Project Design Phase-I
Proposed Solution Template

Date	23 October 2 0 2 2
Team ID	PNT2022TMID37847
Project Name	VirtualEye - Life Guard for Swimming Pools to Detect Active Drowning
Maximum Marks	2 Marks

Proposed Solution Template:

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Swimming pools are generally places of fun and healthy exercise, but swimmers, who are inexperienced may be more prone to unexpected mishaps such as drowning even when a life-guard is on-duty.
2.	Idea / Solution description	In this project we use AI that works based on YOLO v5 Algorithm. It helps detect potential drowning subjects at individual frame level from a video feed being generated off of a camera that's planted over the swimming pool. Upon a positive detection the life-guard would be alerted through the web application.
3.	Novelty / Uniqueness	The proposed system detects the drowning subjects using an AI that's based off of a YOLO v5 model which yields high accuracy and fast detection speeds.
4.	Social Impact / Customer Satisfaction	With the device planted, the subject would feel safer as it would alert life-guards in case of an active drowning.
5.	Business Model (Revenue Model)	Software based approach can be done for individual clients & adding more features and integrations in future updates would make it profitable for business prospects.
6.	Scalability of the Solution	The system uses IBM Cloud to collect and maintain data, which is also scalable-friendly.