## **Project Planning Phase**

| Date          | 21 October 2022   |
|---------------|---|
| Team ID       | PNT2022TMID47484  |
| Project Name  | IoT- Based Safety Gadget for Child Safety Monitoring&Notification |
| 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<br>Requirement (Epic) | User Story<br>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     | Nishanthi G,pugazhmathi<br>R,Muthuamy<br>A,Harisurajkumar D |
| Sprint-1 |                                  | US-2                 | Configure the IBM Cloud services which are being used in completing this project.   | 4            | Medium   | Nishanthi G,pugazhmathi<br>R,Muthuamy<br>A,Harisurajkumar D |
| 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   | Nishanthi G,pugazhmathi<br>R,Muthuamy<br>A,Harisurajkumar D |
| 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     | Nishanthi G,pugazhmathi<br>R,Muthuamy<br>A,Harisurajkumar D |
| 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     | Nishanthi G,pugazhmathi<br>R,Muthuamy<br>A,Harisurajkumar D |
| Sprint-2 |                                  | US-2                 | Create a Node-RED service.  | 10           | High     | Nishanthi G,pugazhmathi<br>R,Muthuamy<br>A,Harisurajkumar D |
| Sprint-3 |                                  | US-1                 | Develop a python script to create the geofence and publish the location of the child to the IBM IoT platform                        | 7            | High     | Nishanthi G,pugazhmathi<br>R,Muthuamy<br>A,Harisurajkumar D |

| Sprint   | Functional<br>Requirement (Epic) | User Story<br>Number | User Story / Task   | Story Points | Priority | Team Members  |
|----------|----------------------------------|----------------------|---|--------------|----------|---|
| Sprint-3 |                                  | US-2                 | After developing python code, commands are received just print the statements which represents the location of the child                                    | 5            | Medium   | Nishanthi G,pugazhmathi<br>R,Muthuamy<br>A,Harisurajkumar D |
| Sprint-3 |                                  | US-3                 | Publish Data To The IBM Cloud   | 8            | High     | Nishanthi G,pugazhmathi<br>R,Muthuamy<br>A,Harisurajkumar D |
| Sprint-4 |                                  | US-1                 | Create Web UI in Node- Red  | 10           | High     | Nishanthi G,pugazhmathi<br>R,Muthuamy<br>A,Harisurajkumar D |
| 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 location data in the cloudant DB | 10           | High     | Nishanthi G,pugazhmathi<br>R,Muthuamy<br>A,Harisurajkumar D |

## Project Tracker, Velocity & Burndown Chart: (4 Marks)

| Sprint   | Total Story<br>Points | Duration | Sprint Start Date | Sprint End Date<br>(Planned) | Story Points<br>Completed (as on<br>Planned End Date) | Sprint Release Date<br>(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)

$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$