

## Project Planning Phase

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

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

<b>Sprint</b>	<b>Functional Requirement (Epic)</b>	<b>User Story Number</b>	<b>User Story / Task</b>	<b>Story Points</b>	<b>Priority</b>	<b>Team Members</b>
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)**

<b>Sprint</b>	<b>Total Story Points</b>	<b>Duration</b>	<b>Sprint Start Date</b>	<b>Sprint End Date (Planned)</b>	<b>Story Points Completed (as on Planned End Date)</b>	<b>Sprint Release Date (Actual)</b>
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		

**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)

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