Project Title: VirtualEye - Life Guard for Swimming Pools to Detect Active Drowning **Project Design Phase-I - Solution Fit** **Team ID:** PNT2022TMID32676

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

Owners of stadium,schools and localities having swimming pools were the customers.

6. CUSTOMER CONSTRAINTS CC

- Installation cost is high.
- Cameras should be maintained properly for good results.
- Network connectivity should be good for faster alert transmission.
- 24/7 Power supply should be available.

5. AVAILABLE SOLUTIONS AS

Earlier days drowning of individuals were identified by manual monitoring by the swimming pool attendant but it has some difficulties like not able to monitor all the individuals in the swimming pool.

SOLUTION:

We use YOLO model in drowning detection, the accuracy of detecting active drowning is high

As many cameras were installed everyone is being monitored at a time and the alerts are given instantly.

MERITS:

Alerts were given instantly.

DEMERITS:

Detection becomes difficult if the pool is clumsy.

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS J&P

- There Is A Safety Flaw To Swimmers As They Might Drown In Certain Conditions as There Is No Assurance That The Swimmer Is Always Healthy And Conscious In The Pool.
- It is a difficult task to keep an eye on all the swimmers/individuals at the same time.

9. PROBLEM ROOT CAUSE RC

The root cause for the problem to occur is that many don't have health conscious and leads to drowning.

Another reason is not having proper training.

And for a attendant during clumsy situation it is difficult to monitor all the individuals.

7. BEHAVIOUR BE

DIRECTLY RELATED:

- Finding the best drowning system by analysing the performance and rating of the system,,checking cost efficiency,feasibility and the total capital cost needed for installation .

INDIRECTLY RELATED:

- Customers hire for pool attendants to monitor the swimmers individually.

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS TR

- It has high accurate results in drowning detection.
- It sends Alerts.
- It has an automated and manual alert system.
- It is built using Standard Technologies.

10. YOUR SOLUTION SL

- Using our model and the CNN and YOLO algorithms, we can forecast drowning incidents in swimming pools.To obtain very accurate results, we specifically use version 7 of the YOLO algorithm.
- Annually 1.2 million individuals confront spontaneous passing due to suffocating globally. This passing rate will be decreased by actualizing this solution.
- Thus it may be a lifesaving show, it can be utilized by fledglings and unpredictable swimmers. It cautions close by swimmers who protect the suffocating one.

8.CHANNELS of BEHAVIOR CH

8.1 ONLINE

Dashboard access to live AI detection.

8.2 OFFLINE

Customers can use Customer support.

Identify strong TR & EM

4. EMOTIONS: BEFORE / AFTER EM

BEFORE:

Before the usage of Active drowning detection,identifying and rescuing drowning individuals was difficult.

AFTER:

After the introduction of Active drowning detection,the drowning individuals were detected and the alerts were given instantly.