Project Planning Phase

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

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| Date | 21 October 2022 |
| Team ID | PNT2022TMID20676 |
| Project Name | A Novel Method for Handwritten Digit Recognition System |
| Maximum Marks | 8 Marks |

**Product Backlog, Sprint Schedule, and Estimation**

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| **Sprint** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-1 | Data Collection | USN-1 | As a user, I need to collect the data with different handwriting to train the model | 6 | High | Siva Sankari V,  Pillai Pratham Ramacharan, Ramya M, Gowtham C |
| Sprint-1 | Importing libraries | USN-2 | As a user, I have to implement necessary libraries in python packages. | 4 | Low | Siva Sankari V,  Pillai Pratham Ramacharan, Ramya M, Gowtham C |
| Sprint-1 | Data preprocessing | USN-3 | As a user, I can load the dataset, handle the missing values, scale and split the data. | 10 | Medium | Siva Sankari V,  Pillai Pratham Ramacharan, Ramya M, Gowtham C |
| Sprint-2 | Model building | USN-4 | As a user, I will get an application with ML model which provides high accuracy of recognized handwritten digit. | 5 | High | Siva Sankari V,  Pillai Pratham Ramacharan, Ramya M, Gowtham C |

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| Sprint-2 | Add the CNN layers | USN-5 | Add input convolutional layer, max-pooling layer, flatten, hidden and output layers to the model. | 5 | High | Siva Sankari V,  Pillai Pratham Ramacharan, Ramya M, Gowtham C |
| Sprint- 2 | Compile the model | USN-6 | As a user, compile the model for trained dataset. | 2 | Medium | Siva Sankari V,  Pillai Pratham Ramacharan, Ramya M, Gowtham C |
| Sprint-2 | Train and test the model | USN-7 | As a user, train and test the model for the dataset collected and data are validated. | 4 | High | Siva Sankari V,  Pillai Pratham Ramacharan, Ramya M, Gowtham C |
| Sprint-2 | Save the model | USN-8 | As a user, the compiled data are saved and integrated with an android application or web application. | 2 | Low | Siva Sankari V,  Pillai Pratham Ramacharan, Ramya M, Gowtham C |
| Sprint-3 | Building UI application | USN-9 | As a user upload the input image that contains handwritten digits. | 10 | Medium | Siva Sankari V,  Pillai Pratham Ramacharan, Ramya M, Gowtham C |
| Sprint-3 |  | USN-10 | As a user, I can provide the fundamental details about the usage of application to customer. | 5 | Low | Siva Sankari V,  Pillai Pratham Ramacharan, Ramya M, Gowtham C |
| Sprint-3 |  | USN-11 | As a user, I can see the predicted or recognized digits in the application. | 5 | Medium | Siva Sankari V,  Pillai Pratham Ramacharan, Ramya M, Gowtham C |
| Sprint-4 | Train the model on IBM | USN-12 | As a user train the model in IBM cloud and integrate the results. | 10 | High | Siva Sankari V,  Pillai Pratham Ramacharan, |

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| Sprint-4 | Cloud Deployment | USN-13 | As a user, I can access the web application and make the use of the product from anywhere. | 10 | High | Ramya M, Gowtham C |

# 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 | 29 Oct 2022 | 20 | 31 Oct 2022 |
| Sprint-2 | 20 | 6 Days | 31 Oct 2022 | 05 Nov 2022 | 20 | 6 Nov 2022 |
| Sprint-3 | 20 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 20 | 13 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)

