

Project Planning Phase

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

Date	22 October 2022
Team ID	PNT2022TMID16740
Project Name	SmartFarmer - IoT Enabled Smart Farming Application

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	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)

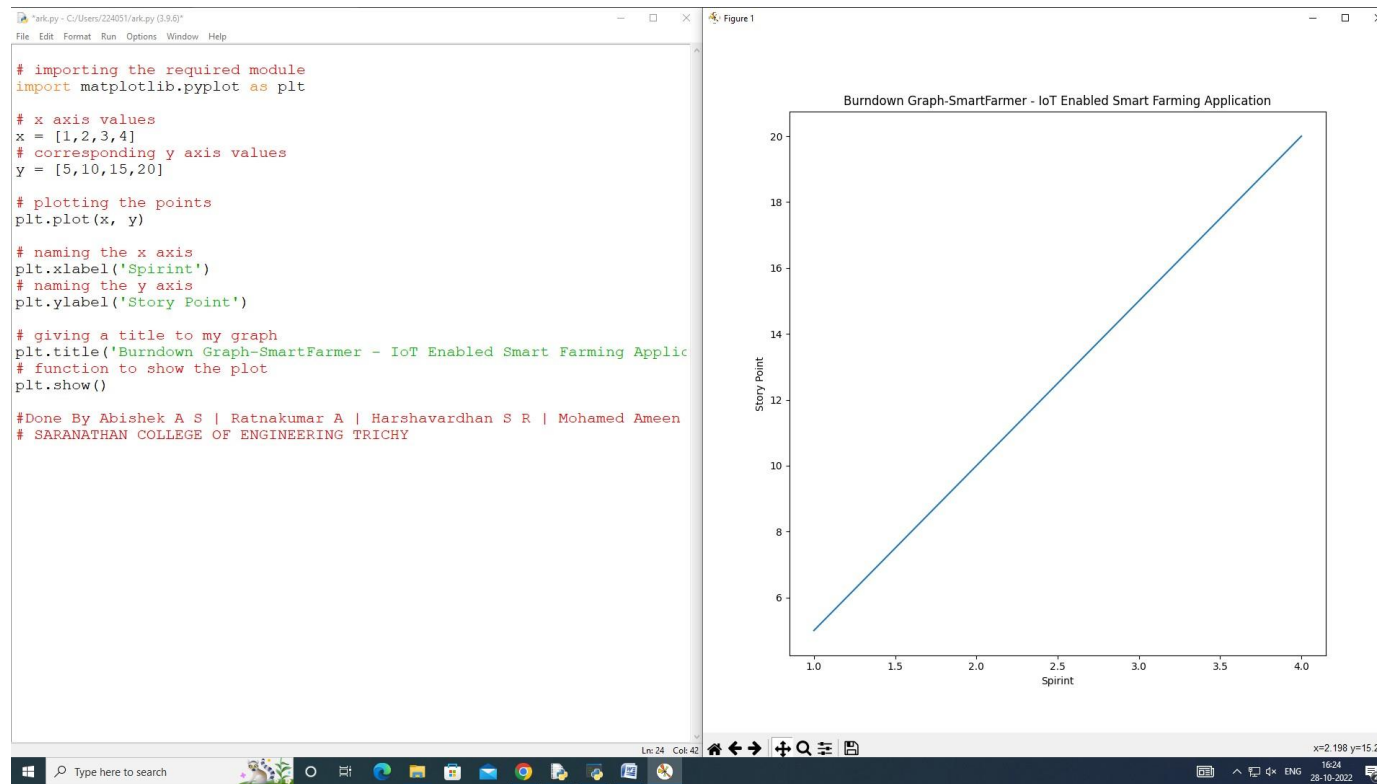
$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{20}{10} = 2$$

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>