Project Design Phase-I

Problem Solution Fit

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Team ID	PNT2022TMID05241
Project Name	Gas Leakage Monitoring and Alerting System for Industries

Define CS, fit into CL

1. CUSTOMER SEGMENT(S) CS

The industrialists who use gases for their manufacturing.The detection of leakage prevents the loss of lives.

6. CUSTOMER LIMITATIONS EG. BUDGET, DEVICES CL

High budget in installing other products make them to move far from modern technologies.

5. AVAILABLE SOLUTIONS PLUSES & MINUSES AS

Buzzer to indicate the leakage.GSM module helps us to get notification when there is a gas leakage.Usage of sensors to sense gas Leakage.

Explore AS, differentiate

Focus on PR, tap into BE, understand RC

2. PROBLEMS / PAINS + ITS FREQUENCY PR

- Suffering from many losses due to gas leakage.
- Having no proper system for controlling or monitoring the leakage.
- Facing heavy budget problems in buying and installing a system for monitoring and controlling.

9. PROBLEM ROOT / CAUSE RC

- Sometimes sensor doesn't work properly which can cause the major problem.
- Man power could reduce electricity cost and monitor properly, it may cause high risk for their life. There is also a cause of some errors due to manpower.

7. BEHAVIOR + ITS INTENSITY BE

- If the gas leaked is heavily toxic, there is a chance of causing hereditary health issues too.
- To determine the gas characteristics and solve the issue, they will locate the leak and identify the warning.

Focus on PR, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS TO ACT TR

The heavy damages or higher health issues due to the toxic gases urges them to find out a solution as soon as they could possible.

4. EMOTIONS BEFORE / AFTER EM

Before: The heavy losses due to the leakages made them feel of guilt due to reduced reputation of their products.
After: Increased the level of confidence and feel secured

10. YOUR SOLUTION SL

Develop an efficient system & an application that can monitor and alert the workers. 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 BEHAVIOR CH

ONLINE

Promoting through social media..Monitor the status of the sensors .Notification incase of any gas leakage.

OFFLINE

Prevent physical damage to sensor.Through newspaper advertisements and complaint letters.

Extract online & offline CH of BE