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

| Date | 18 October 2022 |
|---|---|
| Team ID | PNT2022TMID27175 |
| Project Name | Project - Retail Store Stock Inventory Analytics |
| 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 | Registration | USN-1 | As a user, I can register for the application by entering my email, password, and confirming my password. | 2 | High | Prasanth.G, |
| .Sprint-1 | Confirmation | USN-2 | As a user, I will receive confirmation email once I have registered for the application | 1 | High | Prasanth.G, |
| Sprint-2 | Registration through Facebook | USN-3 | As a user, I can register for the application through Facebook | 2 | Low | Deivaprasath.G, |
| Sprint-1 | Registration through Gmail | USN-4 | As a user, I can register for the application through Gmail | 2 | Medium | Prasanth.G, |
| Sprint-1 | Login | USN-5 | As a user, I can log into the application by entering email & password | 1 | High | Prasanth.G, |
| Sprint-2 | Dashboard | USN-6 | As a user, I can view my dashboard and can perform stock prediction and analysis | 3 | High | Deivaprasath.G, |
| Sprint-2 | View list of stocks | USN-7 | As a user I can view the list of categorized products and their details | 4 | High | Deivaprasath.G, |
| Sprint-2 | Search products | USN-8 | As a user I can search through the product using barcode | 2 | Medium | Deivaprasath.G, |
| Sprint-3 | Report generation | USN-9 | As a user I can generate reports based on product sales | 5 | High | Amish.B, |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|---|---|---|---|---|---|---|
| Sprint-3 | Stock Prediction | USN-10 | As a user I can predict out of stock and less stock for a product | 5 | High | Amish.B, |
| Sprint-4 | Notification system | USN-11 | As a user I can view notification for expired and out of stock products | 4 | High | Sakthivel.A |
| Sprint-4 | Re-Ordering stock | USN-12 | As a user I can reorder stocks based on predictions and notification | 3 | High | Sakthivel.A |
| Sprint-2 | Updating stock | USN-13 | As a user I can add/delete products | 5 | High | Deivaprasath.G, |
| Sprint-4 | Invoice generation | USN-14 | As a user I can generate invoice calculating taxes, discount and calculate credits | 4 | High | Sakthivel.A |
| Sprint-4 | Discount system | USN-15 | As a user I can provide discount based on credit points | 3 | Medium | Sakthivel.A |

**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 | 6 | 6 Days | 24 Oct 2022 | 29 Oct 2022 | 6 | 29 Oct 2022 |
| Sprint-2 | 16 | 6 Days | 31 Oct 2022 | 05 Nov 2022 | 16 | 05 Nov 2022 |
| Sprint-3 | 10 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 10 | 12 Nov 2022 |
| Sprint-4 | 14 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 14 | 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)

