Project Design Phase-I
Problem Solution Fit

Project Title: Gas Leakage Monitoring and Alerting System   **Team ID:** PNT2022TMID7276

1.CUSTOMER SEGMENTS	6. CUSTOMER CONTRAINTS	5. AVAILABLE SOLUTIONS
✓ For industry owner-Ensuring the safety of workers is the main thing. ✓ Sometimes it is hard to identify the area where the leakage occurs. ✓ The detection of leakage prevents the loss of lives	✓ Proper maintenance should be taken atleast once in a month and this prevents the customers from taking actions in gas leakage problem.	✓ 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.

2.JOBS-TO-BE-DONE / PROBLEMS	9. PROBLEM ROOT CAUSE	7. BEHAVIOUR
✓ Capability of the device to withstand in harsh environment is questionable. ✓ Due to network issue data couldn't be uploaded to the cloud at all times.	✓ Sometimes sensor doesn't work properly which 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.	✓ 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.

3. TRIGGERS	10. YOUR SOLUTION	8. CHANNELS OF BEHAVIOUR
✓ Accidents due to gas leakages and loss of physical property and life. ✓ Safe precautions for the workers to work without fear.	✓ 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.	**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 the action is taken the user feels deceived and cheated. ✓ After the problem is resolved user feels the sincerity of the developer		