

## Project Design Phase-I Problem – Solution Fit

Date	1 <sup>st</sup> October 2022
Team ID	PNT2022TMID19483
Project Name	Industry specific intelligent fire management system
Maximum Marks	2 Marks

### Problem – Solution Fit :

<div style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;"> <b>1. CUSTOMER SEGMENT(S)</b>           Our project is specified for conventional industries.       </div>	<div style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;"> <b>6. CUSTOMER CONSTRAINTS</b>   <ul style="list-style-type: none"> <li>• Improper communication</li> <li>• Panic ness to the situation</li> <li>• Lack of awareness</li> </ul> </div>	<div style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;"> <b>5. AVAILABLE SOLUTIONS</b>   <ul style="list-style-type: none"> <li>• Traditionally fire extinguisher is used to contain fire in the buildings.</li> <li>• Then later fire sprinklers aids the problem.</li> <li>• As the technology advances Internet of things playing huge part in fire management systems.</li> </ul> </div>
<div style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;"> <b>2. JOBS-TO-BE-DONE /PROBLEMS</b>           Now a days fire accident in buildings has become a very common incident. As the structural design of modern buildings are complex and augmented fire accident victims often find it difficult to identify a safe path to exit the building.           Fire alarm systems promise to be Effective if they can generate reliable and fast fire alerts with exact location of fire.       </div>	<div style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;"> <b>9. PROBLEM ROOT CAUSE</b>           Exposed wiring, overloaded outlets, overloaded circuits, static discharge are common fire hazards.           The source of the fire can be anywhere it may just cause a spark and the dust may become the ignition source.       </div>	<div style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;"> <b>7. BEHAVIOUR</b>           Usage of fire extinguisher           Internet of things can communicate with the help of processors and wireless networks without any human being involved.           For this reason, with a view to reducing these brutal deaths and tragedy of the affected mass, an effective IoT based intelligent system can be developed.       </div>
<div style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;"> <b>3. TRIGGERS</b>           It vital to make use of robust monitoring system.       </div>	<div style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;"> <b>10. YOUR SOLUTION</b>   <ul style="list-style-type: none"> <li>• The smart fire management system includes a Gas sensor, Flame sensor and temperature sensor to detect any change in the environment</li> <li>• Based on the threshold value of sensors further process is structured</li> <li>• If any flame is detected the sprinklers will be switched on automatically</li> <li>• Emergency alerts are notified to the end user and Fire station</li> </ul> </div>	<div style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;"> <b>8. CHANNELS of BEHAVIOUR</b>          1. ONLINE           General knowledge related to containing fire attacks           8.2 OFFLINE           Using fire extinguisher and sand buckets       </div>