**Project Planning Phase**

Date

Team ID

Project Name

Maximum Marks

18 October 2022

PNT2022TMID23457

IOT based Smart crop Protection System for agriculture

8 Marks

**Product Backlog, Sprint Schedule, and Estimation (4 Marks)**

Use the below template to create product backlog and sprint schedule

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional** | **User Story** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
|  | **Requirement (Epic)** | **Number** |  |  |  |  |
| Sprint-1 |  | US-1 | Create the IBM Cloud services which are | 8 | High | Pradigaa.B |
|  | IBM cloud |  | being used in this project. |  |  | Sandhiya.K |
|  |  |  |  |  |  | Harine Priya.A |
|  |  |  |  |  |  | Niveditha.M.G |
| Sprint-1 |  | US-2 | Configure the IBM Cloud services which are | 5 | Medium | Pradigaa.B |
|  |  |  | being used in completing this project. |  |  | Sandhiya.K |
|  | IBM cloud |  |  |  |  | Harine Priya.A |
|  |  |  |  |  |  | Niveditha.M.G |
| Sprint-2 |  | US-3 | IBM Watson IOT platform acts as the mediator | 5 | Medium | Pradigaa.B |
|  | IBM Watson Platform |  | to connect the web application to IOT devices, |  |  | Sandhiya.K |
|  |  |  | so create the IBM Watson IOT platform. |  |  | Harine Priya.A |
|  |  |  |  |  |  | Niveditha.M.G |
| Sprint-2 |  | US-4 | In order to connect the IOT device to the IBM | 7 | High | Pradigaa.B |
|  | IBM Watson Platform |  | cloud, create a device in the IBM Watson IOT |  |  | Sandhiya.K |
|  |  |  | platform and get the device credentials. |  |  | Harine Priya.A |
|  |  |  |  |  |  | Niveditha.M.G |
| Sprint-3 |  | US-1 | Configure the connection security and create | 10 | High | Pradigaa.B |
|  | Node RED Services |  | API keys that are used in the Node-RED |  |  | Sandhiya.K |
|  | And IBM Watson |  | service for accessing the IBM IOT Platform. |  |  | Harine Priya.A |
|  |  |  |  |  |  | Niveditha.M.G |
| Sprint-3 |  | US-2 | Create a Node-RED service. | 10 | High | Pradigaa.B |
|  | Node RED Services |  |  |  |  | Sandhiya.K |
|  |  |  |  |  |  | Harine Priya.A  Niveditha.M.G |

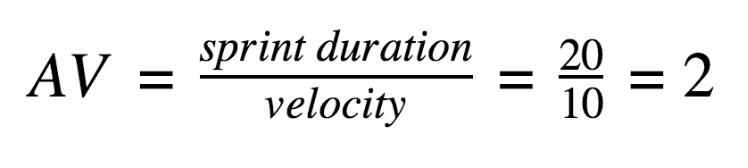
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional** | **User Story** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
|  | **Requirement (Epic)** | **Number** |  |  |  |  |
| Sprint-3 |  | US-1 | Develop a python script to publish random | 9 | High | Pradigaa.B |
|  | IBM IOT platform |  | sensor data such as temperature, moisture, |  |  | Sandhiya.K |
|  |  |  | soil and humidity to the IBM IOT platform |  |  | Harine Priya.A |
|  |  |  |  |  |  | Niveditha.M.G |
| Sprint-3 |  | US-2 | After developing python code, commands are | 6 | Medium | Pradigaa.B |
|  | IBM IOT platform |  | received just print the statements which |  |  | Sandhiya.K |
|  |  |  | represent the control of the devices. |  |  | Harine Priya.A |
|  |  |  |  |  |  | Niveditha.M.G |
| Sprint-4 |  | US-3 | Publish Data to The IBM Cloud | 8 | High | Pradigaa.B |
|  | IBM cloud |  |  |  |  | Sandhiya.K |
|  |  |  |  |  |  | Harine Priya.A |
|  |  |  |  |  |  | Niveditha.M.G |
| Sprint-4 |  | US-1 | Create Web UI in Node- Red | 9 | High | Pradigaa.B |
|  | Web UI |  |  |  |  | Sandhiya.K |
|  |  |  |  |  |  | Harine Priya.A |
|  |  |  |  |  |  | Niveditha.M.G |
| Sprint-4 |  | US-2 | Configure the Node-RED flow to receive data | 10 | High | Pradigaa.B |
|  | IBM IOT platform |  | from the IBM IOT platform and also use Cloud |  |  | Sandhiya.K |
|  |  |  | ant DB nodes to store the received sensor |  |  | Harine Priya.A |
|  |  |  | data in the cloud ant DB |  |  | Niveditha.M.G |

**Project Tracker, Velocity & Burn down Chart: (4 Marks)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **print** | **Total Story** | **Duration** | **Sprint Start Date** | | **Sprint End Date** | | **Story Points** | **Sprint Release Date** | |
|  | **Points** |  |  |  | **(Planned)** | | **Completed (as on** | **(Actual)** | |
|  |  |  |  |  |  |  | **Planned End Date)** |  |  |
| 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)



**Burn down 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 overtime.

