

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

Date	22 October 2022
Team ID	PNT2022TMID49620
Project Name	Project-Early detection of forest fire using deep 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	Download data set	USN-1	The data is downloaded from the Kaggle website and then the data set is classified into training and testing images.	10	High	S. Kamalakar
Sprint-1	Image pre-processing	USN-1	<p>In Image processing technique the first step is usually importing the libraries that will be needed in the program.</p> <p>Import Keras library from that library and import the ImageDataGenerator Library to your Python script.</p> <p>The next step is definig the arguments for the ImageDataGenerator . Here the arguments which we are given inside the image data generator class</p>	10	High	S. Kamalakar S. Shaamini C. Selshia Mary R. Maharaj

			are, rescale, shear_range, rotation range of image, and zoom range that we can consider for images.  The next step is applying the ImageDataGenerator arguments to the train and test dataset.			
Sprint-2	Training image	USN-2	In this training phase the ImageDataGenerator arguments is applied to the training images and the model is tested with several images and the model is saved.	20	High	S. Kamalakar S. Shaamini C. Selshia Mary R. Maharaj
Sprint-3	Testing image and prediction	USN-3	In this testing phase the Image processing techniques is applied to the testing images and executed for prediction.	20	High	S. Kamalakar S. Shaamini C. Selshia Mary R. Maharaj
Sprint-4	Video analysis ,Sending Alert message and web application	USN-4	In this phase video is given as input and fire is detected when the fire is detected alert message is sent using twilio service and a frontend application is created.	20	High	S. Kamalakar S. Shaamini C. Selshia Mary R. Maharaj

**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	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).

$$AV = \text{Sprint Duration} / \text{velocity} = 20/6 = 3.33.$$