# Project Planning Phase

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

| | |
|---|---|
| Date | 25/10/22 |
| Team ID | PNT2022TMID09274 |
| Project Name | DETECTING PARKINSON'S DISEASE USING MACHINE LEARNING |
| Max 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 for the web application | 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. | 4 | Low | Jemimah Aishwarya Naresh Sudhan Aravindhan |
| 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. | 4 | High | Jemimah Aishwarya Naresh Sudhan Aravindhan |
| Sprint-1 | Login | USN-3 | As a user, I can log into the application by entering email & password after creation of the account. | 2 | High | Jemimah Aishwarya Naresh Sudhan Aravindhan |
| Sprint-2 | Authorization | USN-4 | As a user, I will receive confirmation email once I have registered for the application. | 6 | High | Jemimah Aishwarya Naresh Sudhan Aravindhan |

| | | | | | | |
|---|---|---|---|---|---|---|
| Sprint-2 | Dashboard | USN-5 | As a user, I can research and know the sample disease images of Parkinson. Also collecting sample data to learn more about the disease. | 6 | High | Jemimah<br>Aishwarya<br>Naresh<br>Sudhan<br>Aravindhan |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|---|---|---|---|---|---|---|
| Sprint-2 | Data Collection (Dataset) | USN-6 | I need to collect data (images of spirals and waves drawn by healthy people and Parkinson's patients). | 6 | Medium | Jemimah Aishwarya Naresh Sudhan Aravindhan |
| Sprint-2 | Data checking | USN-7 | I need to learn and understand the data | 2 | Medium | Jemimah Aishwarya Naresh Sudhan Aravindhan |
| Sprint-3 | Data Pre-Processing and EDA | USN-8 | I need to prepare, clean the data, and process the data for modelbuilding by doing pre-processing activities such as EDA and data visualization. | 4 | High | Jemimah Aishwarya Naresh Sudhan Aravindhan |
| Sprint-3 | Data visualization | USN-9 | I need to visualize the data for to check for any outliers and processing the data accordingly. | 7 | Medium | Jemimah Aishwarya Naresh Sudhan Aravindhan |
| Sprint-3 | Model Building (Training and testing) | USN-10 | I need to build the model using Data mining processes such as Random ForestClassifier, K Nearest Neighbor (KNN) from regression, classification, and clustering techniques. | 4 | High | Jemimah Aishwarya Naresh Sudhan Aravindhan |
| Sprint-3 | Assessing the model using metrics | USN-11 | I need to measure the performance of the model using regression metrics | 5 | Medium | Jemimah Aishwarya Naresh Sudhan Aravindhan |
| Sprint-4 | Application Building | USN-12 | I need to build the website for the model application using HTML, CSS, JavaScript etc followed by user sign up page creation in sprint 1. It is then completed by designing the application website. | 4 | Medium | Jemimah Aishwarya Naresh Sudhan Aravindhan |

| | | | | | | |
|---|---|---|---|---|---|---|
| Sprint-4 | Model verification | USN-13 | I need to check that model works fine in the application for the user. | 6 | High | Jemimah Aishwarya Naresh Sudhan Aravindhan |
| Sprint-4 | Model Deployment (IBM Cloud) | USN-14 | I need to deploy the Machine Learning model iiithat was built using cloud environment from IBM. And configuring the data of the user in IBM warehouse service called as db2. | 5 | Medium | Jemimah Aishwarya Naresh Sudhan Aravindhan |
| Sprint-4 | Results | USN-15 | As a user, I can receive a diagnosis in addition to recommendations on what I should do now. | 5 | High | Jemimah Aishwarya Naresh Sudhan Aravindhan |

**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 | Total Story Points | Duration | Sprint Start Date | Sprint End Date (Planned) | Story Points Completed (as on Planned End Date) | Sprint Release Date (Actual) |
|---|---|---|---|---|---|---|
| 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:**