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

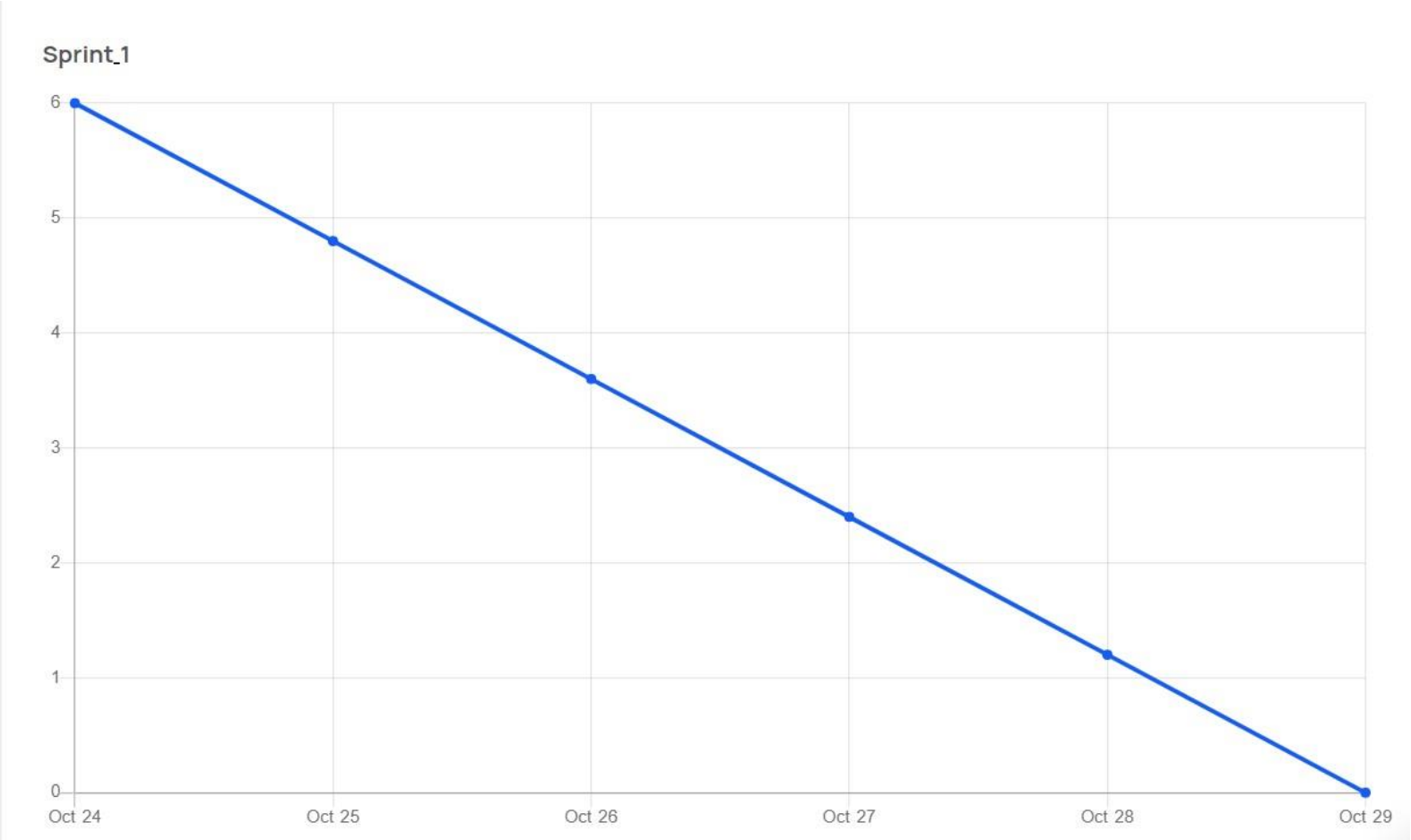| Sprint | Total Story Points | Duration | Average Velocity |
|---|---|---|---|
| Sprint-1 | 6 | 6 Days | 6/6=1 |
| Sprint-2 | 16 | 6 Days | 16/6=2.67 |
| Sprint-3 | 10 | 6 Days | 10/6=1.67 |
| Sprint-4 | 14 | 6 Days | 14/6=2.33 |
| Total | 46 | 24 | 46/24=1.91 |

