Project Planning Phase

Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

Date	04 November 2022
Team ID	PNT2022TMID46505
Project Name	Project - Real-Time River WaterQuality Monitoring and Control System
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	Creating IBM Cloud and using its services.	6	High	Rajashree.S Harini.K Priyadharsini.MR Priyadharshini.B Abarna.S
Sprint-1		US-2	Configure the IBM cloud service and creating IoT platform.	4	High	Rajashree.S Harini.K Priyadharsini.MR Priyadharshini.B Abarna.S
Sprint-1		US-3	IBM Watson IoT platform acts as the mediator to connect the web application to IoT devices, hence Launching IBM Watson IoT platform.	5	Low	Rajashree.S Harini.K Priyadharsini.MR Priyadharshini.B Abarna.S
Sprint-1		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	Medium	Rajashree.S Harini.K Priyadharsini.MR Priyadharshini.B Abarna.S
Sprint-2		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	Rajashree.S Harini.K Priyadharsini.MR Priyadharshini.B Abarna.S

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-2		US-2	Create a Node-RED service.	10	High	Rajashree.S Harini.K Priyadharsini.MR Priyadharshini.B Abarna.S
Sprint-3		US-1	Develop a python script to publish random sensor data such as temperature, turbidity and pH to the IBM IoT Platform.	7	High	Rajashree.S Harini.K Priyadharsini.MR Priyadharshini.B Abarna.S
Sprint-3		US-2	After developing python code, commands are received just print the statements which represent the control of the devices.	5	Medium	Rajashree.S Harini.K Priyadharsini.MR Priyadharshini.B Abarna.S
Sprint-3		US-3	Publish data to the IBM Cloud.	8	High	Rajashree.S Harini.K Priyadharsini.MR Priyadharshini.B Abarna.S
Sprint-4		US-1	Create Web UI in Node-RED.	10	High	Rajashree.S Harini.K Priyadharsini.MR Priyadharshini.B Abarna.S
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 Cloudant DB.	10	High	Rajashree.S Harini.K Priyadharsini.MR Priyadharshini.B Abarna.S

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	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 burn down 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, burn down charts can be applied to any project containing measurable progress over time.