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

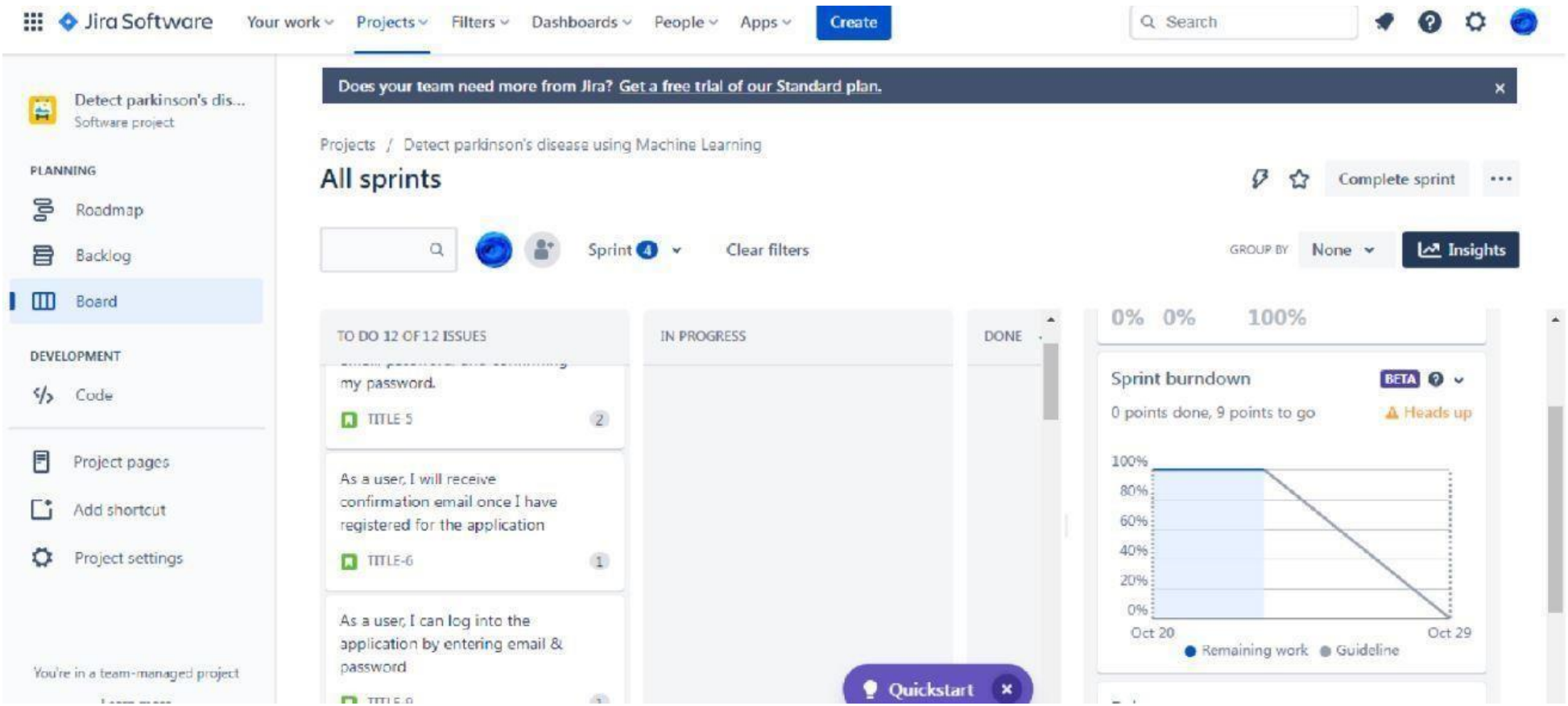
Sprint 1 -> AV = sprint duration/ velocity = 10/6 = 1.667

Sprint 2 -> AV = sprint duration/velocity = 20/6 = 3.333

Sprint 3 -> AV = sprint duration/velocity = 20/6 = 3.333

Sprint 4-> 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.

https://www.visual-paradigm.com/scrum/scrum-burndown-chart/

https://www.atlassian.com/agile/tutorials/burndown-charts

**Reference:**

https://www.atlassian.com/agile/project-management

https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software

https://www.atlassian.com/agile/tutorials/epics

https://www.atlassian.com/agile/tutorials/sprints

https://www.atlassian.com/agile/project-management/estimation

https://www.atlassian.com/agile/tutorials/burndown-charts