**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 methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.
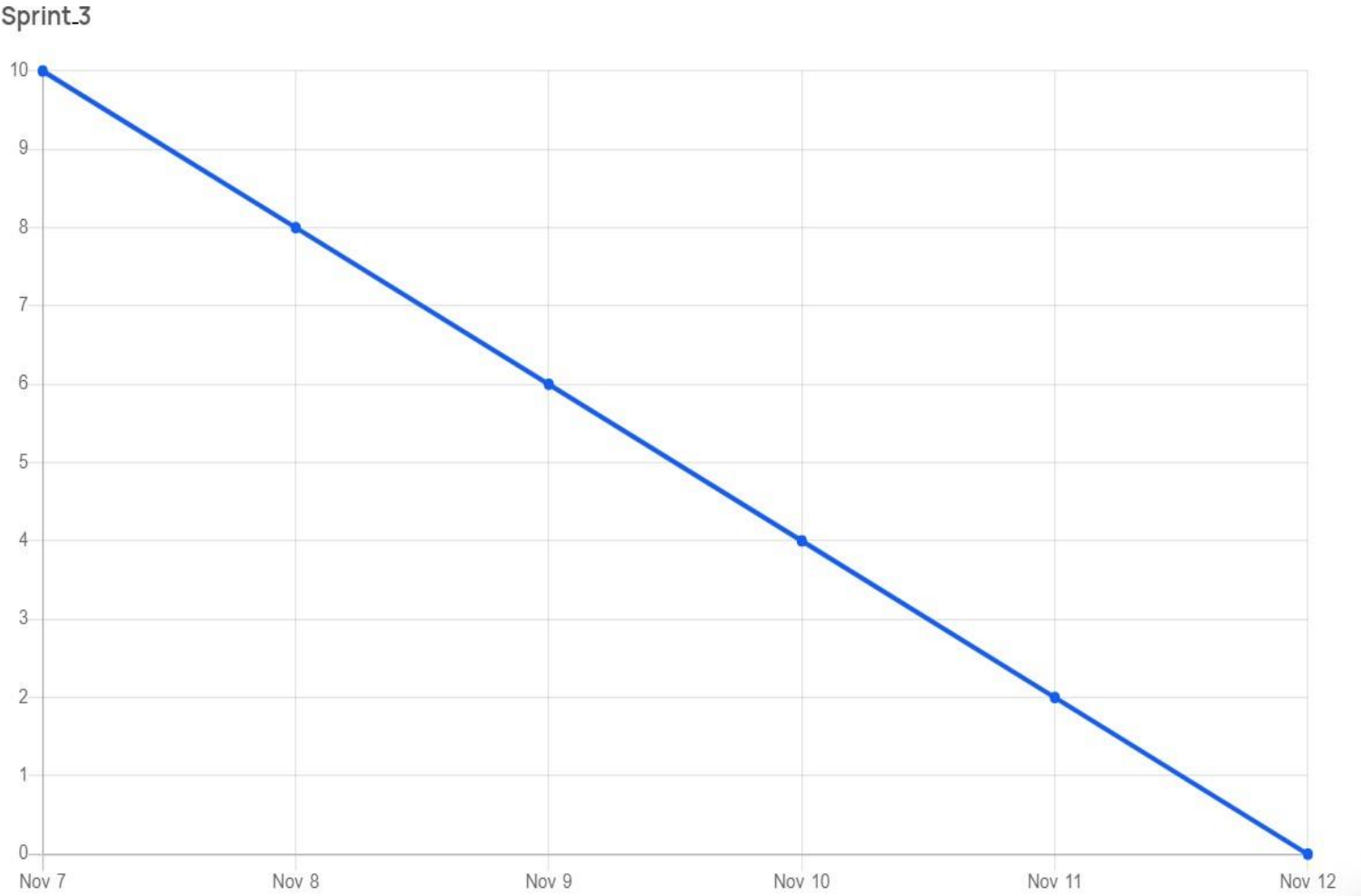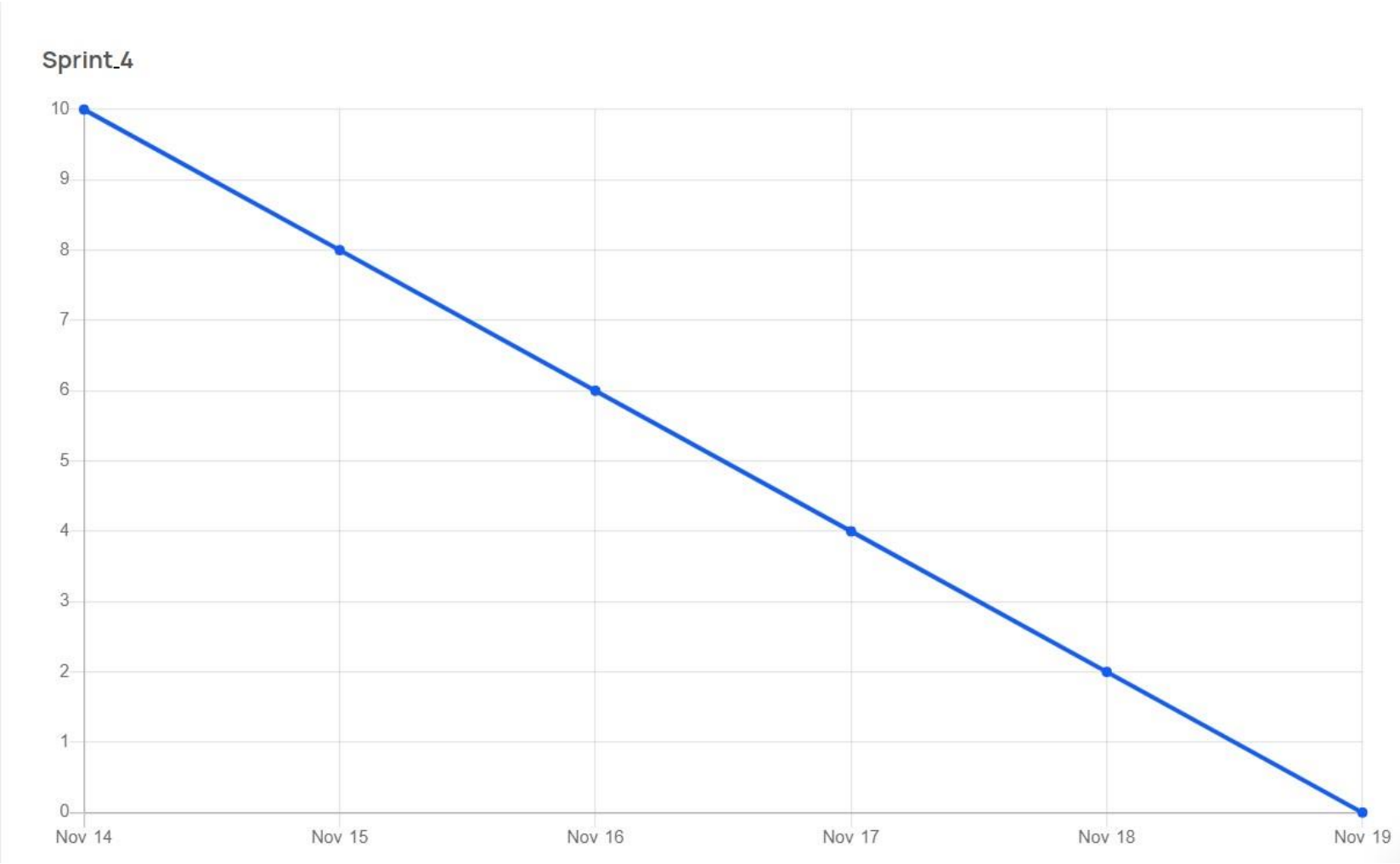
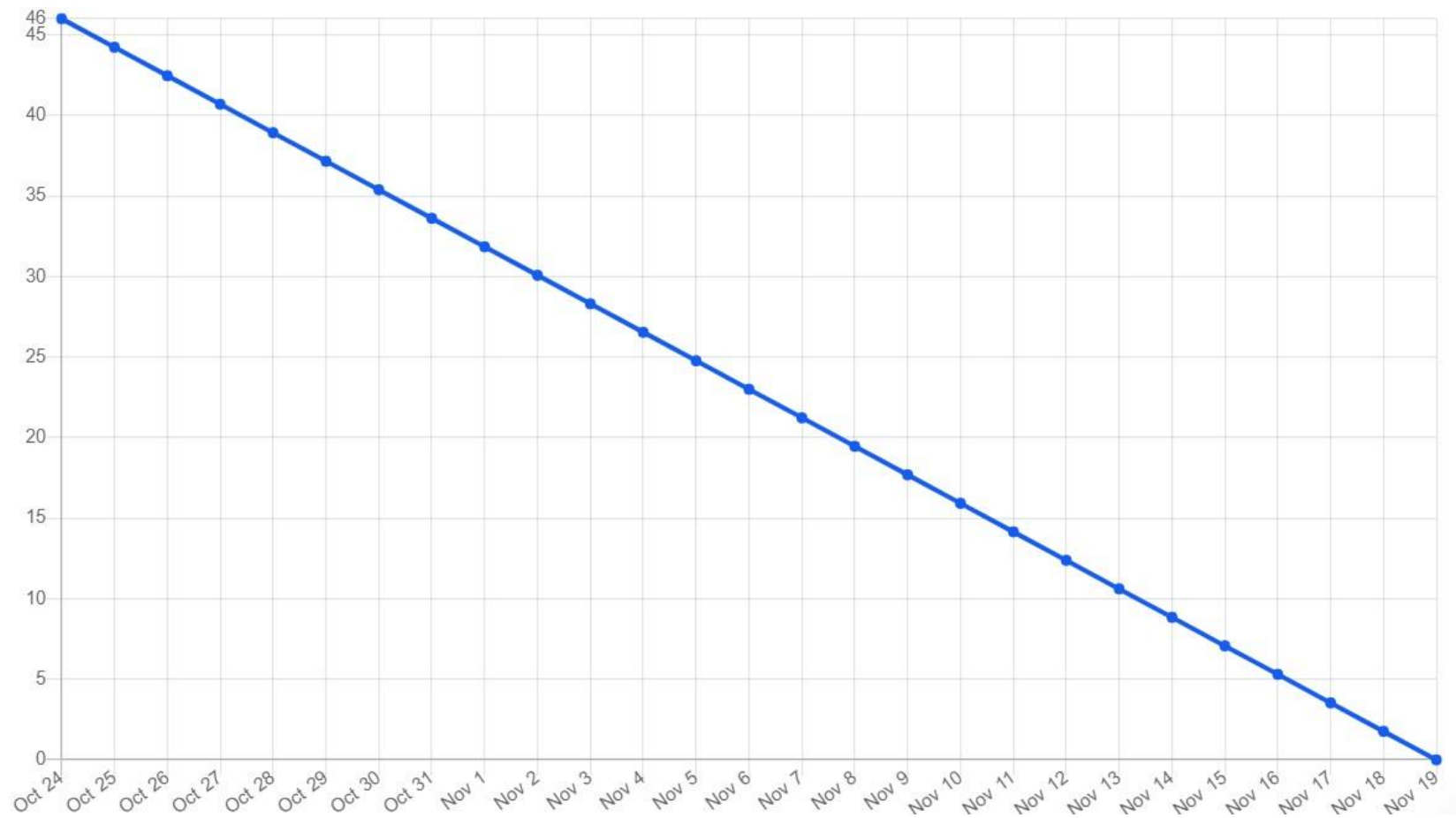**Estimated Effort:**

**Sprint - 1:**



Sprint_1

**Sprint - 2:**

Sprint_2

**Sprint - 3:**

Sprint_3

**Sprint - 4:**

**Overall burndown chart:**

## Overall

**Milestones and Activities:**

| MILESTONES | ACTIVITIES |
|---|---|
| Login | • Login into Dashboard |
| Dashboard | • View Stocks<br>• Perform Predictions<br>• Search Products |
| Updating Stocks | • View Products<br>• Add Products<br>• Delete Products |
| Visualization | • Report generation<br>• Out of stock prediction<br>• In stock prediction |
| Discount system | • Discounts based on credits<br>• Invoice generation |
| Orders | • Reorder Stock |
| Notification system | • Notification upon critical stock |