

## Project Planning Phase

### Project Planning Template (Product Backlog, Sprint Planning, Stories, Storypoints)

|                      |  |
|----------------------|--|
| <b>Date</b>          | 22 October 2022  |
| <b>Team ID</b>       | PNT2022TMID32826                                       |
| <b>Project Name</b>  | SmartFarmer - IoT Enabled Smart Farming<br>Application |
| <b>Maximum Marks</b> | 8 Marks  |

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

Use the below template to create product backlog and sprint schedule

| <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-1      | Registration                         | USN-1                    | As a user the farmer has to register the user Authentication details to the app.                   | 20                  | High            | ABISHEK A.S         |
| Sprint-1      | Registration                         | USN-2                    | Then he/she will get the conformation mail tfor authentication.                                    | 20                  | High            | RATNAKUMAR.A        |
| Sprint-2      | Login                                | USN-3                    | He or she can monitor the field whether the moisture level is down.                                | 10                  | Low             | MOHAMED AMEEN.A     |
| Sprint-3      | Dashboard                            | USN-4                    | If moisture level is down then the thermistor sensor detect it and send the message through cloud. | 15                  | Medium          | HARSHA VARTHAN S.R  |
| Sprint-4      | Dashboard                            | USN-5                    | Then He or she get the notification from the app.  | 20                  | High            | ABISHEK A.S         |
|               |                                      |                          |  |                     |                 |                     |
|               |                                      |                          |  |                     |                 |                     |
|               |                                      |                          |  |                     |                 |                     |

### 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)

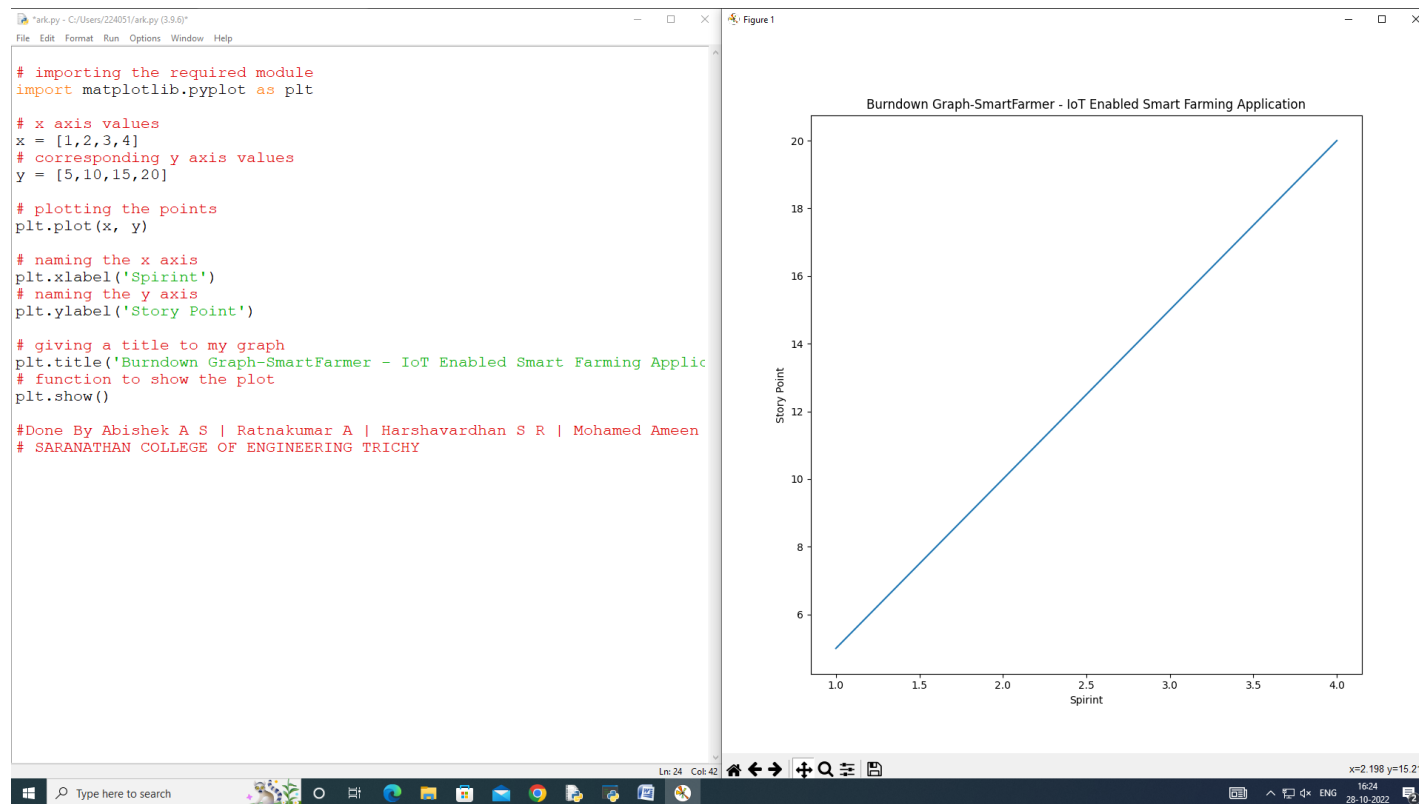
$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{20}{10} = 2$$

## 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.

<https://www.visual-paradigm.com/scrum/scrum-burndown-chart/>

<https://www.atlassian.com/agile/tutorials/burndown-charts>



**Code :**

```
# importing the required module

import matplotlib.pyplot as plt

# x axis values
x = [1,2,3,4]

# corresponding y axis values
y = [5,10,15,20]

# plotting the points
plt.plot(x, y)

# naming the x axis and y axis
plt.xlabel('Sprint')
plt.ylabel('Story Point')

# giving a title to my graph
plt.title('Burndown Graph-SmartFarmer - IoT Enabled Smart Farming Application')

# function to show the plot
plt.show()

#Done By Abishek A S | Ratnakumar A | Harshavardhan S R | Mohamed Ameen A

# SARANATHAN COLLEGE OF ENGINEERING TRICHY
```

**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>