

Project Planning Phase

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

Date	20 October 2023
Team ID	Team - 592720
Project Name	Arming Against Violence - YOLO-Based Weapon Detection
Maximum Marks	8 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 the required tools and frameworks to start the Weapon Detection project.	2	High	Ashwin
Sprint-1	Data collection	USN-2	Gather a diverse dataset of images containing different types of different types of weapons (handgun, sniper, rifles, etc.) for training the Object Detection learning model.	2	High	Kaustubha

Sprint-2	Data Preprocessing	USN-3	Preprocess the collected dataset by resizing images, normalizing pixel values, and splitting it into training and validation sets.	2	High	Pranshu
Sprint-2	Development Environment	USN-4	Explore and evaluate different Object Detection Models (e.g., YOLOv8, YOLOv7, etc.) to select the most suitable model for Weapon Detection	3	High	Ashwin
Sprint-3	Model Development	USN-5	Train the selected deep learning model using the preprocessed dataset and monitor its performance on the validation set.	4	High	Ashwin
Sprint-3	Training	USN-6	Implement data augmentation techniques (e.g., rotation, flipping) to improve the model's robustness and accuracy.	6	Medium	Kaustubha
Sprint-4	Model Deployment & Integration	USN-7	Deploy the trained Object Detection Model as an API or web service to make it accessible for Weapon Detection. Integrate the model's API into a user-friendly web interface for users to upload images and receive Weapon Detection results.	2	Medium	Pranshu
Sprint-5	Testing & Quality Assurance	USN-8	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	Pranshu

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	4	3 Days	12 Oct 2023	15 Oct 2023	4	15 Oct 2023
Sprint-2	5	7 Days	16 Oct 2023	23 Oct 2023	5	23 Oct 2023
Sprint-3	10	7 Days	24 Oct 2023	31 Oct 2023	10	31 Oct 2023
Sprint-4	2	4 Days	1 Nov 2023	5 Nov 2023	2	5 Nov 2023
Sprint-5	2	3 Days	5 Nov 2023	8 Nov 2023	2	8 Nov 2023

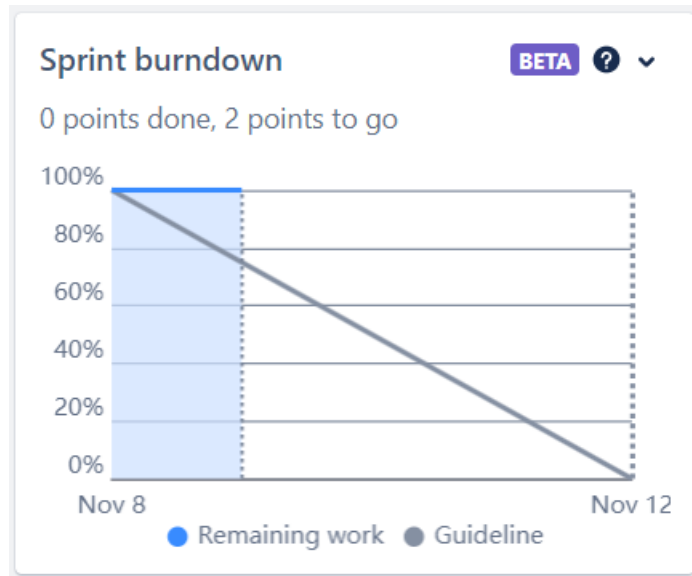
Velocity:

Imagine we have a 27-day sprint duration, and the velocity of the team is 23 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \frac{\textit{Sprint Duration}}{\textit{Velocity}} = \frac{27}{23} = 1.17$$

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.



Board Section:

We have completed Sprint – 1, hence, this is how it looks at the end of Sprint – 1.

The screenshot displays the Jira Software interface for a project named "My Scrum Project". The top navigation bar includes the Jira logo, "Jira Software", and various navigation links like "Your work", "Projects", "Filters", "Dashboards", "Teams", and "Apps". A search bar and user profile icon are also present.

The left sidebar shows the project's status as "Software project" and "You're on the Free plan". It includes an "UPGRADE" button and a list of navigation options: "PLANNING" (Timeline, Backlog, Board), "DEVELOPMENT" (Code), "Project pages", "Add shortcut", and "Project settings".

The main board area is titled "Sprint 1" and shows the progress of the sprint. The board is divided into columns: "TO DO", "IN PROGRESS", and "DONE 2". The "DONE 2" column contains two task cards:

- Task 1:** "Set up the development environment with the required tools and frameworks to start the Weapon Detection project." This task is categorized under "PROJECT SETUP & INFRASTRUCTURE" and is assigned to user "AP". It has a status of "SCRUM-2" and is marked as completed with a green checkmark.
- Task 2:** "Gather a diverse dataset of images containing different types of different types of weapons (handgun, sniper, rifles, etc.) for training the Object Detection learning model." This task is categorized under "DATA COLLECTION" and is assigned to user "KN". It has a status of "SCRUM-5" and is marked as completed with a green checkmark.

The board also includes a "GROUP BY" dropdown set to "None", and buttons for "Import work", "Insights", and "View settings". A "Quickstart" button is visible in the bottom right corner.

Timeline:

Jira Software

Your work

Projects

Filters

Dashboards

Teams

Apps

Create

Q Search

AP

My Scrum Project

Software project

You're on the Free plan

UPGRADE

PLANNING

Timeline

Backlog

Board

Add view

DEVELOPMENT

Code

Project pages

Add shortcut

Project settings

You're in a team-managed project

Learn more

Projects / My Scrum Project

Timeline

Q

APIMKN

Invite

Status category

Epic

Give feedback

Share

Export

View settings

	OCT	OCT	OCT	NOV	NOV	NOV
	1213141516171819202122232425262728293031	1213141516171819202122232425262728293031	1213141516171819202122232425262728293031	12345678910111213141516171819	12345678910111213141516171819	12345678910111213141516171819
Sprints	Sprint 1	Sprint 2	Sprint 3	Sprint 4	Sprint 5	
SERUM-1 Project setup & Infrastr... DONE						
SERUM-2 Set up the dev... DONE						
SERUM-4 Data collection DONE						
SERUM-5 Gather a diver... DONE						
SERUM-6 Data Preprocessing DONE						
SERUM-7 Preprocess th... DONE						
SERUM-8 Development Environ... DONE						
SERUM-9 Explore and e... DONE						
SERUM-10 Model Development DONE						
SERUM-11 Train the sele... DONE						
SERUM-12 Training DONE						
SERUM-13 Implement d... DONE						
SERUM-14 Model Deployment ... DONE						
SERUM-15 Deploy the tr... DONE						
SERUM-16 Testing & Quality Ass... DONE						
SERUM-17 Conduct thor... DONE						
+ Create Epic						

Quickstart