# **Project Planning Phase**

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

| Date          | 18 October 2022                                                      |
|---------------|----------------------------------------------------------------------|
| Team ID       | PNT2022TMID05117                                                     |
| Project Name  | IoT Based Safety Gadget for Child Safety Monitoring and Notification |
| Maximum Marks | 8 Marks                                                              |

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

| Sprint   | Functional<br>Requirement (Epic)                                                                                                                      | User Story<br>Number | User Story / Task                                                                       | Story Points | Priority |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------|--------------|----------|
| Sprint-1 | t-1 Registration (Parent Mobile User) USN-1 As a user, I can register for the application by entering my email, password, and confirming my password. |                      | 3                                                                                       | High         |          |
| Sprint-1 | Login                                                                                                                                                 | USN-2                | As a user, I will receive confirmation email once I have registered for the application | 3            | High     |
| Sprint-1 | Data Visualization                                                                                                                                    | USN-4                | As a user, I can register for the application through Gmail                             | 3            | Medium   |
| Sprint-1 | Login                                                                                                                                                 | USN-5                | As a user, I can log into the application by entering email & password                  | 3            | Low      |
| Sprint-2 | Dashboard                                                                                                                                             | USN-6                | We need to be able to view the function that can perform                                | 4            | High     |
| Sprint-2 | Notification                                                                                                                                          | USN-7                | Using minimum time we should be able to notify their parent and guardian                | 4            | High     |
| Sprint-2 | Store data                                                                                                                                            | USN-8                | We need to continuously store location data into the database                           | 3            | Medium   |
| Sprint-3 | Web UI                                                                                                                                                | USN-9                | We all will need a friendly interface to view and access the resource easily            | 3            | Medium   |

| Sprint   | Functional<br>Requirement (Epic)  | User Story<br>Number | User Story / Task                                                         | Story Points | Priority |
|----------|-----------------------------------|----------------------|---------------------------------------------------------------------------|--------------|----------|
| Sprint-3 | Registration (Parent<br>Web User) | USN-10               | By entering email and password we can log into the application as a user  | 3            | High     |
| Sprint-2 | Login                             | USN-11               | Using minimum time we need to login to registered account via web page    | 3            | High     |
| Sprint-4 | Web UI                            | USN-12               | To easily view and access the resources we need a user friendly interface | 3            | Medium   |

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

| Sprint   | Total Story<br>Points | Duration | Sprint Start Date | Sprint End Date<br>(Planned) | Story Points Completed (as on Planned End Date) | Sprint Release Date (Actual) |
|----------|-----------------------|----------|-------------------|------------------------------|-------------------------------------------------|------------------------------|
| Sprint-1 | 6                     | 6 Days   | 24 Oct 2022       | 29 Oct 2022                  | 6                                               | 29 Oct 2022                  |
| Sprint-2 | 16                    | 6 Days   | 31 Oct 2022       | 05 Nov 2022                  | 16                                              | 05 Nov 2022                  |
| Sprint-3 | 10                    | 6 Days   | 07 Nov 2022       | 12 Nov 2022                  | 10                                              | 12 Nov 2022                  |
| Sprint-4 | 14                    | 6 Days   | 14 Nov 2022       | 19 Nov 2022                  | 14                                              | 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)

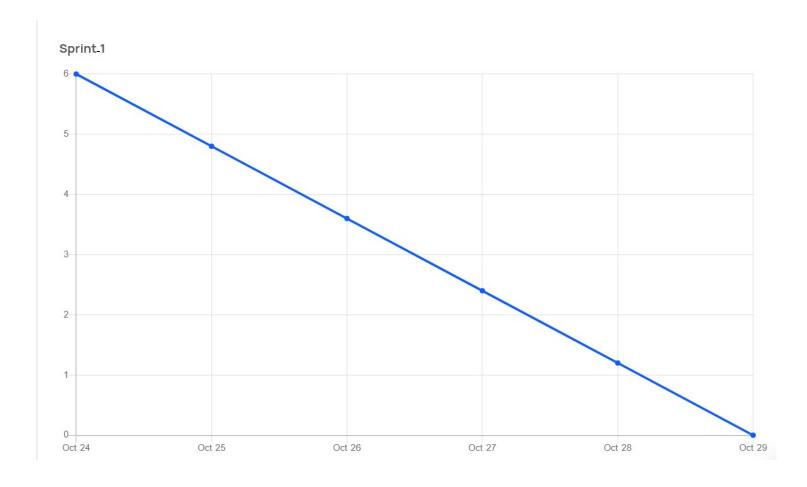
$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$

