

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

Date	05 November 2022
Team ID	PNT2022TMID00309
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	Should fix the cameras underwater and in the ceilings
FR-2	Detection	Note when there's terrifying reaction and unconsciousness
FR-3	Alert System	Warn/Intimate the lifeguards immediately
FR-4	Audio/Video feeds	Use it for reference data
FR-5	Support	Use swimming tubes and guidance of lifeguard
FR-6	Pulse rate sensor	Detect anomalies in heart rate

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	System should be used by knowing all the features appropriately and using it effectively.
NFR-2	<b>Security</b>	The video feeds should not be used for other purposes
NFR-3	<b>Reliability</b>	Immediate action should be taken after the trigger of warning
NFR-4	<b>Performance</b>	Accurate results should be provided
NFR-5	<b>Availability</b>	The monitoring should be done continuously while the pool is being used anytime. Also vests and tubes for rescue should be there.
NFR-6	<b>Scalability</b>	The system should be cost effective. It should be practically implementable.