Project Planning Phase

Date	22 October 2022
Team ID	PNT2022TMID16228
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	Mohamed Razvi, Ayisha, Asika Banu, Mohamed Safrith
Sprint-1		US-2	Configure the IBM Cloud services which are being used in completing this project.	4	Medium	Mohamed Razvi, Ayisha, Asika Banu, Mohamed Safrith
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	Mohamed Razvi, Ayisha, Asika Banu, Mohamed Safrith
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	Mohamed Razvi, Ayisha, Asika Banu, Mohamed Safrith
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	Mohamed Razvi, Ayisha, Asika Banu, Mohamed Safrith
Sprint-3		US-2	Create a Node-RED service.	10	High	Mohamed Razvi, Ayisha, Asika Banu,

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
						Mohamed Safrith
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	Mohamed Razvi, Ayisha, Asika Banu, Mohamed Safrith
Sprint-3		US-2	After developing python code, commands are received just print the statements which represent the control of the devices.	5	Medium	Mohamed Razvi, Ayisha, Asika Banu, Mohamed Safrith
Sprint-4		US-3	Publish Data to The IBM Cloud	8	High	Mohamed Razvi, Ayisha, Asika Banu, Mohamed Safrith
Sprint-4		US-1	Create Web UI in Node- Red	10	High	Mohamed Razvi, Ayisha, Asika Banu, Mohamed Safrith
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	Mohamed Razvi, Ayisha, Asika Banu, Mohamed Safrith

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	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)

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

Burndown Chart:

A burndown chart is a graphical representation of work left to do versus time. 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.