Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	14 October 2022
Team ID	PNT2022TMID30129
Project Name	VIRTUAL EYE - LIFE GUARD FOR SWIMMING POOLS TO DETECT ACTIVE DROWNING
Maximum Marks	4 Marks

Technical Architecture:

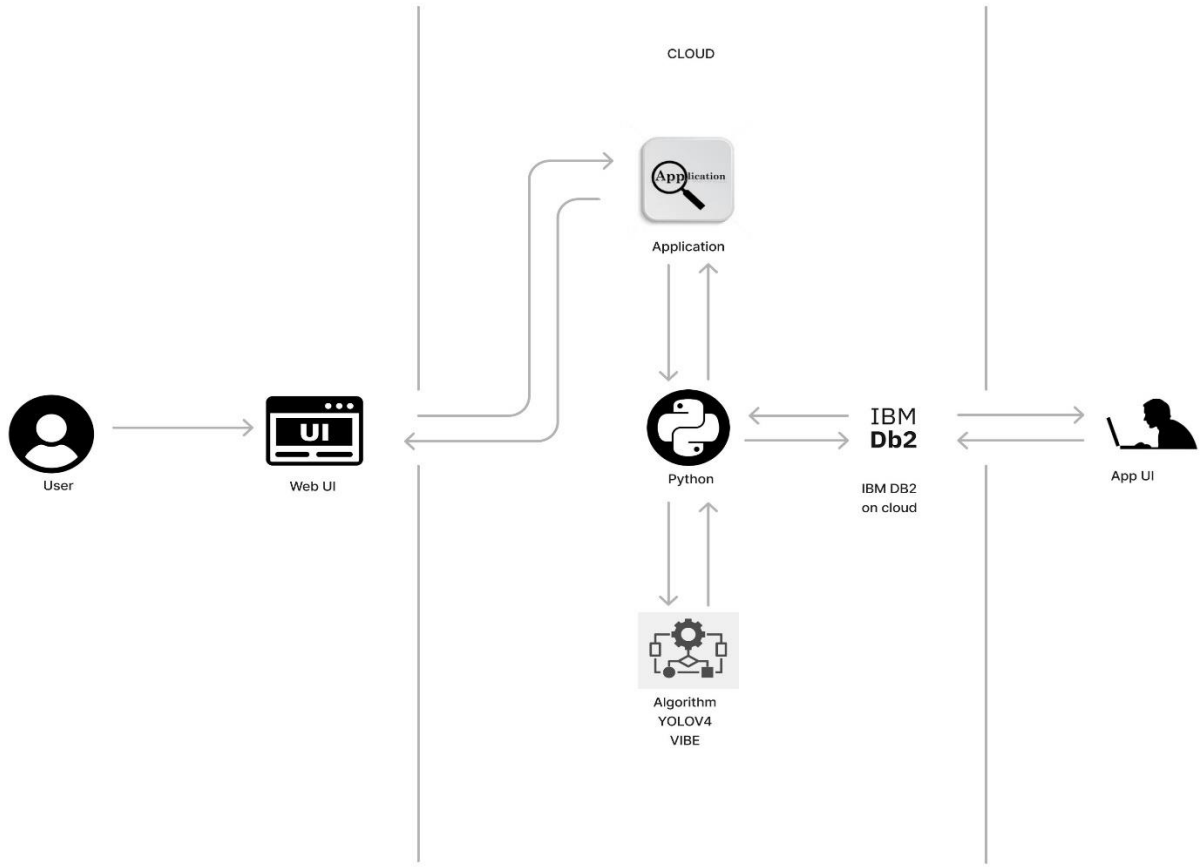

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Application builds for interaction with user	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application pre-processing	We should Pre-process the model using datasets	Python (Jupiter)
3.		Train the model for image extraction	Python (Jupiter)
4.		Models has to be tested with dataset	python
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	Requirements for the file storage	IBM Block Storage or Other Storage Service
8.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc. YOLOv4 model
9.	Infrastructure (Server / Cloud)	Application Deployment on Cloud Local Server Configuration: Cloud Server Configuration:	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Python (Anaconda) open-source frameworks used	python
2.	Security Implementations	Camera surveillance	AI
3.	Scalable Architecture	3 – tier Architecture	Python
4.	Availability	All the time persons are under surveillance	AI
5.	Performance	Detect the drowning person at very short duration with the help of band and alarm	Python, VIBE, YOLO Model