

Project Planning Phase

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

Date	24 October 2023
Team ID	Team - 591539
Project Name	Machine Learning Approach For Predicting The Rainfall
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)	UserStory Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Location and notification access	USN-1	As a user, I can get real time response about rainfall occurrence so that i can plan my day ahead	5	High	2

Sprint-4	Email notification	USN-2	As a user, I will receive confirmation email once I have registered for the application	4	Medium	4
Sprint-3	Data Source Management	USN-3	As an administrator, I need the capability to create backups of the model's configuration and settings, as well as recover the model to a previous working state in case of errors or misconfigurations.	5	High	4
Sprint-1	Prediction	USN-4	As a user, I can request a rainfall prediction for a specific location and date	5	High	2
Sprint-2	Research	USN-5	As a data analyst, I want the ability to configure and fine-tune the parameters of the rainfall prediction model to enhance its accuracy and reliability.	5	High	2
Sprint-2	Reporting	USN-6	As an admin, I can generate reports and specify date ranges to track the application's performance	4	Medium	2
Sprint-2	Feature Engineering Enhancement	USN-7	As a data scientist, I want to enhance the feature engineering process used in the rainfall prediction model by introducing advanced feature selection techniques and evaluating their impact on model accuracy.	4	Medium	2
Sprint-4	Assistance	USN-8	As a Customer Care Executive, I want to assist customers in using the rainfall prediction system effectively and address their concerns.	3	Low	4

Sprint-3	Security & Functionality	USN-9	As an Administrator, I want to manage and maintain the system to ensure its functionality and security.	5	High	4
Sprint-1	Performance Monitoring	USN-10	As a manager, I want to access the dashboard displaying real-time data, key performance indicators (KPIs), and graphs to monitor the performance.	5	High	2
Sprint-3	Risks Monitoring	USN-11	As a disaster management coordinator, I can access real-time rainfall forecasts to monitor potential flood risks and initiate emergency response plans when necessary.	5	High	4
Sprint-4	Recommendations	USN-12	As a farmer, I can receive accurate and timely rainfall predictions for my region, so I can make informed decisions about when to plant, irrigate, or harvest my crops.	4	Medium	4

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	15	6 Days	27 Oct 2023	31 Oct 2023		
Sprint-2	13	6 Days	27 Oct 2023	6 Nov 2023		
Sprint-3	15	6 Days	01 Nov 2023	6 Nov 2023		
Sprint-4	11	6 Days	01 Nov 2023	9 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 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>