

## Project Design Phase-I Problem Solution Fit

Date	17 November 2022
Team ID	PNT2022TMID44672
Project Name	Virtual Eye – Life Guard For Swimming Pools To Detect Active Drowning
Maximum Marks	2 Mark

Define CS, fit into BE	<b>1. CUSTOMER SEGMENT(S)</b> <span style="float: right;">CS</span> 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.	<b>6. CUSTOMER CONSTRAINTS</b> <span style="float: right;">CC</span> Spending power, budget and available device	<b>5. AVAILABLE SOLUTIONS</b> <span style="float: right;">AS</span> A wristwatch is used and Goggles are used along with this. <b>Merits :</b> predict the drowning person under water <b>Demerits :</b> If network is not available then it doesn't give a result.	Explore AS, fit into BE	
	<b>2. PROBLEMS</b> <span style="float: right;">J&amp;P</span> <ul style="list-style-type: none"> <li>Beginners, often feel it difficult to breathe underwater which causes breathing trouble which in turn causes a drowning accident in swimming pool</li> <li>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 difficulty to swim.</li> </ul>	<b>9. PROBLEM ROOT CAUSE</b> <span style="float: right;">RC</span> <ul style="list-style-type: none"> <li>Unfamiliar with swimming</li> <li>Swimmers medical condition</li> </ul>	<b>7. BEHAVIOUR</b> <span style="float: right;">BE</span> <ul style="list-style-type: none"> <li>Saving people life</li> <li>Take effective action in emergency situation</li> <li>Attentive and energetic</li> </ul>		Focus on J&P, tap into BE, understand BE
	<b>3. TRIGGERS</b> <span style="float: right;">TR</span> <ol style="list-style-type: none"> <li>Identify the drowning person by camera</li> <li>Send an alert message to the Lifeguard</li> </ol>	<b>10. YOUR SOLUTION</b> <span style="float: right;">SL</span> <ul style="list-style-type: none"> <li>Swimming is one of the best exercise that reduce the stress but because of certain reason the drowning accident take place</li> <li>In our project, we use to show swimmer's Age along with drowning status so that a lifeguard can save the children incase of 3 or more drowning occurs at sametime by using Open CV age detection algorithm using deep learning</li> </ul>	<b>8. CHANNELS of BEHAVIOUR</b> <span style="float: right;">CH</span> <ol style="list-style-type: none"> <li>ONLINE               <ol style="list-style-type: none"> <li>Accurate drowning detection</li> </ol> </li> <li>OFFLINE               <ol style="list-style-type: none"> <li>Unaccurate drowning detection</li> </ol> </li> </ol>		
<b>4. EMOTIONS: BEFORE / AFTER</b> <span style="float: right;">EM</span> 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					



