## **Project Design Phase-II**

### **Solution Requirements (Functional & Non-functional)**

| Date          | 03 October 2022                                              |
|---------------|--------------------------------------------------------------|
| Team ID       | PNT2022TMID32676                                             |
| Project Name  | Virtual eye-lifeguard for swimming pools for active drowning |
| Maximum Marks | 4 Marks                                                      |

#### **Functional Requirements:**

#### Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirements (Epic) | Sub Requirement (Story/Sub-<br>Task)                                       |
|--------|--------------------------------|----------------------------------------------------------------------------|
| FR-1   | Installation                   | Camera will be fixed under the water in the swimming pool.                 |
| FR-2   | Login/Registration             | User Register and login using their email.                                 |
| FR-3   | Audio                          | Will be calm if the person is unconscious or ask for help                  |
| FR-4   | Support                        | Take the help from medical team                                            |
| FR-5   | Prior Alert                    | Alert message sends to the rescue team                                     |
| FR-6   | Dashboard                      | AI detections are clearly displayed to the user with respect to the input. |

# **Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution

| FR No. | Non-Functional<br>Requirement | Description                                                                                                                                                            |
|--------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NFR-1  | Usability                     | To provide safety for every person in the swimming pool from drowning.                                                                                                 |
| NFR-2  | Security                      | An alarm will be there to alert and alert message will send to rescue team to save the live of the person in the swimming pool.                                        |
| NFR-3  | Reliability                   | Virtual eye lifeguard gives instant alerts by alarms and the results will be accurate.                                                                                 |
| NFR-4  | Performance                   | The alerts were given immediately when drowning is detected.                                                                                                           |
| NFR-5  | Availability                  | All necessary equipment like water tubes, ropes, first aid kit, life hooks will be available.                                                                          |
| NFR-6  | Scalability                   | Virtual eye lifeguard identifies drowning and it will alert immediately. It features the latest artificial intelligence technology and work with the need of the user. |