

## Project Planning Phase

Team ID	PNT2022TMID26073
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	IBM Cloud services	US-1	Create the IBM Cloud services which are being used in this project.	6	High	Rohul Sibi M Thillaikarasi Vinothkumar R Sakthivel
Sprint-1	IBM Cloud services	US-2	Configure the IBM Cloud services which are being used in completing this project.	4	Medium	Rohul Sibi M Thillaikarasi Vinothkumar R Sakthivel
Sprint-2	IBM Watson IoT platform	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	Rohul Sibi M Thillaikarasi Vinothkumar R Sakthivel
Sprint-2	IBM Watson IoT platform	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	Rohul Sibi M Thillaikarasi Vinothkumar R Sakthivel
Sprint-3	IBM Watson IoT platform & Node-RED service	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	Rohul Sibi M Thillaikarasi Vinothkumar R Sakthivel

<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-3	Node-RED service	US-2	Create a Node-RED service.	10	High	Rohul Sibi M Thillaikarasi Vinothkumar R Sakthivel
Sprint-3	IBM IoT platform	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	Rohul Sibi M Thillaikarasi Vinothkumar R Sakthivel
Sprint-3	IBM IoT platform	US-2	After developing python code, commands are received just print the statements which represent the control of the devices.	5	Medium	Rohul Sibi M Thillaikarasi Vinothkumar R Sakthivel
Sprint-4	IBM Cloud Services	US-3	Publish Data to The IBM Cloud	8	High	Rohul Sibi M Thillaikarasi Vinothkumar R Sakthivel
Sprint-4	Webpage	US-1	Create Web UI in Node- Red	10	High	Rohul Sibi M Thillaikarasi Vinothkumar R Sakthivel
Sprint-4	IBM IoT platform	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	Rohul Sibi M Thillaikarasi Vinothkumar R Sakthivel

**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	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)

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

### 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.

