

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

Date	03 October 2022
Team ID	PNT2022TMID54220
Project Name	Virtual Eye – Lifeguard 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	User Registration	Registration via Phone number Registration via E-Mail
FR-2	User Confirmation	Confirmation via OTP Confirmation via E-Mail
FR-3	Camera Installations	Locating at perfect places for entire field of view of the pool Monitor the swimmers and detect active drowning
FR-4	Alarms	Has to be triggered to alert lifeguards
FR-5	Outcome	Position and movement monitoring Drowning if occurs detected Rescue action taken

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	User-Friendly and can be used by anyone
NFR-2	Security	Highly secure as all processing is done in IBM Cloudant DB
NFR-3	Reliability	Trustworthy software that promises privacy and exception handling is far good
NFR-4	Performance	High resolution cameras are used to capture frames. Deep learning is used for processing and perfectly synced with alarms to trigger when drowning is detected
NFR-5	Availability	24/7 availability
NFR-6	Scalability	The scale of use can be easily adopted by changing the number of cameras required to cover the pool .