

Project Planning Phase

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

Date	27 October 2023
Team ID	Team-592608□
Project Name	ENVISIONING SUCCESS: Predicting University Scores Using Machine Learning
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	In the Project Setup & Infrastructure phase, we establish the technical foundation for data collection, model development, and web application deployment.	2		Sowris
Sprint 1	Project development environment	USN 2	Set up the development environment with the required tools and frameworks to start the ENVISIONING SUCCESS: Predicting University Scores Using Machine Learning	2		Sedhupathi
Sprint 2	Data collection	USN 3	Gather some datasets of university rankings for training the machine learning model.	2		Mukund
Sprint 2	Data preprocessing	USN 4	Preprocess the collected dataset by handling missing values, handling categorical data, handling outliers, scaling and splitting it into training and validation sets.	6		Sowris

Sprint 3	Model development	USN 5	Explore and evaluate different machine learning architectures (e.g. Regressions) to select the most suitable model for Predicting University Scores Using Machine Learning	4		Sedhupathi
Sprint 3	Training	USN 6	Train the selected machine learning model using the preprocessed dataset and monitor its performance on the test set.	3		Mukund
Sprint 4	Model deployment & Integration	USN 7	Deploy the trained machine learning model as an API or web service to make it accessible for university rankings. Integrate the model's API into a user-friendly web interface for users to enter details and receive university ranking results.	4		Mukund
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 hyper-parameters and optimise its performance based on user feedback and testing results.	2		Sedupathi

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	1 Days	27 October 2023	28 October 2023	25	25 October 2023
Sprint 2	8	4 Days	28 October 2023	31 October 2023		
Sprint 3	7	3 Days	1 October 2023	3 November 2023		
Sprint 4	4	3 Days	4 November 2023	6 November 2023		
Sprint 5	2	2 Days	7 November 2023	8 November 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)

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

$$AV = 13/25 = 0.52$$

Burndown Chart:

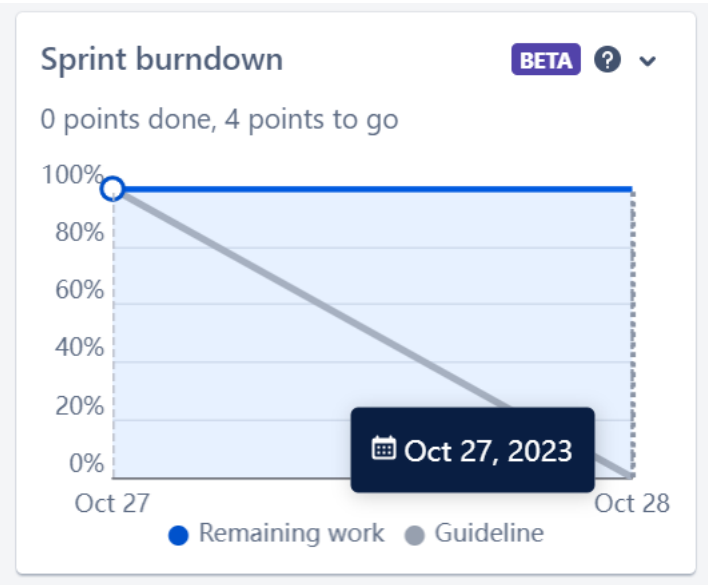
A burndown chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

<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>

Burndown Chart:



Board section:

We have 2 tasks in progress.

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Issues without epic

- > Project Setup and Infrastructure
- > Data Collection and Preprocessing
- > Model Development and Training
- > Model Deployment and Integration
- > Testing and Quality Assurance

+ Create epic

Sprint 3 9 Oct – 15 Oct (2 issues) 6 4 0 Complete sprint

Model Development and Training

- GAR-10 train the selected deep learning model using the preprocessed dataset and monitor its performance on the validation set. MODEL DEVELOPMENT AND TRAI... IN PROGRESS 4
- GAR-11 implement data augmentation techniques (e.g., rotation, flipping) to improve the model's robustness and accuracy. MODEL DEVELOPMENT AND TRAI... TO DO 6

