**Project Planning Phase**

|  |  |
| --- | --- |
| Date | 31october2022 |
| Team ID | PNT2022TMID24762 |
| Project Name | Signs with smart connectivity for better road safety |
| 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 | Create the IBM Cloud services which are being used in this project. | 6 | High | Ch.Karthik Virat  D.V.Sai.Kishore  A.Vishnu  Ch.Sumanth Sai |
| Sprint-1 |  | US-2 | Configure the IBM Cloud services which are being used in completing this project. | 4 | Medium | Ch.Karthik Virat  D.V.Sai.Kishore  A.Vishnu  Ch.Sumanth Sai |
| Sprint-1 |  | US-3 | IBM Watson IoT platform acts as the mediator to connect the web application to IoT devices, so create the IBM Watson IoT platform. | 5 | Medium | Ch.Karthik Virat  D.V.Sai.Kishore  A.Vishnu  Ch.Sumanth Sai |
| 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 | High | Ch.Karthik Virat  D.V.Sai.Kishore  A.Vishnu  Ch.Sumanth Sai |

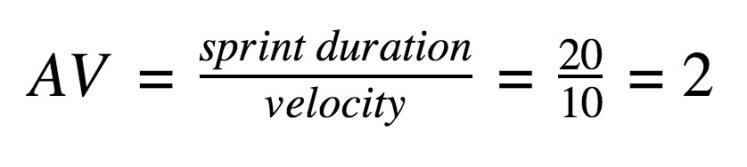
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sprint-2 |  | US-1 | Configure the connection security and create API keys that are used in the Node-RED service for accessing the IBM IoT Platform. | 10 | High | Ch.Karthik Virat  D.V.Sai.Kishore  A.Vishnu  Ch.Sumanth Sai |
| **Sprint** | **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 | Ch.Karthik Virat  D.V.Sai.Kishore  A.Vishnu  Ch.Sumanth Sai |
| Sprint-3 |  | US-1 | Develop a python script to publish random sensor data such as temperature, humidity,rain to the IBM IoT platform | 7 | High | Ch.Karthik Virat  D.V.Sai.Kishore  A.Vishnu  Ch.Sumanth Sai |
| Sprint-3 |  | US-2 | After developing python code, commands are received just print the statements which represent the control of the devices. | 5 | Medium | Ch.Karthik Virat  D.V.Sai.Kishore  A.Vishnu  Ch.Sumanth Sai |
| Sprint-3 |  | US-3 | Publish Data to The IBM Cloud | 8 | High | Ch.Karthik Virat  D.V.Sai.Kishore  A.Vishnu  Ch.Sumanth Sai |
| Sprint-4 |  | US-1 | Create Web UI in Node- Red | 10 | High | Ch.Karthik Virat  D.V.Sai.Kishore  A.Vishnu  Ch.Sumanth Sai |
| 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 the cloudant DB | 10 | High | Ch.Karthik Virat  D.V.Sai.Kishore  A.Vishnu  Ch.Sumanth Sai |

**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 burndown 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, burndown charts can be applied to any project containing measurable progress overtime.

