

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

<b>Date</b>	<b>15 October 2022</b>
<b>Team ID</b>	<b>PNT2022TMID23045</b>
<b>Project Name</b>	<b>Project – Virtual Eye - Life Guard for Swimming Pools to Detect Active Drowning</b>
<b>Maximum Marks</b>	<b>4 Marks</b>

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

<b>FR No.</b>	<b>Functional Requirement (Epic)</b>	<b>Sub Requirement (Story / Sub-Task)</b>
FR-1	<b>User Registration</b>	User should register his/her information in the application
FR-2	<b>User Confirmation</b>	User gets a verification mail for the first time he/she signs up
FR-3	<b>Installation of camera</b>	A camera is installed above the surface of the water to constantly monitor all the persons swimming in the pool to detect active drowning
FR-4	<b>Setting up an alarm</b>	An alarm is set to alert the lifeguard in case of detection of active drowning
FR-5	<b>Differentiation between tones</b>	Difference between alarm tones are set to detect drowning of people from different age groups
FR-6	<b>Emergency</b>	Alerting another lifeguard and an ambulance in case of emergency

## Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Everyone should be able to understand the UI and find the necessary information without the need for any specialised training. Depending on the needs, various languages can be provided.
NFR-2	<b>Security</b>	The system will keep all footage it records private and secure from unauthorised access. Any footage would only be accessed with prior approval during an investigation.
NFR-3	<b>Reliability</b>	The system's incident reporting is very accurate. Once it is installed, the only way the system could malfunction is if routine maintenance is neglected.
NFR-4	<b>Performance</b>	With a rapid response time, the system's performance is determined by how quickly the lifeguard responds to the alarm without any latency.
NFR-5	<b>Availability</b>	The System should remains operational all the time and must be recovered within an hour or less if it fails. The system should continue to work seamlessly without any hitch..The system should respond to the requests as soon as possible.
NFR-6	<b>Scalability</b>	The system should handle a growing amount of work by adding additional resources to the system in future. The system can also be installed in a variety of locations, including public schools, workplace complexes, and large open Spaces if needed.