Project Planning Phase

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

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| Date | 24th Oct 2023 |
| Team ID | PNT2022TMID592713 |
| Project Name | Project - Safeguarding Agriculture: AI-Enabled  Prognostication of Farm Insect Threats |
| Maximum Marks | 8 Marks |

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

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| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-1 | DATA COLLECTION AND PREPROCESSING | USN-5 | As a data scientist, I want to download and pre-process the dataset for training the CNN model. | 5 | High | Raghav |
| Sprint-1 | MODEL BUILDING, TRAINING AND EVALUATION | USN-6 | As a data scientist, I want to build a VGG16 model for image analysis. | 8 | High | Raghav |
| Sprint-1 |  | USN-7 | As a data scientist, I want to train the VGG16 model using the training dataset and ImageDataGenerator for image augmentation. | 8 | High | Shuvam |
| Sprint-1 |  | USN-8 | As a data scientist, I want to evaluate the performance of the trained VGG16 model on the testing dataset. | 5 | High | Shuvam |
| Sprint-1 | MODEL SAVING AND DEPLOYMENT. | USN-9 | As a developer, I want to save the trained VGG16 model for future use and deploy it in real-world applications. | 4 | Medium | Shuvam |
| Sprint-2 | USER INTERFACE AND IMAGE UPLOAD | USN-1 | As a user, I want to be able to interact with the UI to choose an image for analysis. | 5 | High | Sush |
| Sprint-2 |  | USN-2 | As a user, I want the web interface to include an "Upload" button to submit an image. | 3 | High | Sush |
| Sprint-2 | FLASK MODEL INTERGRATION | USN-3 | As a user, I want the chosen image to be analyzed by a model integrated with a Flask application. | 8 | Medium | Krithisha |
| Sprint-2 |  | USN-4 | As a user, I want the application to use CNN models to analyze the chosen image. | 5 | High | Krithisha |

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 | 30 | 7 Days | 25th Oct 2023 | 31st Oct 2023 | 30 | 1st Nov 2023 |
| Sprint-2 | 30 | 7 Days | 31st Oct 2023 | 07th Nov 2023 | 23 | 8th Nov 2023 |

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 = 30/7 = 4.28 story points per day**

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A screenshot of a chat

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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>