oct 2023
Sprint-3	20	5 Days	11 Oct 2023	16 Oct 2023	20	16 Oct 2023
Sprint-4	20	12 Days	16 Oct 2023	28 Oct 2023	20	26 Oct 2023
Sprint-5	20	2 Days	28 Oct 2023	30 Oct 2023	20	30 Oct 2023

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:



Board Section(as on October 27,2023):