

## Project Planning Phase

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

Date	19 October 2022
Team ID	PNT2022TMID53082
Project Name	Developing a Flight Delay Prediction Model using Machine Learning.
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	Data Collection , Cleaning and Pre processing	USN-1	As a user, I can't interact with anything. Waiting is users task.	2	High	Niranjan,Priya
Sprint-1	Model Building	USN-2	As a user, I predict flight delay by using the ML models developed.	1	High	Sarah,Shreya
Sprint-1	Model Evaluation	USN-3	As a user, I can evaluate my models accuracy.	2	Low	Sarah,Niranjan
Sprint-2	Model Deployment and integration with Flask.	USN-4	As a user, I can access the models on integration with flask.	2	Medium	Priya,Shreya
Sprint-2	Sign-up	USN-5	As a user, I can register into the application by entering email & password and confirming my password.	1	High	Priya
Sprint-2	login	USN-6	As a user, I can log into the application by entering email & password	1	high	Shreya
Sprint-2	Dashboard	USN-7	As a user, I can explore the various services in the dashboard.	1	high	Sarah

Sprint-3	Raise querycomplaint and give feedback	USN-8	As a user , I can raise complaint or provide feedback.	1	low	Niranjan
Sprint-3	Enhance model accuracy.	USN-9	As a user I can obtain better accurate predictions for my queries.	3	high	Shreya,Sarah
Sprint -3	Enhance user interface.	USN-10	As a user I can have better user experience.	2	meduim	Niranjan,Priya
Sprint-4	Deployment and Testing	USN-11	As a user , I can access the web-app and use it .	2	meduim	Priya,Shreya

#### 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	20	6 Days	24 Oct 2022	29 Oct 2022	20	31 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	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)

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

**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.

**Burndown Chart**

