

## Project Planning Phase

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

|               |   |
|---------------|---|
| Date          | 12 November 2022                                    |
| Team ID       | PNT2022TMID34110                                    |
| Project Name  | SmartFarmer - IoT Enabled Smart Farming Application |
| 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 | Login                         | USN-1             | Develop an application with MIT app inventor (Login page) | 8            | High     | Ashika.R      |
| Sprint-1 | Simulation                    | USN-2             | Connect sensors and esp32                                 | 5            | Medium   | Abini Breen.E |
| Sprint-2 | Software                      | USN-3             | Develop a python script to publish random sensor data     | 3            | Medium   | Janisha.M     |
| Sprint-2 | Software                      | USN-4             | Publish data to the IBM cloud                             | 5            | High     | Arshitha.A    |
| Sprint-2 | Simulation                    | USN-5             | Connect the circuit with the IBM Cloudant API integration | 5            | High     | Ashika.R      |
| Sprint-3 | Simulation                    | USN-6             | Establishing Node-RED connection                          | 5            | Medium   | Janisha.M     |
| Sprint-3 | App development               | USN-7             | Application development using MIT app inventor            | 8            | High     | Ashika.R      |
| Sprint-4 | Simulation                    | USN-8             | Connecting the developed application with Node-RED        | 3            | High     | Abini Breen.E |
| Sprint-4 | App development               | USN-9             | Testing the developed application                         | 5            | High     | Arshitha.A    |

**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      | 13                        | 6 Days          | 24 Oct 2022              | 29 Oct 2022                      |  | 12 Nov 2022                         |
| Sprint-2      | 13                        | 6 Days          | 31 Oct 2022              | 05 Nov 2022                      |  | 13 Nov 2022                         |
| Sprint-3      | 13                        | 6 Days          | 07 Nov 2022              | 12 Nov 2022                      |  | 14 Nov 2022                         |
| Sprint-4      | 8                         | 6 Days          | 14 Nov 2022              | 19 Nov 2022                      |  | 14 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)

$$AV = 13/6 = 2.16$$

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$$AV = 8/6 = 1.33$$

### Burndown Chart:

A burndown 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.

