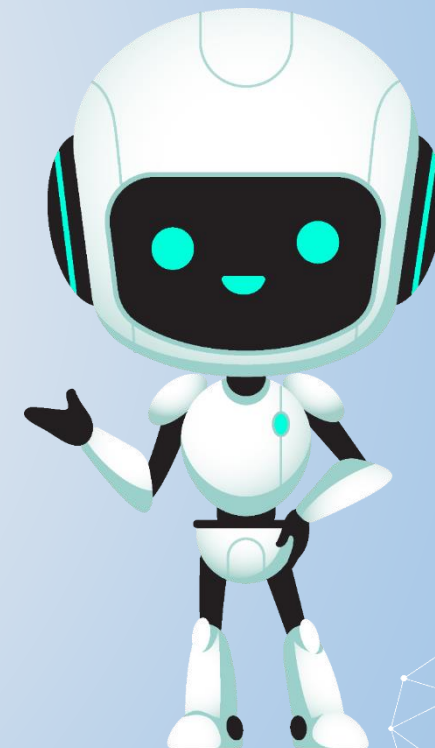
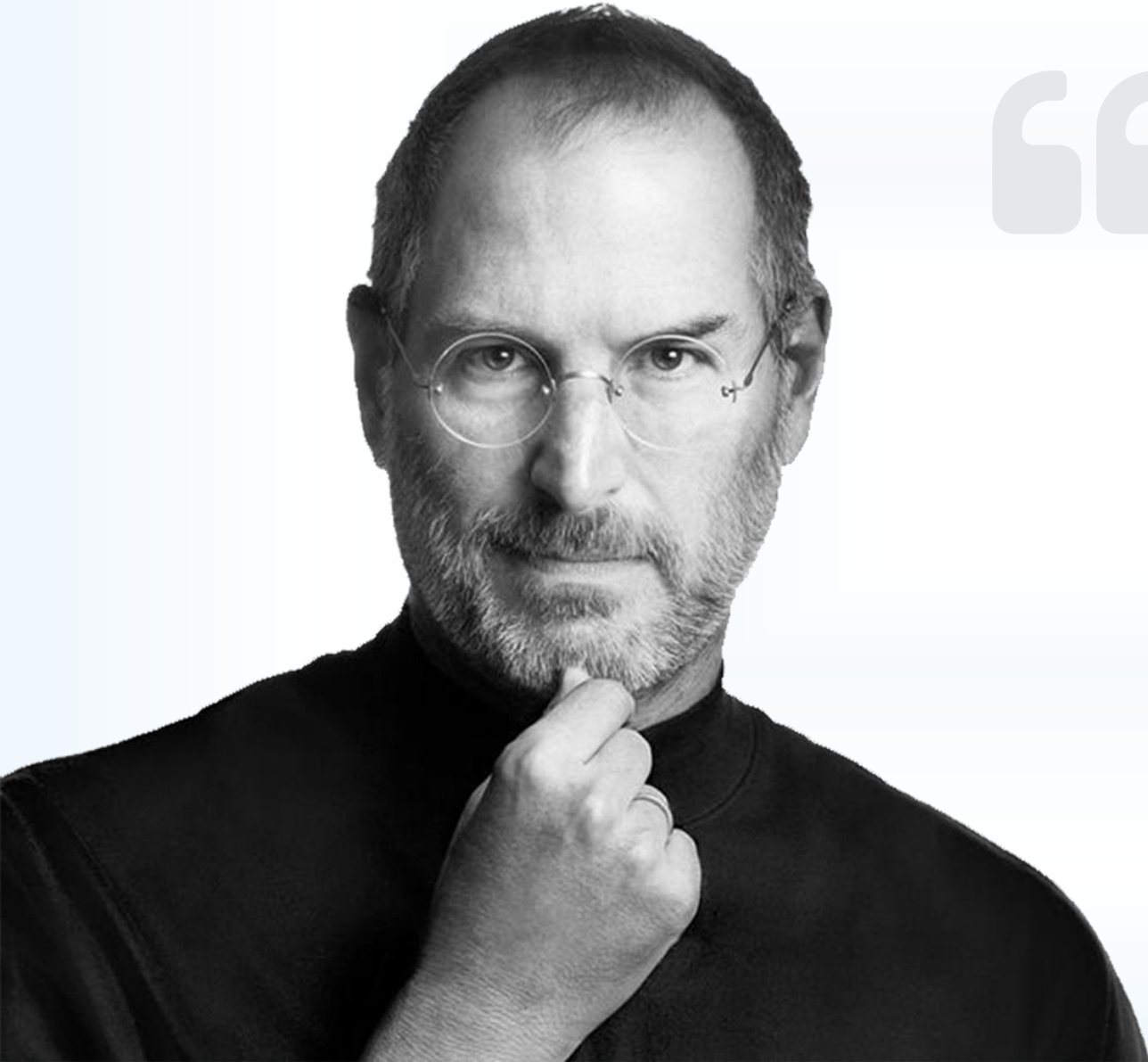




INTRODUCTION TO Design Thinking







“

Design is not just what it
looks like and feels like.
Design is how it works.