| Sprint   | Total Story Points | Duration | Average Velocity |
|----------|--------------------|----------|------------------|
| Sprint-1 | 6                  | 6 Days   | 6/6=1            |
| Sprint-2 | 16                 | 6 Days   | 16/6=2.67        |
| Sprint-3 | 10                 | 6 Days   | 10/6=1.67        |
| Sprint-4 | 14                 | 6 Days   | 14/6=2.33        |
| Total    | 46                 | 24 Days  | 46/24=1.91       |

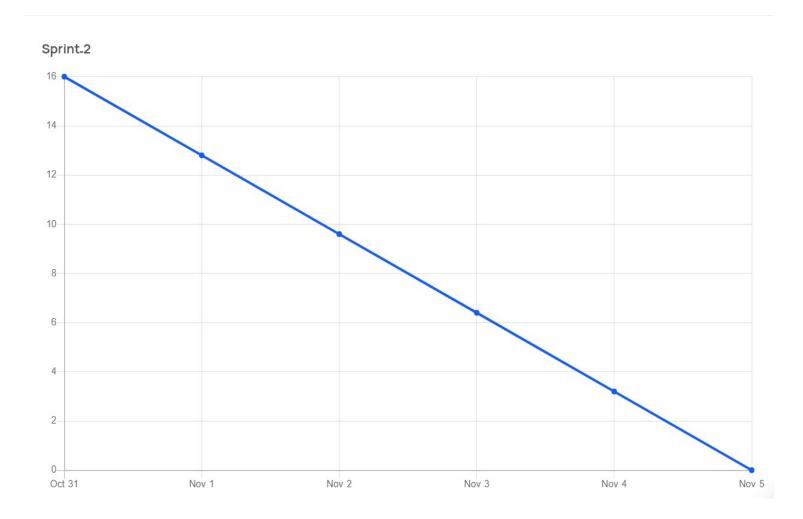
#### **Burndown Chart:**

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

Sprint - 1:



Sprint - 2:

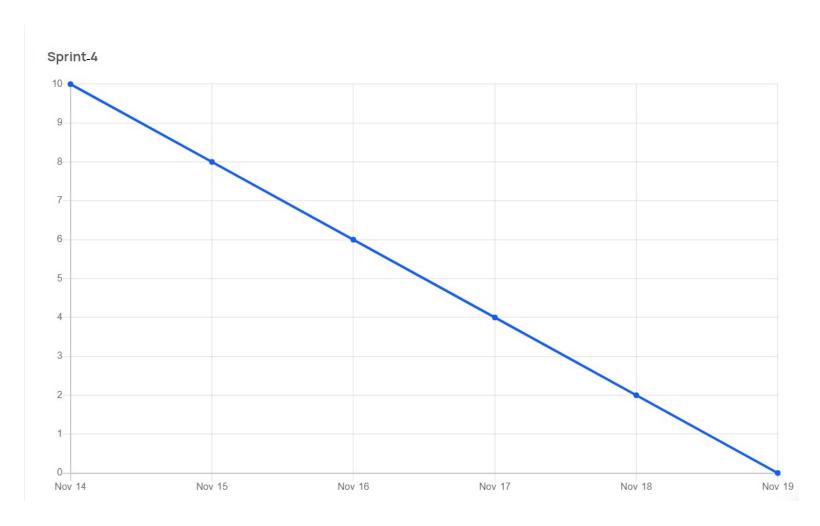


## Sprint - 3:





Sprint - 4:



# **Overall burndown chart:**

