# රේ H Identify strong

### 1. CUSTOMER SEGMENT(S)

CS

#### 6. CUSTOMER CONSTRAINTS

CC

RC

#### 5. AVAILABLE SOLUTIONS

AS

Any swimmers and kids/elderly people who are at the initial stage of swimming can use this project to safeguard themselves from accidental drowning by the help of this device and pool lifeguard.

In this a best Pulse Rate sensor is used to detect the pulse rate of every swimmer it helps to prevent fro drowning accident .

Prediction process take place only after drowning But we used Deep learning algorithm for Pulse rate detection so that there is a chance for predicting the drowning accident at earlier stage

Merits: predict before drowning under water **Demerits**: If network is not available then it doesn't give a result.

#### 2. PROBLEMS

J&P

TR

EM

place

## 9. PROBLEM ROOT CAUSE

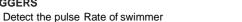
7. BEHAVIOUR

BE

Focus on J&P, tap into BE, understand

- Beginners, often feel it difficult to breathe underwater which causes breathing trouble which in turn causes a drowning accident in swimming pool
- As water is much denser than air, so there is much more resistance preventing people from being able to move through it guickly and freely so sometimes even the experienced people will find difficulty to swim.
- The main problem is an alert is being sent to Lifeguard only after the person is drowned down.
- however, they cannot save a person before drowning down
- · Saving people life
- · Take effective action in emergency situation
- · Attentive and energetic

#### 3. TRIGGERS



- Send an alert message to the LlfeGuard
- Helpful for earlier prediction of drowning

#### 10. YOUR SOLUTION



- Swimming is one of the best exercise that reduce the stress but because of certain reason the drowning accident take
- In our project we used pulse rate detection so there is an chance for earlier prediction and help to avoid the drowning accident.

#### 8. CHANNELS of BEHAVIOUR



- 1. ONLINE
- 1. Accurate pulse rate detection

Extract online & offline CH of

#### 8.2 OFFLINE

Unaccurate pulse rate detection

#### 4. EMOTIONS: BEFORE / AFT ER

Before the detection of active drowning there were many drowning accident worldwide after this , they can only save the drowning person after he/she is drowned down by sending an alert to Lifeguard



