Project Planning Phase

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

Date	27 October 2023
Team ID	2.3
Project Name	Malware Detection and Classification
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	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Environment Setup & Configuration	USN-1	Set up a robust development environment with the necessary tools and frameworks to initiate the project for malware detection and classification.	1	High	Raahul
		USN-2	Acquire a diverse dataset of malicious software samples, encompassing various types of malware such as viruses, trojans, and worms. This dataset is essential for training our machine learning model.	2	High	Tharun
Sprint-2	Data Preparation & Processing	USN-3	Preprocess the collected malware dataset by extracting pertinent features, applying appropriate labels, and dividing it into training and testing subsets.	2	High	Tharun
		USN-4	Investigate and assess a variety of machine learning and deep learning algorithms, including options such as Random Forest and Convolutional Neural Networks (CNNs). The objective is to determine the most suitable model for malware detection and classification.	4	High	Sanjay
Sprint-3	Model Training & Evaluation	USN-5	Train the chosen machine learning model with the preprocessed dataset, and closely monitor its performance on the testing set to ensure accuracy and effectiveness.	9	High	Stuti
Sprint-4	Model Deployment & User Interface Integration	USN-6	Deploy the trained model as a RESTful API or web service, making it accessible for malware detection purposes. Additionally, integrate the model's API into a user-friendly web interface, enabling users to upload files and obtain malware classification results.	1	Medium	Sanjay
Sprint-5	Testing, Quality Assurance & Optimization	USN-7	Conduct intensive testing of the model and web interface to uncover and report any issues, including false positives and false negatives. Further, fine-tune the model's hyperparameters and optimize its performance based on feedback and results.	1	Medium	Raahul

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	3 Days	01 OCT 2023	03 OCT 2023	20	03 OCT 2023
Sprint-2	6	9 Days	04 OCT 2023	12 OCT 2023		
Sprint-3	9	6 Days	13 OCT 2023	18 OCT 2023		
Sprint-4	1	4 Days	19 OCT 2023	22 OCT 2023		
Sprint-5	1	7 Days	23 OCT 2023	29 OCT 2023		

Velocity:

Imagine we have a 29-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)

$$AV=20/29=0.689$$

Burndown Chart:

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

https://www.visual-paradigm.com/scrum/scrum-burndown-chart/

https://www.atlassian.com/agile/tutorials/burndown-charts

Reference:

https://www.atlassian.com/agile/project-management

https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software

https://www.atlassian.com/agile/tutorials/epics

https://www.atlassian.com/agile/tutorials/sprints

https://www.atlassian.com/agile/project-management/estimation

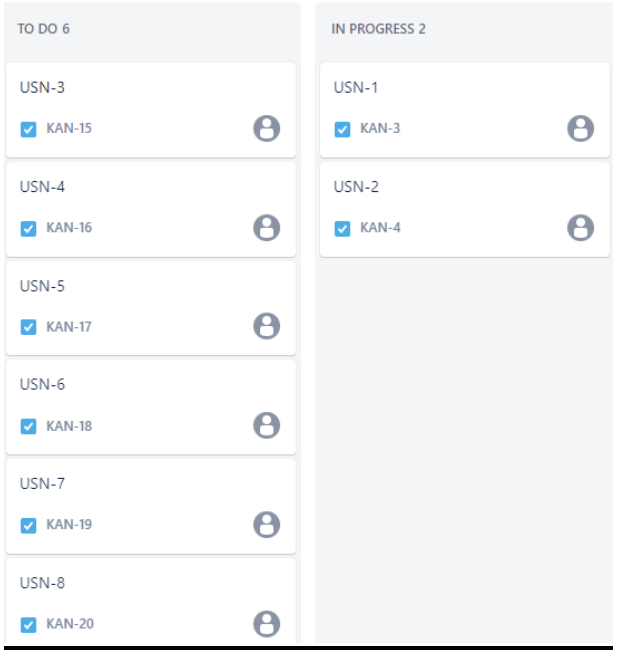
https://www.atlassian.com/agile/tutorials/burndown-charts

Sprint burndown

BETA

0 points done, 10 points to go

Tasks



Timeline