PROJECT DESIGN PHASE - 1

PROJECT TITLE: GAS LEAKAGE MONITORING AND ALERTING SYSTEM
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1.CUSTOMER SEGMENT(S): It targets industry owners and workers. The main aim is to ensure the safety of workers from gas leakages that may occur in an industry.	**6.CUSTOMER:** To make sure that gas does not leak from anywhere, proper and regular maintenance must be done on the equipment. This might be expensive. CC 6	**5. AVAILABLE SOLUTIONS:** Sensors can be used to detect gas leakage and a buzzer can indicate the same. If there is a gas leakage, GSM module helps us to get appropriate notifications. This might be easier to implement but can be more expensive.
2. JOBS-TO-BE-DONE / PROBLEMS: Due to certain network or connectivity issues, the reliability of data transfer in the real time system might be affected. The system might not withstand extremely harsh environmental conditions.	**9. PROBLEM ROOT CAUSE:** Gas leakage might be caused due to usage of unreliable metal to metal seals or poor tubing during the construction of gas lines.	**7. BEHAVIOUR** Regular inspections can be done to find out areas in which there are gas leakages. Some detection systems can be hardwired to detect leaks. In the case of wireless systems, if there are network issues, the service provider or the helpline can be contacted.
3.TRIGGERS: Reports in the news about the accidents due to gas leakage and concern for the safety of workers might encourage customers to take action. **4.EMOTIONS BEFORE / AFTER:** When a problem arises suddenly, the user might feel confused and scared and when the problem is resolved, the user might feel relief and a sense of success.	**10.YOUR SOLUTION:** To develop a cost effective IOT based system that can be easily accessed and manipulated by the customers so that gas leakages are detected at the earliest possible time.	**8.CHANNELS OF BEHAVIOUR:** **8.1 ONLINE:** The status of the sensor is continuously monitored and notification is received if there is any gas leakage. **8.2 OFFLINE:** Ensure that proper network and power is supplied to the system for it to work efficiently and prevent any physical damage that might occur to the sensor.