# Project Planning Phase

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

| | |
|---|---|
| Date | 07 November 2022 |
| Team ID | PNT2022TMID53604 |
| Project Name | Detecting Parkinson's Disease using Machine 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 | Upload Images | USN-1 | As a user, I can upload the images in the website in order to obtain the prediction result of Parkinson's disease | 2 | High | Keerthana M<br>Krishnapriya S<br>Maheeraj J F<br>Mannoj A |
| Sprint-4 | Test Vital | USN-2 | As a user, I will get the prediction result and accuracy on the test vital page. | 2 | High | Keerthana M<br>Krishnapriya S<br>Maheeraj J F<br>Mannoj A |
| Sprint-2 | Dashboard | USN-3 | Dashboard displays the symptoms, causes and medications for the Parkinson disease | 2 | Low | Keerthana M<br>Krishnapriya S<br>Maheeraj J F<br>Mannoj A |
| Sprint-1 | Data Collection | USN-4 | As an Administrator, I need to collect data (images of spirals and waves drawn by healthy people and Parkinson's patients). | 2 | High | Keerthana M<br>Krishnapriya S<br>Maheeraj J F<br>Mannoj A |
| Sprint-1 | Data Pre-Processing | USN-5 | As an Administrator, I should clean my data and prepare it for model building by doing pre-processing activities such as resizing, visualizing the dataset and converting from RGB to grayscale | 2 | High | Keerthana M<br>Krishnapriya S<br>Maheeraj J F<br>Mannoj A |
| Sprint-2 | Model Building | USN-6 | As an Administrator, I need to build the model using Random Forest Classifier for spiral images and Convolutional Neural Networks (CNN) for wave images. | 3 | High | Keerthana M<br>Krishnapriya S<br>Maheeraj J F<br>Mannoj A |
| Sprint-3 | Deployment of model | USN-7 | As an Administrator, I need to deploy the Machine Learning model that was built. | 2 | Medium | Keerthana M<br>Krishnapriya S<br>Maheeraj J F<br>Mannoj A |

**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 | 10 November 2022 |
| Sprint-2 | 20 | 6 Days | 31 Oct 2022 | 05 Nov 2022 | 20 | 12 November 2022 |
| Sprint-3 | 20 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 20 | 15 November 2022 |
| Sprint-4 | 20 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 20 | 18 November 2022 |

**VELOCITY:**

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

Sprint1->AV=sprint duration/velocity=10/6=1.667

Sprint2->AV=sprint duration/velocity=20/6=3.333

Sprint3->AV=sprint duration/velocity=20/6=3.333

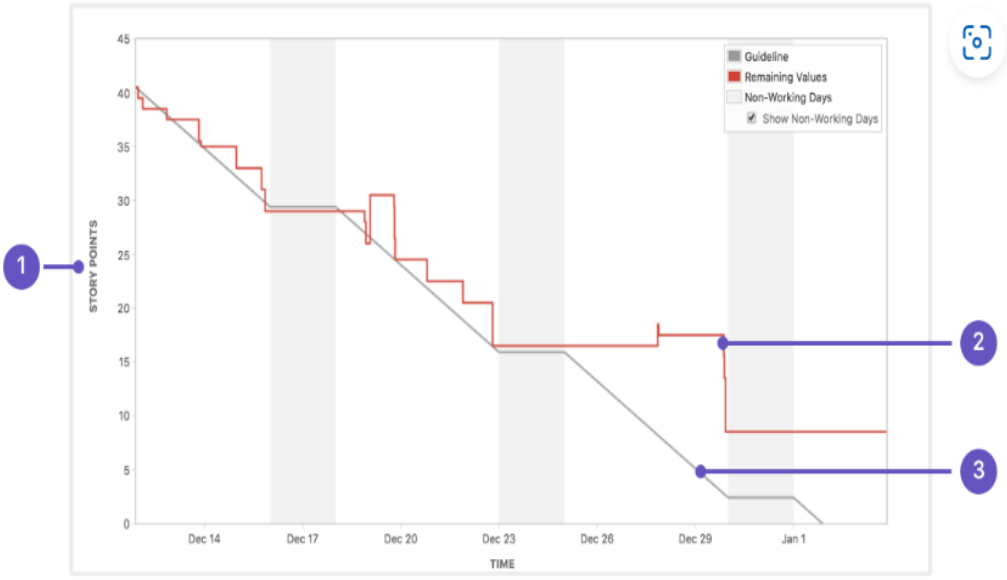
Sprint4->AV=sprint duration/velocity=20/6=3.333

**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. It also shows the amount of work that has been completed in an epic or sprint, and the total work remaining. Burndown charts are used to predict your team's likelihood of completing their work in the time available. They're also great for keeping the team aware of any scope creep that occurs.

Burndown charts are useful because they provide insight into how the team works.
For example:

- If you notice that the team consistently finishes work early, this might be a sign that they aren't committing to enough work during sprint planning.
- If they consistently miss their forecast, this might be a sign that they've committed to too much work.
- If the burndown chart shows a sharp drop during the sprint, this might be a sign that work has not been estimated accurately, or broken down properly.




**Estimation statistic**: The vertical axis represents the estimation statistic that is selected.

**Remaining values**: The red line represents the total amount of work left in the sprint, according to the team's estimates.

**Guideline**: The grey line shows an approximation of where the team should be, assuming linear progress. If the red line is below this line, congratulations - team is on track to completing all their work by the end of the sprint. This isn't fool proof though; it's just another piece of information to use while monitoring team progress.

**Epic burndown chart:**

This report shows how the team is progressing against the work for an epic. It's optimized for Scrum teams who work in sprints and makes tracking easier. Here are some of the ways that you could use an epic burndown chart:

- See how quickly the team is working through the epic.
- See how work added/removed during the sprint has affected the team's overall progress.
- Predict how many sprints it will take to complete the work for an epic, based on past sprints and changes during the sprints.