

## Project Planning Phase

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

Date	27 October 2022
Team ID	PNT2022TMID39601
Project Name	Project - Detecting Parkinson's Disease 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	Viewing Home Page	USN-1	As a user, I can view the home page which has a description of the disease as well as options to sign up or log in.	6	Low	Santhosh S, Mohammed Sufiyan T M, Mohammed Yusuf Khan K, Hari Prasanth S
Sprint-1	Sign Up Page	USN-2	As a user, I can register for the application by entering my name, phone number, email, password, and confirming my password.	6	High	Santhosh S, Mohammed Sufiyan T M, Mohammed Yusuf Khan K, Hari Prasanth S
Sprint-2	Authorization	USN-3	As a user, I will receive confirmation email once I have registered for the application.	6	High	Santhosh S, Mohammed Sufiyan T M, Mohammed Yusuf Khan K, Hari Prasanth S

Sprint-1	Login	USN-4	As a user, I can log into the application by entering email & password.	8	High	Santhosh S, Mohammed Sufiyan T M, Mohammed Yusuf Khan K, Hari Prasanth S
Sprint-2	Dashboard	USN-5	As a user, I can upload images of spiral and wave to the website in order to receive a diagnosis.	6	High	Santhosh S, Mohammed Sufiyan T M, Mohammed Yusuf Khan K, Hari Prasanth S
Sprint-3	Results	USN-6	As a user, I can receive a diagnosis in addition to recommendations on what I should do now.	6	High	Santhosh S, Mohammed Sufiyan T M, Mohammed Yusuf Khan K, Hari Prasanth S
Sprint-2	Data Collection	USN-7	I need to collect data (images of spirals and waves drawn by healthy people and Parkinson's patients).	8	High	Santhosh S, Mohammed Sufiyan T M, Mohammed Yusuf Khan K, Hari Prasanth S

Sprint-3	Data Pre-Processing	USN-8	I need to clean my data and prepare it for model building by doing pre-processing activities such as resizing, converting from RGB to grayscale etc.	6	High	Santhosh S, Mohammed Sufiyan T M, Mohammed Yusuf Khan K, Hari Prasanth S
Sprint-4	Model Building	USN-9	I need to build the model using Random Forest Classifier for spiral images and K Nearest Neighbour (KNN) for wave images.	10	High	Santhosh S, Mohammed Sufiyan T M, Mohammed Yusuf Khan K, Hari Prasanth S
Sprint-4	Model Deployment	USN-10	I need to deploy the Machine Learning model that was built.	10	Medium	Santhosh S, Mohammed Sufiyan T M, Mohammed Yusuf Khan K, Hari Prasanth S
Sprint-3	Application Building	USN-11	I need to build the website for the application using HTML, CSS etc.	8	High	Santhosh S, Mohammed Sufiyan T M, Mohammed Yusuf Khan K, Hari Prasanth 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	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)

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

### 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.

