Project Design Phase-I - Solution Fit

**Project Title:** Gas Leakage Monitoring and Alerting System **Team ID:** PNT2022TMID51059

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| **1.CUSTOMER SEGMENTS**   * For industry owner-Ensuring the safety of workers is the main thing. * Industry producing gases * Suburban sites like mines * Research centres | **6. CUSTOMER CONTRAINTS**   * Lack of technical resources * Inadequate alerting system * Less Knowledge about the gas disasters * Poor budget allocation | **5. AVAILABLE SOLUTIONS**   * Usage of sensors to sense gas Leakage. * Buzzer to indicate the leakage. * GSM module helps us to get notification when there is a gas leakage. |  |

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|  | 1. **JOBS-TO-BE-DONE / PROBLEMS**    * Capability of the detect the unusual gas leakage    * Objective of the design Is to monitor the acquired data and transmissio0n smoothly | **9. PROBLEM ROOT CAUSE**   * Inefficient working of sensor can cause the major problem. * Location of the device installation and the network plan used by the user are the root cause of the network issue. * Improper maintenance of pressure gauges | **7. BEHAVIOUR**   * Network issue is very common as most of the industries are located at the country side. Here contact both the developers and the service providers. * To determine the gas characteristics and solve the issue, they will locate the leak and identify the warning. |  |

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| **3.TRIGGERS**   * Accidents due to gas leakages and loss of physical property and life. * Safe precautions for the workers to work without fear. * Handy to use and easy to install | **10. YOUR SOLUTION**   * Low cost IOT based device that can be easily accessed and fixed by people. * Network strength must be boosted in the device. * Device can be manufactured in multiple standards based on the environment. | **8. CHANNELS OF BEHAVIOUR**  **ONLINE**   * Monitor the status of the sensors * Notification incase of any gas leakage.   **OFFLINE**   * Prevent physical damage to sensor. * Provide proper network and power supply to sensors. * Complaint letters. |  |
| **4.EMOTIONS:Before/After**   * Before they face difficulties monitering and finding the place of gas leakage * After it improves efficiency |