

## Project Design Phase-II

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

Date	03 October 2022
Team ID	PNT2022TMID36512
Project Name	Virtual Eye – Life Guard for Swimming pools to Detect Active Drowning
Maximum Marks	4 Marks

#### Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Installation	Needed to be fixed under the water without creating any disturbance to the people in the swimming pool.
FR-2	Detection	Detecting the human bodies and counting.
FR-3	Audio	Ask for help or stay quiet if the person is unconscious.
FR-4	Support	Take swim tubes or take the help of rescue.
FR-5	Pulse Rate Sensor	A pulse sensor on that <b>measures the changes in light absorption and reflection on to the skin to measure blood flow.</b>
FR-6	Prior Alert	Send alert message to the lifeguard.

#### Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	To ensure the safety of each and every person present in the pool. A Lifeguard should be present all the time in the pool.
NFR-2	Security	Lifeguards should be aware of the alert message to save the life of the swimmer.

NFR-3	Reliability	Virtual eye lifeguard trigger an immediate prior alarm if a swimmer is in peril, helping to avoid panic even in critical situations.
NFR-4	Performance	The alarm is triggered when the swimmer's pulse rate is decreasing.
NFR-5	Availability	Equipment and accessories include lifesaver rings, inflatable vests, a Shepherd's Crook, life hooks, spine boards, rescue tubes, and a first aid kit. Remember to keep them accessible to quickly pull Someone from the water safety.
NFR-6	Scalability	It detects potential drowning and promptly notifies you. It features the latest artificial intelligence technology and adapts the needs of the user.