

Project Planning Phase

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

Date	18 October 2022
Team ID	PNT2022TMID10909
Project Name	AI-powered Nutrition Analyzer for Fitness Enthusiasts
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	USN-1	We need to collect the data with different fruit images to train the model.	6	High	Varsha P Shiny Roshini J
Sprint-1	Importing the libraries	USN-2	We have to implement necessary libraries in python package.	4	Low	Pavithra A Latchiya K S
Sprint-1	Image pre-processing	USN-3	We will upload the image, and then configure ImageDataGenerator class and apply it to trainset and testset.	10	Medium	Varsha P Pavithra A
Sprint-2	Model building	USN-4	We will get an application with ML model which checks the quality of the image uploaded and initialize the model.	5	High	Shiny Roshini J Latchiya K S
Sprint-2	Adding CNN and Dense layers	USN-5	We add input convolutional layer, dense layer, max pooling layer, flatten, hidden and output layer to the model	5	High	Pavithra A
Sprint-2	Compile the model	USN-6	We compile the model for trained dataset and configure the learning process	2	Medium	Varsha P
Sprint-2	Train and save the model	USN-7	We train and save the model for the dataset collected and the data are validated.	4	High	Shiny Roshini J
Sprint-2	Save the model	USN-8	The compiled data are saved and integrated with an android application or web application.	2	Low	Latchiya K S

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-3	HTML-Home page	USN-9	We upload the input as fruit images.	10	Medium	Pavithra P Latchiya K S
Sprint-3	Building flask application	USN-10	We provide the fundamental details about the usage of application to customer.	5	Low	Varsha P
Sprint-3	Run the application	USN-11	We can see the predicted or recognized nutrition of the images in the application.	5	Medium	Shiny Roshini J
Sprint - 4	Train the model on IBM	USN-12	We train the model in IBM cloud and integrate the results.	10	High	Pavithra A Shint Roshini J
Sprint - 4	Cloud Deployment	USN-13	We can access the web application	10	High	Varsha P Latchiya K S

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	04 Nov 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)

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

Average Velocity=Story points per day

Sprint Duration=Number of days per sprint (Duration)

Velocity=points per sprint

$$AV=20/4=6(\text{approx.})$$

The average velocity is 4 points per sprint.

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.

