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

Date	03 October 2022
Team ID	PNT2022TMID35350
Project Name	Project - VirtualEye- 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	Onboarding	The user needs to be fully aware of the system's functionalities and working by reading the manual
FR-2	Installation	Install the underwater cameras in appropriate angles and set up the alarm and monitor
FR-3	Detection	The model needs to identify potential victims by analysing their movements
FR-4	Alerting	The lifeguard receives an audio alert indicating a possible drowning victim
FR-5	Monitor	The lifeguard checks the monitor to pinpoint the location of the person in need
FR-6	Reset	Once the situation is under control the lifeguard switches off the alarm, and the system continues to search for people in danger

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Pool goers are safe and the lifeguards have extra support
NFR-2	**Security**	All of the data in the cloud is secure and cannot be accessed by a third party
NFR-3	**Reliability**	The AI model has a high accuracy rate
NFR-4	**Performance**	The model is constantly searching for people in need, aiding lifeguards
NFR-5	**Availability**	Is widely available and can be installed in all pools
NFR-6	**Scalability**	The system is constantly monitoring the pool, thereby training itself and improving the accuracy of the model