|  |  |
| --- | --- |
| Date | 5 November 2022 |
| Team ID | PNT2022TMID09373 |
| Project Name | A Novel Method for Handwritten Digit Recognition System |
| Maximum Marks | 8 Marks |

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

| **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 can collect the dataset from various resources with different handwritings. | 10 | Low | Suvetha Sri RP, Swetha B, Uma Sruthi P, Varshini S |
| Sprint-1 | Data Preprocessing | USN-2 | As a user, I can load the dataset, handling the missing data, scaling and split data into train and test. | 10 | Medium | Suvetha Sri RP, Swetha B, Uma Sruthi P, Varshini S |
| Sprint-2 | Model Building | USN-3 | As a user, I will get an application with ML model which provides high accuracy of recognized handwritten digit. | 5 | High | Suvetha Sri RP, Swetha B, Uma Sruthi P, Varshini S |
| Sprint-2 | Add CNN layers | USN-4 | Creating the model and adding the input, hidden, and output layers to it. | 5 | High | Suvetha Sri RP, Swetha B, Uma Sruthi P, Varshini S |
| Sprint-2 | Compiling the model | USN-5 | With both the training data defined and model defined, it's time to configure the learning process. | 2 | Medium | Suvetha Sri RP, Swetha B, Uma Sruthi P, Varshini S |
| Sprint-2 | Train & test the model | USN-6 | As a user, let us train our model with our image dataset. | 6 | Medium | Suvetha Sri RP, Swetha B, Uma Sruthi P, Varshini S |
| Sprint-2 | Save the model | USN-7 | As a user, the model is saved & integrated with an android application or web application in order to predict something. | 2 | Low | Suvetha Sri RP, Swetha B, Uma Sruthi P, Varshini S |
| Sprint-3 | Building UI Application | USN-8 | As a user, I will upload the handwritten digit image to the application by clicking a upload button. | 5 | High | Suvetha Sri RP, Swetha B, Uma Sruthi P, Varshini S |
| Sprint-3 |  | USN-9 | As a user, I can know the details of the fundamental usage of the application. | 5 | Low | Suvetha Sri RP, Swetha B, Uma Sruthi P, Varshini S |
| Sprint-3 |  | USN-10 | As a user, I can see the predicted / recognized digits in the application. | 5 | Medium | Suvetha Sri RP, Swetha B, Uma Sruthi P, Varshini S |
| Sprint-4 | Train the model on IBM | USN-11 | As a user, I train the model on IBM and integrate flask/Django with scoring end point. | 10 | High | Suvetha Sri RP, Swetha B, Uma Sruthi P, Varshini S |
| Sprint-4 | Cloud Deployment | USN-12 | As a user, I can access the web application and make the use of the product from anywhere. | 10 | High | Suvetha Sri RP, Swetha B, Uma Sruthi P, Varshini S |

**Sprint Delivery Plan**

**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 | 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)

Average Velocity = 20 / 6 = 3.33

**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.

