Project Planning Phase

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

|  |  |
| --- | --- |
| Date | 22 October 2022 |
| Team ID | PNT2022TMID26105 |
| Project Name | Project – Real Time River Water Quality  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 | Surendira Kumar.N  Harshavardhan.C  Elayabharathi.N  Iyyappan.M |
| Sprint-1 |  | US-2 | Configure the IBM cloud service and creating | 4 | High | Surendira Kumar.N |
|  |  | IoT platform. |  |  | Harshavardhan.C |
|  |  |  |  |  | Elayabharathi.N |
|  |  |  |  |  | Iyyappan.M |
| Sprint-1 |  | US-3 | IBM Watson IoT platform acts as the mediator to | 5 | Low | Surendira Kumar.N |
|  |  | connect the web application to IoT devices, |  |  | Harshavardhan.C |
|  |  | hence Launching IBM Watson IoT platform. |  |  | Elayabharathi.N |
|  |  |  |  |  | Iyyappan.M |
| Sprint-1 |  | US-4 | In order to connect the IoT device to the IBM | 5 | Medium | Surendira Kumar.N |
|  |  | Cloud, create a device in the IBM Watson IoT |  |  | Harshavardhan.C |
|  |  | Platform and get the device credentials. |  |  | Elayabharathi.N |
|  |  |  |  |  | Iyyappan.M |
| Sprint-2 |  | US-1 | Configure the connection security and create | 10 | High | Surendira Kumar.N |
|  |  | API keys that are used in the NODE-RED |  |  | Harshavardhan.C |
|  |  | service for accessing the IBM IoT Platform. |  |  | Elayabharathi.N |
|  |  |  |  |  | Iyyappan.M |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **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 | Surendira Kumar.N  Harshavardhan.C  Elayabharathi.N  Iyyappan.M |
| Sprint-3 |  | US-1 | Develop a python script to publish random | 7 | High | Surendira Kumar.N |
|  |  | sensor data such as temperature, turbidity and |  |  | Harshavardhan.C |
|  |  | pH to the IBM IoT Platform. |  |  | Elayabharathi.N |
|  |  |  |  |  | Iyyappan.M |
| Sprint-3 |  | US-2 | After developing python code, commands are | 5 | Medium | Surendira Kumar.N |
|  |  | received just print the statements which |  |  | Harshavardhan.C |
|  |  | represent the control of the devices. |  |  | Elayabharathi.N |
|  |  |  |  |  | Iyyappan.M |
| Sprint-3 |  | US-3 | Publish data to the IBM Cloud. | 8 | High | Surendira Kumar.N  Harshavardhan.C  Elayabharathi.N  Iyyappan.M |
| Sprint-4 |  | US-1 | Create Web UI in Node-RED. | 10 | High | Surendira Kumar.N  Harshavardhan.C  Elayabharathi.N  Iyyappan.M |
| Sprint-4 |  | US-2 | Configure the Node-RED flow to receive data | 10 | High | Surendira Kumar.N |
|  |  | from the IBM IoT Platform and also use |  |  | Harshavardhan.C |
|  |  | Cloudant DB nodes to store the received sensor |  |  | Elayabharathi.N |
|  |  | data in cloudant DB. |  |  | Iyyappan.M |

# 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)



# 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](https://www.visual-paradigm.com/scrum/what-is-agile-software-development/) methodologies such as [Scrum](https://www.visual-paradigm.com/scrum/scrum-in-3-minutes/). However, burn down charts can be applied to any project containing measurable progress over time.

