

## Project Design Phase-I Problem – Solution Fit

Date	16 October 2022
Team ID	PMT2022TMID51724
Project Name	Virtual Eye - Life Guard For Swimming Pools To Detect Active Drowning
Maximum Marks	2 Marks

### Problem – Solution Fit :

<p><b>1. CUSTOMER SEGMENTS</b></p> <p>Every candidate attending a National pool lifeguard qualification (NPLQ) course must be 16-years-old and jump or dive into deep water. swim 50 metres in less than 60 seconds. the average age of an employed certified lifeguard is 26 year old</p>	<p><b>6. CUSTOMER CONSTRAINTS</b></p> <p>In this a human guard is used to detect every swimmer, it helps to prevent from drowning accident</p>	<p><b>5. AVAILABLE SOLUTIONS</b></p> <p>Prediction process take place only after drowning but we used deep learning algorithm for pulse rate detection so that there is a change for predicting the drowning accident at earlier stage</p> <p>Merits: predict before drowning under water. demerits: if network is not available then it doesn't give a result.</p>
<p><b>2. PROBLEMS</b></p> <p>a). Beginners, often feel it difficult to breathe underwater which cause breathing trouble which in turn causes a drowning accident in swimming pool</p> <p>b). As water is much denser than air, so there is much more resistance preventing people from being able to move through it quickly and freely so sometimes even the experienced people will find difficult to swim.</p>	<p><b>9. PROBLEM ROOT CAUSE</b></p> <p>a). The main problem is an alert is being sent to lifeguard only after the person is drowned down.</p> <p>b). however, they cannot save a person before drowning down.</p>	<p><b>7. BEHAVIOUR</b></p> <p>a). saving people life</p> <p>b). Take effective action in emergency situation</p> <p>c). Attentive and energetic.</p>
<p><b>3. TRIGGERS</b></p> <p>a). detect the pulse rate of swimmer</p> <p>b). sent an alert message to the life guard</p> <p>c). Helpful for earlier prediction of drowning</p>	<p><b>10. YOUR SOLUTION</b></p> <p>a). swimming is one of the best exercise that reduce the stress but because of certain reason that drowning accident take place</p> <p>b). in our project we used pulse rate detection so there is a change for earlier prediction and help to avoid the drowning accident</p>	<p><b>8. CHANNEL OF BEHAVIOUR</b></p> <p><b>1. ONLINE</b></p> <p>a). Accurate pulse rate detection</p>
<p><b>EMOTIONS; BEFORE/AFTER</b></p> <p>before the detection of active drowning there were many drowning accident world after this they can only save the drowning after this she drowning by the send and alert to the life guard</p>		<p><b>8.2 OFFLINE</b></p> <p>unaccurate pulse rate detection</p> <p style="text-align: right;">miro</p>