**Project Planning Phase**

| **Date** | 19.10.2022 |
| --- | --- |
| **Team ID** | PNT2022TMI41951 |
| **Project Name** | Smart Farmer – 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 |  | US-1 | Create the IBM Cloud services which are being used in this project. | 6 | High | Pavithra G  Anitha T  Kalaivani V  Tharshini shri S |
| Sprint-1 |  | US-2 | Configure the IBM Cloud services which are being used in completing this project. | 4 | Medium | Pavithra G  Anitha T  Kalaivani V |
| Sprint-2 |  | US-3 | IBM Watson IoT platform acts as the mediator to connect the web application to IoT devices, so create the IBM Watson IoT platform. | 5 | Medium | Tharshini shri S |

| **Sprint** | **Functional**  **Requirement (Epic)** | **User Story**  **Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
| Sprint-2 |  | US-4 | In order to connect the IoT device to the IBM cloud, create a device in the IBM Watson IoT platform and get the device credentials. | 5 | High | Pavithra G  Anitha T  Kalaivani V  Tharshini shri S |
| Sprint-3 |  | US-1 | Configure the connection security and create API keys that are used in the Node-RED service for accessing the IBM IoT Platform. | 10 | High | Pavithra G  Anitha T  Kalaivani V  Tharshini shri S |
| Sprint-3 |  | US-2 | Create a Node-RED service. | 10 | High | Pavithra G  Anitha T  Kalaivani V  Tharshini shriS |
| Sprint-3 |  | US-1 | Develop a python script to publish random sensor data such as temperature, moisture, soil and humidity to the IBM IoT platform | 7 | High | Pavithra G  Anitha T  Kalaivani V  Tharshini shriS |
| Sprint-3 |  | US-2 | After developing python code, commands are received just print the statements which represent the control of the devices. | 5 | Medium | Pavithra G  Anitha T  Kalaivani V |

| **Sprint** | **Functional**  **Requirement (Epic)** | **User Story**  **Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  | Tharshini shri S |
| Sprint-4 |  | US-3 | Publish Data to The IBM Cloud | 8 | High | Pavithra G  Anitha T  Kalaivani V  Tharshini shri S |
| Sprint-4 |  | US-1 | Create Web UI in Node- Red | 10 | High | Pavithra G  Anitha T  Kalaivani V  Tharshini shriS |
| Sprint-4 |  | US-2 | Configure the Node-RED flow to receive data from the IBM IoT platform and also use Cloudant DB nodes to store the received sensor data in the cloudant DB | 10 | High | Pavithra G  Anitha T  Kalaivani V  Tharshini shriS |

**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)



# 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, burndown charts can be applied to any project containing measurable progress overtime.

