Project Planning Phase

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

|  |  |
| --- | --- |
| Date | 17 October 2022 |
| Team ID | PNT2022TMID51631 |
| Project Name | IOT Based Smart Crop Protection System for Agriculture |
| 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 | Registration | USN-1 | As a user, I can register for the | 2 | High | Athisaya Selva Prakash A. |
|  |  |  | application by entering my email, |  |  | Iswariya B. |
|  |  |  | password, and confirming my |  |  | Indhumathi S. |
|  |  |  | password. |  |  | Vinthiya P. |
|  |  |  |  |  |  |  |
| Sprint-1 | Login | USN-2 | As a user can login using the email | 2 | High | Athisaya Selva Prakash A |
|  |  |  | and password. |  |  | Iswariya B. |
|  |  |  |  |  |  | Indhumathi S. |
|  |  |  |  |  |  | Vinthiya P. |
|  |  |  |  |  |  |  |
| Sprint-1 |  | USN-3 | Create the IBM Cloud services | 6 | High | Athisaya Selva Prakash A |
|  |  | which are being used in this |  |  | Iswariya B.  Indhumathi S. |
|  |  | project. |  |  | Vinthiya P. |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Sprint-1 |  | USN-4 | Configure the IBM Cloud services which are being used in completing this project. | 4 | Medium | Athisaya Selva Prakash A  Iswariya B.  Indhumathi S.  Vinthiya P. |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional**  **Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
|  |  |  |  |  |  | Aathith J.G |
| Sprint-2 |  | USN-5 | IBM Watson IoT platform acts as | 5 | High | Kanjana S.K |
|  |  | the mediator to connect the web |  |  | Aarthi G.S |
|  |  | application to IoT devices, so |  |  | Durgai |
|  |  | create the IBM Watson IoT |  |  | Veerapandian S |
|  |  | platform. |  |  | Aathith J.G |
| Sprint-2 |  | USN-6 | In order to connect the IoT device | 4 | Medium | Kanjana S.K |
|  |  | to the IBM cloud, create a device in |  |  | Aarthi G.S |
|  |  | the IBM Watson IoT platform and |  |  | Durgai |
|  |  | get the device credentials. |  |  | Veerapandian S |
|  |  |  |  |  | Aathith J.G |
| Sprint-2 |  | USN-7 | Configure the connection security | 10 | High | Kanjana S.K |
|  |  | and create API keys that are used |  |  | Aarthi G.S |
|  |  | in the Node-RED service for |  |  | Durgai |
|  |  | accessing the IBM IoT Platform. |  |  | Veerapandian S |
|  |  |  |  |  | Aathith J.G |
| Sprint-3 |  | USN-8 | To create a web application create | 10 | High | Kanjana S.K |
|  |  | a Node-RED service. |  |  | Aarthi G.S |
|  |  |  |  |  | Durgai |
|  |  |  |  |  | Veerapandian S |
|  |  |  |  |  | Aathith J.G |
| Sprint-3 |  | USN-9 | Launch the cloudant DB and create a database to store the image URL | 4 | Medium | Kanjana S.K Aarthi G.S |
|  |  |  |  |  | Durgai |
|  |  |  |  |  | Veerapandian S |
|  |  |  |  |  | Aathith J.G |
| Sprint-4 |  | USN-10 | Create a cloud object storage | 5 | Medium | Kanjana S.K |
|  |  | service, create a bucket to store |  |  | Aarthi G.S |
|  |  | the images, and configure the |  |  | Durgai |
|  |  | bucket settings. |  |  | Veerapandian S |
|  |  |  |  |  | Aathith J.G |
| Sprint-4 |  | USN-11 | Develop a python script. | 6 | Medium | Kanjana S.K Aarthi G.S |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional**  **Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
|  |  |  |  |  |  | Durgai  Veerapandian S Aathith J.G |
| Sprint-4 |  | USN-12 | Develop a python script to publish random sensor data such as temperature, moisture, soil and humidity to the IBM IoT platform | 7 | High | Kanjana S.K Aarthi G.S Durgai Veerapandian S  Aathith J.G |

# 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.

