

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	03 October 2022
Team ID	PNT2022TMID24074
Project Name	VirtualEye - 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	User registration	Register via Email/Phone number and get verified for further use
FR-3	Deduction	Either not moving or in unconscious state
FR-4	Support	Take swim tubes or take the help of a rescuer.
FR-5	Alert	Set alarm and send message through the application to lifeguard.
FR-6	Output	Vision based monitor Image, position and movement detection Drowning is detected Rescue drowning people by LifeGuard

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	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	<b>Security</b>	Lifeguards should be aware of the alert message to save the life of the swimmer.
NFR-3	<b>Reliability</b>	Virtual eye lifeguard triggers an immediate prior alarm if a swimmer is in peril, helping to avoid panic even in critical situations.
NFR-4	<b>Performance</b>	The alarm is triggered when the swimmer is detected as drowning
NFR-5	<b>Availability</b>	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 safely.

NFR-6	<b>Scalability</b>	Virtual eye lifeguard detects potential drownings and promptly notifies you. It features the latest artificial intelligence technology and adapts to the needs of the user.
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