Project Planning Phase

| Team ID | PNT2022TMID37769 |
| --- | --- |
| Project Name | IoT based Smart crop Protection System for agriculture |
| 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 | Mahalakshmi  Pradapsingh  Rajalakshmi  Gokulkannan |
| Sprint-1 |  | US-2 | Configure the IBM Cloud services which are being used in completing this project. | 4 | Medium | Mahalakshmi  Pradapsingh  Rajalakshmi |
| 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 | Mahalakshmi  Pradapsingh  Gokulkannan |
| 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 | Mahalakshmi  Rajalakshmi  Gokulkannan |
| 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 | Mahalakshmi  Pradapsingh |

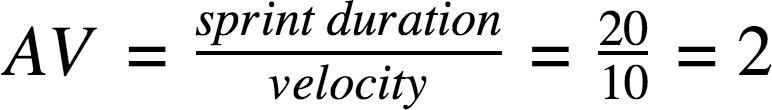
| **Sprint** | **Functional**  **Requirement (Epic)** | **User Story**  **Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| --- | --- | --- | --- | --- | --- | --- |
| Sprint-3 |  | US-2 | Create a Node-RED service. | 10 | High | Mahalakshmi  Rajalakshmi |
| Sprint-3 |  | 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 | Mahalakshmi  Gokulkannan |
| Sprint-3 |  | US-2 | After developing python code, commands are received just print the statements which represent the control of the devices. | 5 | Medium | Mahalakshmi  Pradapsingh  Rajalakshmi |
| Sprint-4 |  | US-3 | Publish Data to The IBM Cloud | 8 | High | Mahalakshmi  Pradapsingh  Gokulkannan |
| Sprint-4 |  | US-1 | Create Web UI in Node- Red | 10 | High | Mahalakshmi  Rajalakshmi  Gokulkannan |
| 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 | Mahalakshmi  Pradapsingh  Rajalakshmi  Gokulkannan |

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

