Template for Problem Statement

Date : 17|10|23   Batch : P4-1(IT)

Need Statement: Water purifier for Home

Roll Number	Name of Student	Role played (Designer / Customer)
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Table 1: List of The sample Questionnaire to design the problem

Questions such as	This question helps the designer to
1. which type of water purifier needed ? (i) RO (ii) VF (iii) UV	
2. How much should one spend on whole water system ?	
3. Types of impurities present in supply of water ?	Identify client's objective
4. Do you need your water system to be integrated or individual?	
5. How much litre of water can it purify in one day?	

1. Unusual taste and smell of water 2. Low flow rate of rate 3. Cost of maintainance, Harmful effects on environment.	**Identify constraints**
1. Water purifier should'nt over purify the water. 2. Purifier should be energy and environmental efficient. 3. water purifier should have automatic refilling system other than manual.	**Establish functions**

Table 2 The information obtained through basic research and Survey

Observation and from Lit.Survey	Requirements
1. The purifier should be cost efficient.	The cost of the purifier should be in the range of (5000 – 15,000)
2. The purifier should have a long life period.	Having a longer life reduces the cost of maintaince drasttically
3. Users prefer having customizable features in purifier.	It should have function for hot and cold water.
4. It should have function for backup.	It should have backup for electricity cut for emergency.

1.1 Establish client's objectives

Capacity, Efficiency, Cost, Quantity, Types of filtration, Types of impurity present.

1.2 Identify constraints

→ unusual taste
→ unusual smell
→ flow rate

1.3 Establish functions

→ environmental friendly
→ Refilling system

Revised Problem Statement:

Developing a cost effective, energy efficient environmental friendly purifier for domestic and industrial usage.

The design of the water purifier should fulfil all the requirements of customers. to provide safe drinking water.

The water purifier should be budget friendly for the usage.

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