Project Planning Phase

TITLE   **: IoT based smart crop protection system for agriculture**

DOMAIN NAME   **: Internet Of Things**

TEAM ID   **: PNT2022TMID33625**

TEAM LEADER   **: TharunaPriya S**

TEAM MEMBER   **: Salini P**

                    Srinithi A

                    Yogapriya K

MENTOR NAME   **: Nandhini. P**

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	TharunaPriya S Salini P Srinithi A Yogapriya K
Sprint-1		US-2	Configure the IBM Cloud services which are being used in completing this project.	4	Medium	TharunaPriya S Salini P Srinithi A Yogapriya K

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
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	TharunaPriya S Salini P Srinithi A Yogapriya K
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	TharunaPriya S Salini P Srinithi A Yogapriya K
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	TharunaPriya S Salini P Srinithi A Yogapriya K
Sprint-3		US-2	Create a Node-RED service.	10	High	TharunaPriya S Salini P Srinithi A Yogapriya K
Sprint-3		US-1	Develop a system which will sensor the animals entry into the fields and intimate the farmers.	7	High	TharunaPriya S Salini P Srinithi A Yogapriya K
Sprint-3		US-2	After developing python code, commands are received just print the statements which represent the control of the devices.	5	Medium	TharunaPriya S Salini P Srinithi A Yogapriya K
Sprint-4		US-3	Publish Data to The IBM Cloud	8	High	TharunaPriya S Salini P Srinithi A Yogapriya K
Sprint-4		US-1	Create Web UI in Node- Red	10	High	TharunaPriya S Salini P Srinithi A Yogapriya K
Sprint-4		US-2	Configure the Node-RED flow to receive	10	High	TharunaPriya S

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
			data from the IBM IoT platform and also use Cloudant DB nodes to store the received sensor data in the cloudant DB			Salini P Srinithi A Yogapriya K

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	25 Oct 2022	30 Oct 2022	20	30 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	09 Nov 2022	14 Nov 2022	20	14 Nov 2022
Sprint-4	20	6 Days	16 Nov 2022	21 Nov 2022	20	21 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.