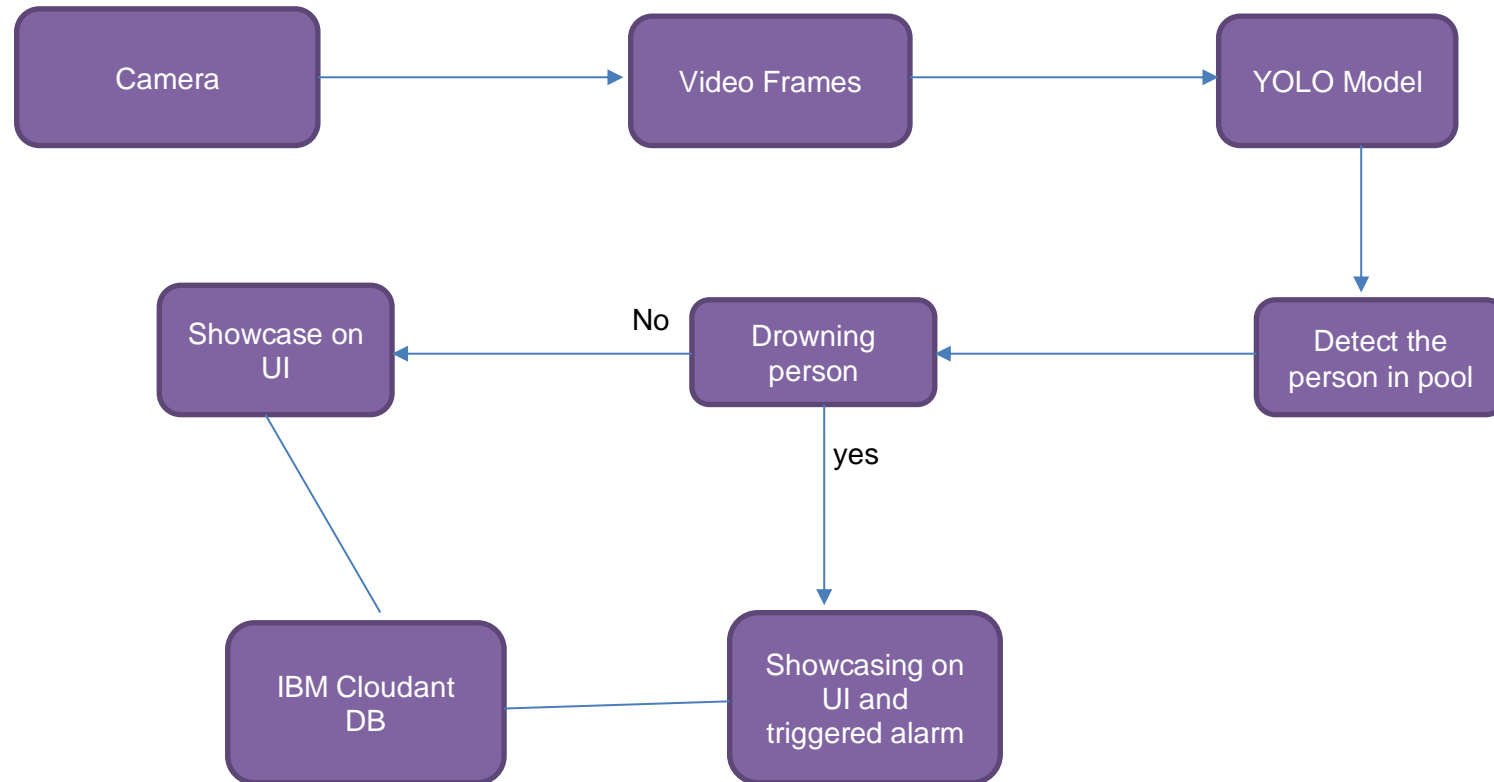| Date	03 October 2022
Team ID	PNT2022TMID47734
Project Name	Project - VirtualEye - Life Guard for Swimming Pools to Detect Active Drowning
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application	HTML, CSS, JavaScript
2.	Application Logic-1	Frames extraction from the live video	Python
3.	Application Logic-2	Detecting person	Python
4.	Application Logic-3	Drowning detection	Python
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL
6.	Cloud Database	Database Service on Cloud	IBM Cloudant
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	Machine learning Model	Detecting human beings	Object detection model(YOLOv7)
9.	Infrastructure (Server / Cloud)	Application Deployment on Cloud	Cloud Foundry, Docker

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Anaconda Navigator, Pytorch, Flask	Technology of Opensource framework
2.	Security Implementations	Security and access control	IAMControls
3.	Scalable Architecture	Scalable architecture can load without compromising the application integruty	Microservices, Progressive web apps

S.No	Characteristics	Description	Technology
4.	Availability	Use ofload balancers, distributed servers	IBM Cloud
5.	Performance	Designing the system software that can monitor a wide range of swimming pool at a time without anny delay	IBM instance