Project Design Phase-I
Proposed Solution Template

Date	30 October 2022
Team ID	PNT2022TMID41755
Project Name	VirtualEye - Life Guard For Swimming Pools To Detect Active Drowning
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Swimming pools are generally places of fun and healthy exercise, but they can be deadly as well. Even with a lifeguard observer on duty, swimmers may still have trouble in underwater or in parts of the pool beyond the lifeguard's field of view.
2.	Idea / Solution description	In this project, we use Artificial Intelligence. We install the cameras in underwater to detect the drowning people. Using deep learning, image can be recognized. If the image is detected, it triggers the alarm to alert the Life Guard who rescue the drowning peoples.
3.	Novelty / Uniqueness	The uniqueness of our system software is used to find the swimmer's age along with drowning status so it will be helpful for the swimmer to save the children first incase of 3 or more accident take place at same time. We use YOLO v3 Algorithm to detect the person is drowning or not in accurate time .
4.	Social Impact / Customer Satisfaction	Drowning globally has a higher death rate and is also the third leading cause of unexpected deaths worldwide, especially among children under the age of six. To overcome this conflict our drowning detection system will have an impact on society.
5.	Business Model (Revenue Model)	We can introduce the software-based approach for making a good income. It is extremely useful to lifeguards, swimmers and business operators. The number of features makes it attractive for end users to use our software system.

6.	Scalability of the Solution	Our software system can be used by the company driver who manages the pools. We use the IBM cloud server to collect and maintain the data. We will ensure the safety of the swimmers.