

Project Planning Phase

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

Date	22 October 2022
Team ID	PNT2022TMID13798
Project Name	Project - Developing a Flight Delay Prediction Model 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	Data Collection	USN-1	The user doesn't have access to this but with the help of this users can find attributes and relationships between objects in a database.	1	High	Anushka.J.Shetty, Hephzibah Abraham Thottathil, Devayani S, Danusree U V
Sprint-1	Data Pre-Processing	USN-2	The user doesn't have access to this but it provides the user with a clean dataset that further allows the model to run smoothly.	5	Medium	Anushka.J.Shetty, Hephzibah Abraham Thottathil, Devayani S, Danusree U V
Sprint-1	Data Visualization	USN-3	The user doesn't have access to this but it shows relations between data in a dataset.	3	Low	Anushka.J.Shetty, Hephzibah Abraham Thottathil, Devayani S, Danusree U V
Sprint-2	Building Machine Learning Model	USN-4	The user can predict the flight delay by the machine learning model	5	High	Anushka.J.Shetty, Hephzibah Abraham Thottathil, Devayani S,

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
						Danusree U V
Sprint-2	Evaluation Of Machine Learning Model	USN-5	The user can predict the flight delay by the machine learning model.	2	High	Anushka.J.Shetty, Hephzibah Abraham Thottathil, Devayani S, Danusree U V
Sprint-3	Creation Of Flask App	USN-6	The user can access the model or prediction through the website	5	High	Anushka.J.Shetty, Hephzibah Abraham Thottathil, Devayani S, Danusree U V
Sprint-3	User Interaction dashboard	USN-7	The user can access the model or prediction through the website	4	High	Anushka.J.Shetty, Hephzibah Abraham Thottathil, Devayani S, Danusree U V
Sprint-4	Registration	USN-8	The user can register for the application by entering their mail id, password and confirming the password	3	Medium	Anushka.J.Shetty, Hephzibah Abraham Thottathil, Devayani S, Danusree U V
Sprint-4	Login	USN-9	The user can log in to the application by entering their mail id and password	1	Medium	Anushka.J.Shetty, Hephzibah Abraham Thottathil, Devayani S, Danusree U V
Sprint-4	Creation Of Query Page	USN-10	The user can raise a query or post a complaint or feedback	1	Low	Anushka.J.Shetty, Hephzibah Abraham Thottathil, Devayani S,

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
						Danusree U V
Sprint-4	Execution Of Model	USN-11	The user can use the model to find the flight delay	2	High	Anushka.J.Shetty, Hephzibah Abraham Thottathil, Devayani S, Danusree U V
Sprint-5	Model Deployment On IBM Cloud Using IBM Watson	USN-12	The user can use the model by requesting the deployed model on cloud	3	Medium	Anushka.J.Shetty, Hephzibah Abraham Thottathil, Devayani S, Danusree U V

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	9	6 Days	18 Oct 2022	22 Oct 2022	9	22 Oct 2022
Sprint-2	7	6 Days	24 Oct 2022	29 Oct 2022	7	29 Oct 2022
Sprint-3	9	6 Days	31 Oct 2022	05 Nov 2022	9	05 Nov 2022
Sprint-4	7	6 Days	07 Nov 2022	12 Nov 2022	7	12 Nov 2022
Sprint-5	3	6 Days	14 Nov 2022	19 Nov 2022	3	19 Nov 2022

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)

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

Sprint-1 = 9/6 = 1.5

Sprint-2 = 7/6 = 1.166

Sprint-3 = 9/6 = 1.5

Sprint-4 = 7/6 = 1.166

Sprint-5 = 3/6 = 0.5

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.

