

## Project Planning Phase

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

Team ID	PNT2022TMID31966
Project Name	Emerging methods for early detection of forest fire
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 and preprocessing	USN-1	Collecting the forest fire dataset	2	High	
Sprint-1		USN-2	Labelling the dataset according to class	1	High	
Sprint-1		USN-3	Some of the forest fire is labeled accordingly	2	Low	
Sprint-1		USN-4	Dataset will contain forest fire prediction	Qsz1z	Medium	
Sprint-1	Preprocessing	USN-5	To prepare raw data in a format that the network can accept	1	High	
Sprint-1		USN-6	Scaling is used for making data points generalized			
Sprint-1		USN-7	Shear range image will be distorted along an axis, mostly to create or rectify the perception angle			
Sprint-1		USN-8	Zoom augmentation will randomly zoom the image and add new pixels for the image			
Sprint-1		USN-9	Flipping the entire pixels of an image			
Sprint-2	Training, Testing and Creating a model	USN-10	Start initial the model			
Sprint-2		USN-11	Adding difference layers of cnn			

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-2		USN-12	Creating compiling with adam optimizer			
Sprint-2		USN-13	Creating metrics			
Sprint-2		USN-14	Train the data with 20 epoch			
Sprint-2		USN-15	Testing the model			
Sprint-2		USN-16	Save the model			
Sprint-2	Flask and frame workdesign	USN-17	Creating backend framework with flask			
Sprint-3		USN-18	Importing the model file			
Sprint-3		USN-19	Server startup,request and service in aloop			
Sprint-3	Frontend web application developement	USN-20	Creating a html template with css file			
Sprint-3		USN-21	User can import forest fire in webpage			
Sprint-4		USN-22	Predicting where is fireoccurred for the given input			
Sprint-4		USN-23	User can classify as forest fired or not			
Sprint-4		USN-24	Alert the admin about the predection with the gmail			

**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	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	3 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	10Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	17 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)

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