

Project Planning Phase

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

Date	18 November 2023
Team ID	
Project Name	ConstructGuard_YOLO-Based Saftey Gear Survilance
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 setup & Infrastructure	USN-1	Workers are provided a safety button that can be pressed to trigger emergency alert. Alert sent to safety manager with worker's location. Emergency response process is initiated immediately	1	High	Rakesh
Sprint-1	Development environment	USN-2	Gather a diverse dataset of images containing different types for training the deep learning model.	2	High	Kamal
Sprint-2	Data collection	USN-3	the use of technology has been positive, as it enables them to identify at very early stages and take necessary actions to improve construction sites	3	High	Siri
Sprint-2	data preprocessing	USN-4	Explore and evaluate different deep learning architectures (e.g., CNNs) to select the most suitable model for ConstructGuard_YOLO-Based Saftey Gear Survilance classification.	4	High	Nazziia
Sprint-3	model development	USN-5	train the selected deep learning model using the preprocessed dataset and monitor its performance on the validation set.	5	High	Rakesh
Sprint-3	Training	USN-6	Incorporate data augmentation methods, such as rotation and flipping, to enhance the model's resilience and boost its accuracy.	6	Medium	Kamal
Sprint-4	model deployment & Integration	USN-7	deploy the trained deep learning model as an API or web service to make it accessible for garbage classification. integrate the model's API into a user-friendly web interface for users to upload images and receive garbage classification results.	2	Medium	Siri
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	Nazziia

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	7 Nov 2023	10 Nov 2023	20	11 Nov 2023
Sprint-2	7	4 Days	9 Nov 2023	13 Nov 2023		
Sprint-3	11	4 Days	15 Nov 2023	19 Nov 2023		
Sprint-4	2	4 Days	16 Nov 2023	20 Nov 2023		
Sprint-5	1	4 Days	17 Nov 2023	21 Nov 2023		

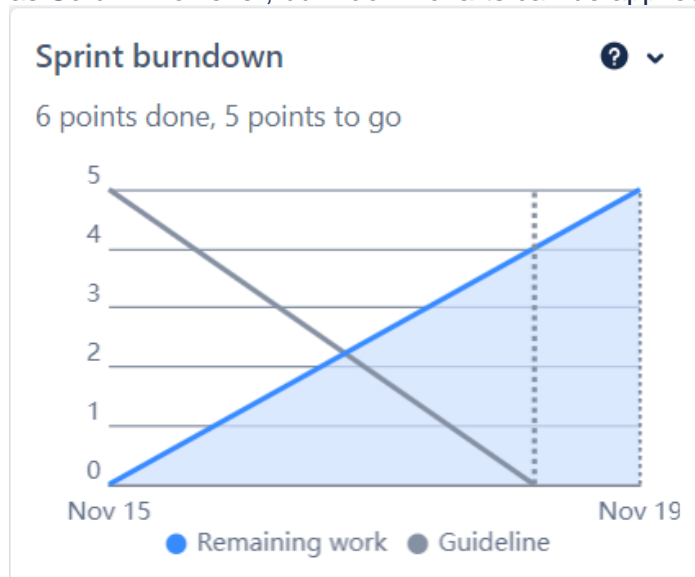
Velocity:

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)

$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{20}{10} = 2$$

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>

Board Section:

The screenshot displays the Jira Scrum Board for a project named "My Scrum Project". The interface is divided into several sections:

- Left Sidebar:** Contains navigation links for "My Scrum Project" (Software project), "You're on the Free plan" with an "UPGRADE" button, and a list of views: "PLANNING" (Timeline, Backlog, Board - selected), "DEVELOPMENT" (Code), "Project pages", "Add shortcut", and "Project settings". At the bottom, it states "You're in a team-managed project" with a "Learn more" link.
- Header:** Shows the project path "Projects / My Scrum Project", the title "All sprints", and a "Complete sprint" button. There are also icons for lightning bolt, star, and share.
- Filter Bar:** Includes a search bar, user avatars, and filters for "Epic" and "Sprint". A "GROUP BY" dropdown is set to "None". Action buttons for "Import work", "Insights", and "View settings" are also present.
- Board Columns:** The board is organized into three main columns: "TO DO 2", "IN PROGRESS 2", and "DONE ✓".
 - TO DO 2:** Contains two tasks. The first task, "deploy the trained deep learning model as an API or web service to make it accessible for garbage classification. integrate the model's API into a user-friendly web interface for users to upload images and receive garbage classification results.", is associated with "MODEL DEPLOYMENT AND INTEGRATION" and "SCRUM-22" (2 points). The second task, "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.", is associated with "TESTING AND QUALITY ASSURANCE" and "SCRUM-23" (1 point).
 - IN PROGRESS 2:** Contains two tasks. The first task, "train the selected deep learning model using the preprocessed dataset and monitor its performance on the validation set.", is associated with "MODEL DEVELOPMENT AND TRAINING" and "SCRUM-20" (5 points). The second task, "Incorporate data augmentation methods, such as rotation and flipping, to enhance the model's resilience and boost its accuracy.", is also associated with "MODEL DEVELOPMENT AND TRAINING" and "SCRUM-21" (6 points).
 - DONE ✓:** This column is currently empty.

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 View settings

▼ SCRUM Sprint 3 15 Nov – 19 Nov (2 issues)

0110

Complete sprint

SCRUM-20 train the selected deep learning model using the preprocessed data...

MODEL DEVELOPMENT

IN PROGRESS ▼

5

J

SCRUM-21 Incorporate data augmentation methods, such as rotation and flipping...

MODEL DEVELOPMENT

IN PROGRESS ▼

6

+ Create issue

▼ SCRUM Sprint 4 16 Nov – 20 Nov (1 issue)

200

Complete sprint

SCRUM-22 deploy the trained deep learning model as an API or web service to ...

MODEL DEPLOYMENT

TO DO ▼

2

J

+ Create issue

▼ SCRUM Sprint 5 17 Nov – 21 Nov (1 issue)

100

Complete sprint

SCRUM-23 conduct thorough testing of the model and web interface to identify bugs...

TESTING AND VALIDATION

TO DO ▼

1

+ Create issue

Timeline:

