Project Planning Phase

Team ID	PNT2022TMID26854
Project Name	IoT based Smart crop Protection System for agriculture

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

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	SARANYA S SANDHIYA M SHARMILA R
Sprint-1	IBM Cloud services	US-2	Configure the IBM Cloud services which are being used in completing this project.	4	Medium	SARANYA S SANDHIYA M SHARMILA R
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	SARANYA S SANDHIYA M SHARMILA R
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	SARANYA S SANDHIYA M SHARMILA R
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	SARANYA S SANDHIYA M SHARMILA R

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-3	Node-RED service	US-2	Create a Node-RED service.	10	High	SARANYA S SANDHIYA M SHARMILA R

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	SARANYA S SANDHIYA M SHARMILA R
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	SARANYA S SANDHIYA M SHARMILA R
Sprint-4	IBM Cloud Services	US-3	Publish Data to The IBM Cloud	8	High	SARANYA S SANDHIYA M SHARMILA R
Sprint-4	Webpage	US-1	Create Web UI in Node- Red	10	High	SARANYA S SANDHIYA M SHARMILA R
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	SARANYA S SANDHIYA M SHARMILA R

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	14 NOVEMBER 2022	19 NOVEMBER 2022	20	29 Oct 2022
Sprint-2	20	6 Days	14 NOVEMBER 2022	19 NOVEMBER 2022	20	05 Nov 2022
Sprint-3	20	6 Days	14 NOVEMBER 2022	19 NOVEMBER 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 NOVEMBER 2022	19 NOVEMBER 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)

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

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.