# **Project Planning Phase**

## **Project Planning (Product Backlog, Sprint Planning, Stories, Story points)**

31 October 2022
PNT2022TMID40841
IoT Based Smart crop protection system
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 Vask Number		Story Points	Priority	Team Members	
Sprint-1	Simulation Creation	USN-1	Connect sensors, Arduino and esp8266		High	Jaikanth Santhosh karthick
Sprint-1	Software	USN-2	Develop an application with MIT App inventor (Login page with firebase)			Sivasakthi jaikanth
Sprint-2	Software and Hardware	USN-3	Connect the hardware with IBM Cloud and API Integration	2	Medium	Karthick Santhosh sivasakthi
Sprint-2	Software	USN-4	Application development for project	2 High		Sivasakthi jaikanth
Sprint-3	Software	USN-5	Establishing Node-Red connection	2 Medium		Jaikanth Santhosh karthick
Sprint-3	Software	USN-6	Connecting application with Node-Red and further application development	2	High	Karthick Santhosh

Sprint-4	Testing	USN-7	Testing developed application and	2	High	Jaikanth
	_		working model of hardware		_	Santhosh
						Karthick
						sivasakthi

Project Tracker, Velocity & Burndown Chart: (4 Marks) Story

**Points – 8 points** 

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on	Sprint Release Date (Actual)
	2 02210			(2 2022220)	Planned End Date)	(-2000)
Sprint-1	16	5 Days	25 Oct 2022	29 Oct 2022	Dutc)	31 Oct 2022
Sprint-2	16	8 Days	31 Oct 2022	07 Nov 2022		08 Nov 2022
Sprint-3	16	6 Days	09 Nov 2022	13 Nov 2022		14 Nov 2022
Sprint-4	8	6 Days	15 Nov 2022	17 Nov 2022		17 Nov 2022 – 18 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)

Average Velocity = 
$$56/4 = 14$$

#### **Burndown Chart:**

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile <u>software development</u> methodologies such as <u>Scrum</u>. However, burn down charts can be applied to any project containing measurable progress over time.

