

Project Planning Phase

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

Date	25-10-2023
Team ID	PNT2022TMID592760
Project Name	Anticipating Business Bankruptcy
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 (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, frameworks and libraries to start the bankruptcy prediction project.	1	High	Anais
Sprint-1	Development environment	USN-2	Gather financial data (e.g., income statements, balance sheets) for a variety of companies to build the dataset.	2	High	Harish
Sprint-2	Data Preprocessing	USN-3	Identify relevant features for bankruptcy prediction, such as liquidity ratios, solvency ratios, and profitability indicators. Preprocess the collected dataset by replacing null values and removing outliers and splitting it into training and validation sets.	2	High	Rejona
Sprint-2	Model Selection	USN-4	Explore and evaluate different machine learning or deep learning architectures to select the most suitable model for bankruptcy Prediction	3	High	Pranav
Sprint-3	Model Training	USN-5	Train the selected machine learning or deep learning model using the preprocessed dataset and monitor its performance on the validation set.	4	High	Anais
Sprint-4	Model deployment & Integration	USN-6	Deploy the trained deep learning model as an API or web service to make it accessible for bankruptcy prediction. integrate the model's API into a user-friendly web interface for users to upload data and receive results.	7	medium	Rejona, Pranav
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 userfeedback and testing results.	1	medium	Harish

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	25 Oct 2023	27 Oct 2023	3	26 Oct 2023
Sprint-2	5	3 Days	28 Oct 2023	30 Oct 2023	5	29 Oct 2023
Sprint-3	4	3 Days	31 Oct 2023	2 Nov 2023	4	2 Nov 2023
Sprint-4	7	4 Days	3 Nov 2023	6 Nov 2023	7	5 Nov 2023
Sprint-5	1	2 Days	7 Nov 2023	8 Nov 2023	1	8 Nov 2023
					Total: 20	

Velocity:

Imagine we have a 3-days sprint duration, and the velocity of the team is 4 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

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

$$AV = 3/4 = 0.75 \quad (4 \text{ is the average of 20 points for 5 sprints})$$

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.

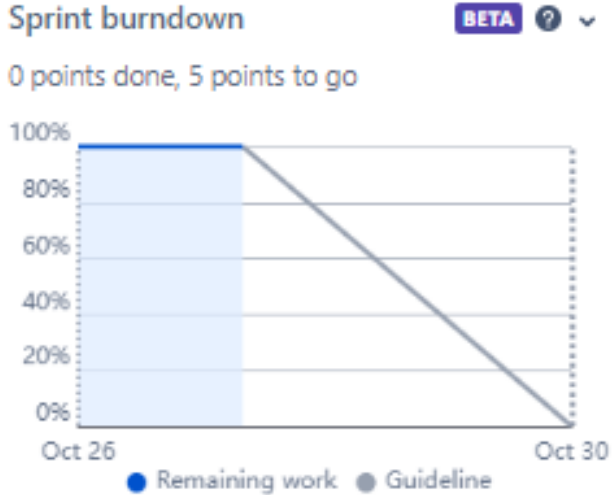
<https://www.visual-paradigm.com/scrum/scrum-burndown-chart/>
<https://www.atlassian.com/agile/tutorials/burndown-charts>

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:

Burndown Chart for Sprint 2



Board section.

We can see the remaining tasks on board.

The image shows a Kanban board with three columns: "TO DO 4", "IN PROGRESS 2", and "DONE 1". Each column contains task cards. The "TO DO" column has three cards, the "IN PROGRESS" column has two, and the "DONE" column has one. Each card includes a description, a label, a status indicator (checkbox or checkmark), a number, and a user icon.

Column	Task Description	Label	Status	Count	User
TO DO 4	Explore and evaluate different machine learning or deep learning architectures to select the most suitable model for bankruptcy Prediction	DATA PREPROCESSING	✓	3	User 1
	Train the selected machine learning or deep learning model using the preprocessed dataset and monitor its performance on the validation set.	MODEL TRAINING	✓	4	User 2
	Deploy the trained deep learning model as an API or web service to make it accessible for bankruptcy prediction. Integrate the model's API into a user-friendly web interface for users to upload data and receive				
IN PROGRESS 2	Gather financial data (e.g., income statements, balance sheets) for a variety of companies to build the dataset.	SET UP OF PROJECT, INFRASTRUCTURE A...	✓	2	User 1
	Identify relevant features for bankruptcy prediction, such as liquidity ratios and profitability indicators. Preprocess the collected dataset by replacing null values and removing outliers and splitting it into training and validation set	DATA PREPROCESSING	✓	2	User 2
DONE 1 ✓	Set up the development environment with the required tools, frameworks and libraries to start the bankruptcy prediction project.	SET UP OF PROJECT, INFRASTRUCTURE A...	✓	1	User 1

Backlog section

Epic

Issues without epic

> Set up of Project, Infrastructure and Development Environment.

> Data Preprocessing

> Model Training

> Model Deployment and Integration

> Testing and quality Assurance

+ Create epic

▼ Sprint 1 25 Oct – 27 Oct (2 issues)

To set up all the requirements for the project.

✓ SCRUM-2 Set up the development environment with the required tools, frameworks and libraries to start the... SET UP OF PROJECT, IN... DONE 1

✓ SCRUM-3 Gather financial data (e.g., income statements, balance sheets) for a variety of companies to build ... SET UP OF PROJECT, IN... IN PROGRESS 2

+ Create issue

▼ Sprint 2 28 Oct – 30 Oct (2 issues)

Preprocess the Data and Set the model

✓ SCRUM-6 Identify relevant features for bankruptcy prediction, such as liquidity ratios and profitability indicat... DATA PREPROCESSING IN PROGRESS 2

✓ SCRUM-7 Explore and evaluate different machine learning or deep learning architectures to select the most ... DATA PREPROCESSING TO DO 3

+ Create issue

▼ Sprint 3 31 Oct – 2 Nov (1 issue)

To train the model

✓ SCRUM-9 Train the selected machine learning or deep learning model using the preprocessed dataset and ... MODEL TRAINING TO DO 4

Timeline

