

## Project Planning Phase

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

Date	24 October 2022
Team ID	PNT2022TMID38633
Project Name	Fertilizer Recommendation System for Disease Prediction
Maximum Marks	8 Marks

### Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points (Total)	Priority	Team Members
Sprint-1	Model Building	USN-1	Building the model and selecting best ML model based on accuracy for accurate prediction.	4	High	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL
Sprint-1	Model Creation and Training (Fruits)		Create a model which can classify diseased fruit plants from given images. I also need to test the model and deploy it on IBM Cloud	8	High	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL
	Model Creation and Training (Vegetables)		Create a model which can classify diseased vegetable plants from given images	2	High	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points (Total)	Priority	Team Members
Sprint-2	Model Creation and Training (Vegetables)		Create a model which can classify diseased vegetable plants from given images and train on IBM Cloud	6	High	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL
	Registration	USN-1	As a user, I can register by entering my email, password, and confirming my password or via OAuth API	3	Medium	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL.
	Upload page	USN-2	As a user, I will be redirected to a page where I can upload my pictures of crops	4	High	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL
	Suggestion results	USN-3	As a user, I can view the results and then obtain the suggestions provided by the ML model	4	High	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL
	Base Flask App		A base Flask web app must be created as an interface for the ML model	2	High	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL.
Sprint-3	Login	USN-4	As a user/admin/shopkeeper, I can log into the application by entering email & password	2	High	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL
	User Dashboard	USN-5	As a user, I can view the previous results and history	3	Medium	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL
	Integration		Integrate Flask, CNN model with Cloudant DB	5	Medium	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL
	Containerization		Containerize Flask app using Docker	2	Low	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL

Sprint-4	Dashboard (Admin)	USN-6	As an admin, I can view other user details and uploads for other purposes	4	Medium	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL
	Dashboard (User)		As a User, they can upload the leaf image in the portal and get the suggestion for the fertilizers to be used	6	High	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL
	Containerization		Create and deploy Helm charts using Docker Image made before	2	Medium	SATHISHKUMAR K, SHAIK RIYAZ AHMED, PRAKASH, RAAGHUL

#### 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	14	6 Days	24 Oct 2022	29 Oct 2022	14	30 Oct 2022
Sprint-2	19	6 Days	31 Oct 2022	05 Nov 2022	19	06 Nov 2022
Sprint-3	12	6 Days	07 Nov 2022	12 Nov 2022	12	13 Nov 2022
Sprint-4	12	6 Days	14 Nov 2022	19 Nov 2022	12	20 Nov 2022

**NOTE:** Burndown charts, Velocity to be updated dynamically after end of sprints

## 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)

$$\text{Sprint 1 AV} = \text{Sprint duration/velocity} = 14/6 = 2.3$$

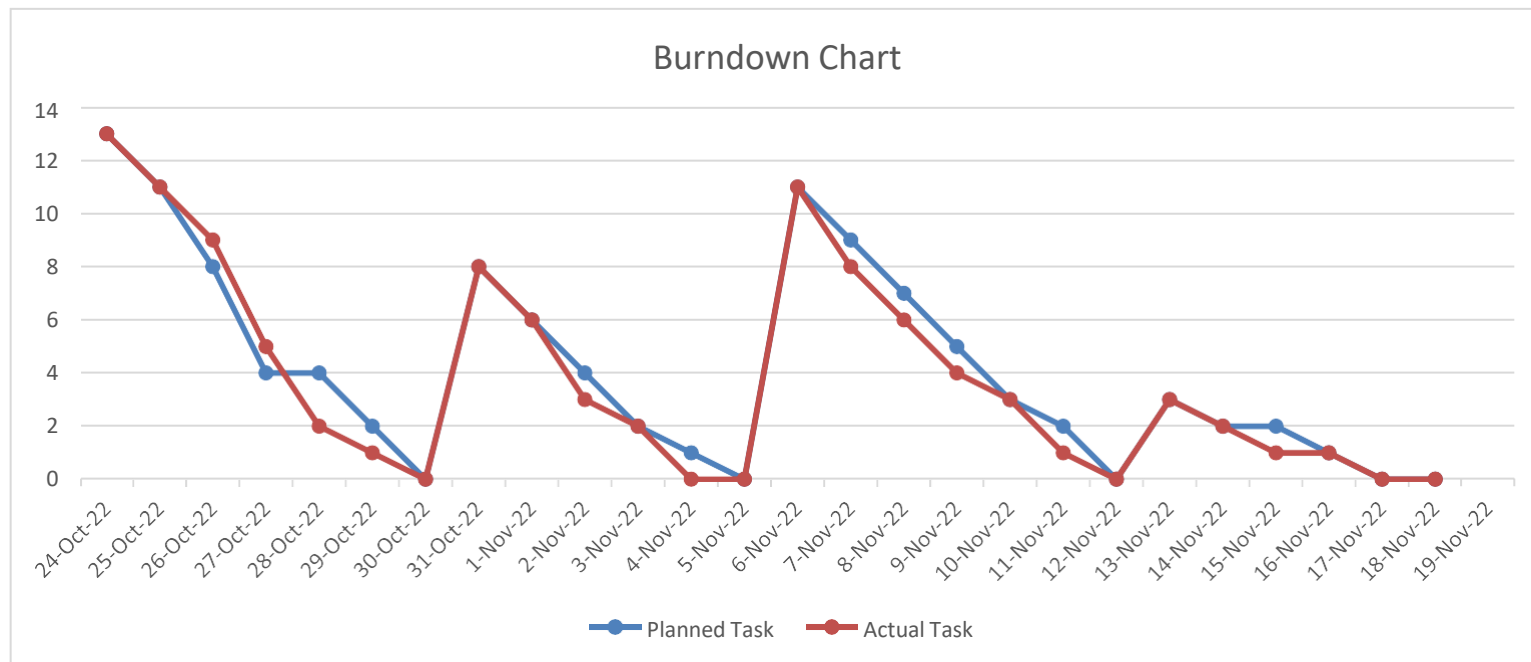
$$\text{Sprint 2 AV} = \text{Sprint duration/velocity} = 19/6 = 3.1$$

$$\text{Sprint 3 AV} = \text{Sprint duration/velocity} = 12/6 = 2$$

$$\text{Sprint 4 AV} = \text{Sprint duration/velocity} = 12/6 = 2$$

### 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.



Fertilizer Recommendation System for Disease Prediction  
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## Backlog

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Epic

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Insights

Sprint 1 24 Oct – 29 Oct (6 issues)

- ☒ HIVE-1 Collect Dataset (IBM, Kaggle)
- ☒ HIVE-2 Preprocess Images (Fruits) MODEL CREATION AND TRAINING...
- ☐ HIVE-3 Create CNN model (Fruits) MODEL CREATION AND TRAINING...
- ☐ HIVE-4 Train and test model-1 in IBM Watson MODEL CREATION AND TRAINING...
- ☒ HIVE-5 Tune parameters MODEL CREATION AND TRAINING...
- ☐ HIVE-6 Create CNN model (Vegetables) MODEL CREATION AND TRAINING...

+ Create issue

10 0 0

Start sprint



- 1 TO DO
- 1 TO DO
- 2 TO DO
- 3 TO DO
- 1 TO DO
- 2 TO DO

