Project Planning Phase

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

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| --- | --- |
| Date | 22 October 2022 |
| Team ID | PNT2022TMID09867 |
| Project Name | A Novel Method for Handwritten Digit  Recognition System |
| Maximum Marks | 8 Marks |

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Use the below template to create product backlog and sprint schedule

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| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional Requirement (Epic)** | **User**  **Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-1 | Registration | USN-1 | As a user, I can register for the application by entering my email, password, and confirming my password. | 5 | Low | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |
| Sprint-1 | Sign up page | USN-2 | As a user, I will receive confirmation email once I  have registered for the application | 4 | High | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |
| Sprint-1 | Login | USN-3 | As a user, I can log into the application by entering email & password | 6 | High | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |
| Sprint-1 | Data collection | USN-4 | As a user, I need to collect the data with different hand writing to train the model | 8 | Medium | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |

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| **Sprint** | **Functional Requirement (Epic)** | **User**  **Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-1 | Data preprocessing | USN-5 | As a user, I can load the dataset, handling the missing data, scaling and split data into train and test | 6 | Medium | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |
| Sprint-2 | Model Building | USN-6 | As a user, I will get an application with DL model which provides high accuracy of recognized handwritten digit. | 5 | High | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |
| Sprint-2 | Add the CNN layers | USN-7 | Add input convolutional layer, max-pooling layer, flatten, hidden and output layers to the model | 4 | Medium | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |
| Sprint-2 | Compile the model | USN-8 | As a user, compile the model for trained dataset. | 12 | Low | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |
| Sprint-2 | Train and test the model | USN-9 | As a user, train and test the model for the dataset collected and data are validated | 8 | High | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |
| Sprint-2 | Save the model | USN-10 | As a user, the compiled data are saved and integrated with web application | 6 | Medium | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |

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| **Sprint** | **Functional Requirement (Epic)** | **User**  **Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-3 | Building user interface application | USN-11 | As a user, upload the input image that contains handwritten digits | 10 | High | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |
| USN-12 | As a user, I can provide the fundamental details about the usage of  application to the customer | 8 | Low | Nishalini, Archana,  Preethy mariya Mathew, Savitha |
| USN-13 | As a user, I can see the predicted or recognized digits in the application | 6 | Medium | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |
| Sprint-4 |  | USN-14 | As a user, train the model in IBM cloud and integrate the result | 20 | High | Nishalini, Archana,  Preethy Mariya Mathew, Savitha |

Project Tracker, Velocity & Burndown Chart: (4 Marks)

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| **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 | 29Oct 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)



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](https://www.visual-paradigm.com/scrum/what-is-agile-software-development/) methodologies such as [Scrum](https://www.visual-paradigm.com/scrum/scrum-in-3-minutes/). 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>