

Project Planning Phase

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

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|---------------|--|
| Date | 21 October 2022 |
| Team ID | PNT2022TMID53524 |
| 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 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 | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |
| 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 | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |
| 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 | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |
| Sprint-2 | Authorization | USN-4 | As a user, I will receive confirmation email once I have registered for the application. | 6 | High | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |
| 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 | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|----------|---------------------------------------|-------------------|--|--------------|----------|--|
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| 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 | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |
| Sprint-2 | Data checking | USN-7 | I need to learn and understand the data | 2 | Medium | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |
| 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 | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |
| 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 | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |
| 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 | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |
| Sprint-3 | Assessing the model using metrics | USN-11 | I need to measure the performance of the model using regression metrics | 5 | Medium | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |
| 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 | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |

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|----------|------------------------------|--------|---|---|--------|--|
| Sprint-4 | Model verification | USN-13 | I need to check that model works fine in the application for the user. | 6 | High | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |
| Sprint-4 | Model Deployment (IBM Cloud) | USN-14 | I need to deploy the Machine Learning model that was built using cloud environment from IBM. And configuring the data of the user in IBM warehouse service called as db2. | 5 | Medium | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |
| 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 | Ragul S Ramlakshmi CS Sruthilaya V Subhasree SK |

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 | 10 | 6 Days | 24 Oct 2022 | 29 Oct 2022 | 10 | 29 Oct 2022 |

| 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:

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

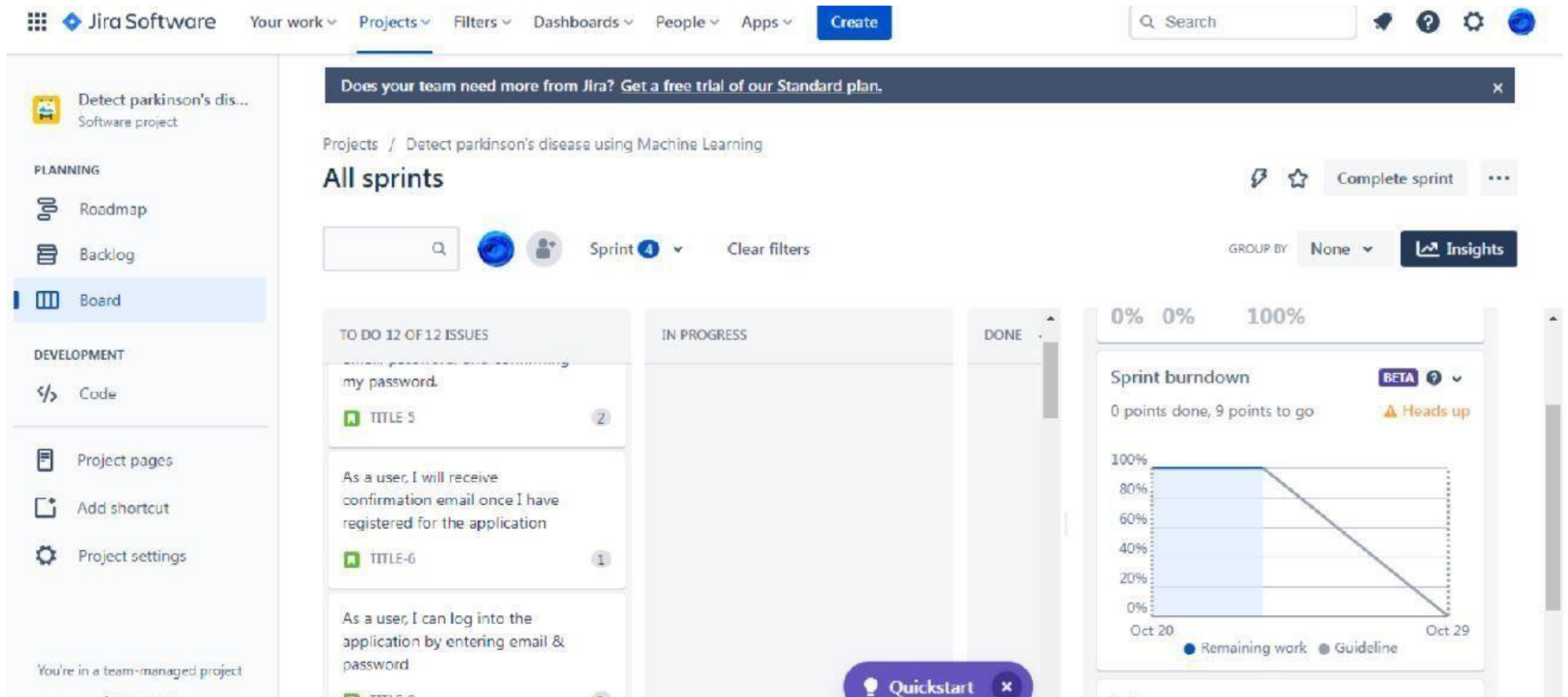
Sprint 1 -> AV = sprint duration/ velocity = 10/6 = 1.667

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>