**Project Planning Phase**

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

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| --- | --- |
| Date | 30 October 2022 |
| Team ID | PNT2022TMID35588 |
| Project Name | Project – Novel method for Handwritten digit recognition |
| 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 | Data Collection | USN-1 | Perform Data Collection from MNIST data of handwritten digits. | 1 | Medium | Praveen, Avinash Krishna |
| Sprint-1 | Data Preprocessing | USN-2 | Perform Data Preprocessing - Scaling, Noise Removal, Normalization, Data Augmentation. | 2 | High | Hrithik Viknesh, Kalaiselvan |
| Sprint-2 | Model Building | USN-3 | Build the model, Use Transfer Learning techniques. | 2 | High | Hrithik Viknesh, Praveen |
| Sprint-2 | Compiling Model | USN-4 | Compile the model using appropriate loss function, metrics, optimizers and callbacks. | 1 | Medium | Kalaiselvan, Avinash Krishna |
| Sprint-2 | Model Training & Validation | USN-5 | Feed the data in batches for multiple epochs to the model, Save the model with best accuracy. | 1 | High | Praveen, Kalaiselvan |
| Sprint -3 | Model Tuning | USN-6 | Tune the model by either increasing or decreasing the model complexity, adding/removing one or more layers by observing the plots of loss and accuracy across epochs. | 1 | Medium | Hrithik Viknesh, Avinash Krishna |
| Sprint-3 | Testing & Inference | USN-7 | Evaluate model performance on test data, and perform classification of new data. | 1 | High | Kalaiselvan |
| Sprint -4 | Implement for string of digits | USN-8 | Implementation of Image Processing techniques to isolate individual digits from an image with a sequence of handwritten digits. | 1 | High | Hrithik Viknesh |
| Sprint -4 | Build & Deploy the web app | USN-9 | Deploy the web app in local/cloud environment, Implement Front-end and Back-end functionalities for the application. | 2 | Medium | Praveen,  Kalaiselvan |

**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 | 30 Oct 2022 |
| Sprint-2 | 20 | 6 Days | 31 Oct 2022 | 05 Nov 2022 |  |  |
| Sprint-3 | 20 | 6 Days | 07 Nov 2022 | 12 Nov 2022 |  |  |
| Sprint-4 | 20 | 6 Days | 14 Nov 2022 | 19 Nov 2022 |  |  |
|  |  |  |  |  |  |  |
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**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)