+ Create issue

Sprint 4 16 Sep – 19 Sep (1 issue) 1 0 0 Complete sprint

Model Deployment and Integration

- GAR-13 deploy the trained deep learning model as an API or web service to make it accessible for garbage classification. integrate the ... MODEL DEPLOYMENT AND INTEG... TO DO 1

+ Create issue

Sprint 5 19 Sep – 25 Sep (1 issue) 1 0 0 Complete sprint

Testing and Quality Assurance

- GAR-15 conduct thorough testing of the model and web interface to identify and report any issues or bugs, fine-tune the model hyperp... TESTING AND QUALITY ASSURANCE TO DO 1

+ Create issue

Timeline:

	SEP	OCT	NOV	DEC	
Sprints			<div>Spr...<div></div><div></div><div></div></div>		
▼ <div>VD-1 Project setup & Infrastructure</div>			<div></div>		
<div>VD-2 In the Project Setup & Infrastructure pha...<div>IN PROGRESS</div>SOWRIS K...</div>			<div></div>		
▼ <div>VD-4 Project development environment</div>			<div></div>		
<div>VD-3 Set up the development environment wit...<div>IN PROGRESS</div>SEDHUPAT...</div>			<div></div>		
▼ <div>VD-5 Data collection</div>			<div></div>		
<div>VD-11 Gather some datasets of university rankings f...<div>TO DO</div>MUKUND...</div>			<div></div>		
▼ <div>VD-6 Data preprocessing</div>			<div></div>		
<div>VD-12 Preprocess the collected dataset by handling...<div>TO DO</div>SOWRIS K...</div>			<div></div>		
▼ <div>VD-7 Model development</div>			<div></div>		
<div>VD-13 Explore and evaluate different machine learni...<div>TO DO</div>SEDHUPAT...</div>			<div></div>		
▼ <div>VD-8 Training</div>			<div></div>		
<div>VD-14 Train the selected machine learning model usi...<div>TO DO</div>MUKUND...</div>			<div></div>		
▼ <div>VD-9 Model deployment & Integration</div>			<div></div>		
<div>VD-15 Deploy the trained machine learning model as...<div>TO DO</div>MUKUND...</div>			<div></div>		
▼ <div>VD-10 Testing & quality assurance</div>			<div></div>		
<div>VD-16 Conduct thorough testing of the model and w...<div>TO DO</div>SEDHUPAT...</div>			<div></div>		

Backlog section

ENVISIONING SUCCESS:...

Software project

You're on the Free plan

UPGRADE

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Epic

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Sprint 1

27 Oct – 28 Oct

(2 issues)

040

Complete sprint

VD-2

In the Project Setup & Infrastructure phase, we establish the technical foundation for data collection, model development, and web application deployment.

PROJECT SETUP & INFR...

IN PROGRESS

2

SK

VD-3

Set up the development environment with the required tools and frameworks to start the ENVISIONING SUCCESS: Predicting University Scores Using Machine Le...

PROJECT DEVELOPME...

IN PROGRESS

2

Create issue

Sprint 2

28 Oct – 31 Oct

(2 issues)

800

Start sprint

VD-11

Gather some datasets of university rankings for training the machine learning model.

DATA COLLECTION

TO DO

2

VD-12

Preprocess the collected dataset by handling missing values, handling categorical data, handling outliers, scaling and splitting it into training and validation sets.

DATA PREPROCESSING

TO DO

6

SK

Create issue

Sprint 3

1 Nov – 3 Nov

(2 issues)

700

Start sprint

VD-13

Explore and evaluate different machine learning architectures (e.g. Regressions) to select the most suitable model for Predicting University Scores Using Machin...

MODEL DEVELOPMENT

TO DO

4

VD-14

Train the selected machine learning model using the preprocessed dataset and monitor its performance on the test set.

TRAINING

TO DO

3

Create issue

Sprint 4

4 Nov – 6 Nov

(1 issue)

400

Start sprint

VD-15

Deploy the trained machine learning model as an API or web service to make it accessible for university rankings. Integrate the model's API into a user-friendly ...

MODEL DEPLOYMENT ...

TO DO

4