”

Observe and Analyse the Designs



What is Design thinking ?



Design thinking is a iterative process which seeks to understand users, challenge assumptions, redefine problems and create innovative solutions to prototype and test.

Design thinking has a human-centered core.

- It encourages the creator to focus on the people they're creating for, which leads to better products, services, and internal processes.
- The first question for the creator is always be what's the user perspective behind it.



Stages of design thinking



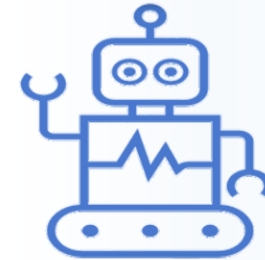
Empathize



Define



Ideate



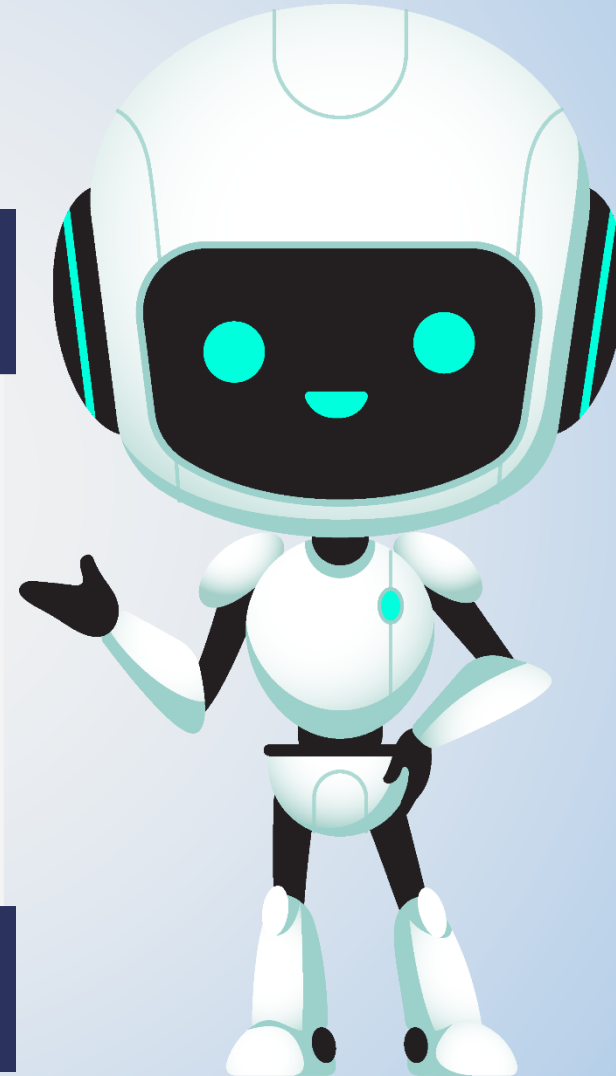
Prototype



Test



STAGES OF DESIGN THINKING



What is empathize?

To identify or understand what other see feel or experience, in order to relate to the problem that others might be facing.

You need to understand the problem before you solve it

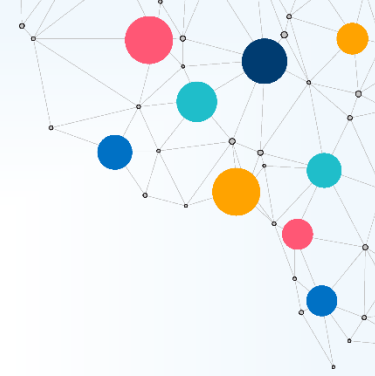
Observe

+

Listen

&

Engage



Why to Empathize?

- Observing what people do and how they interact with their environment gives you clues about what they think and feel.
- It also helps you understand what they need.

How Empathize?

It's important to remember that "you are not the User".

Observe :

1. See People and their behavior
2. Notice their actions

Engage :

1. Talk to them about their problems.
2. Always ask them “why”

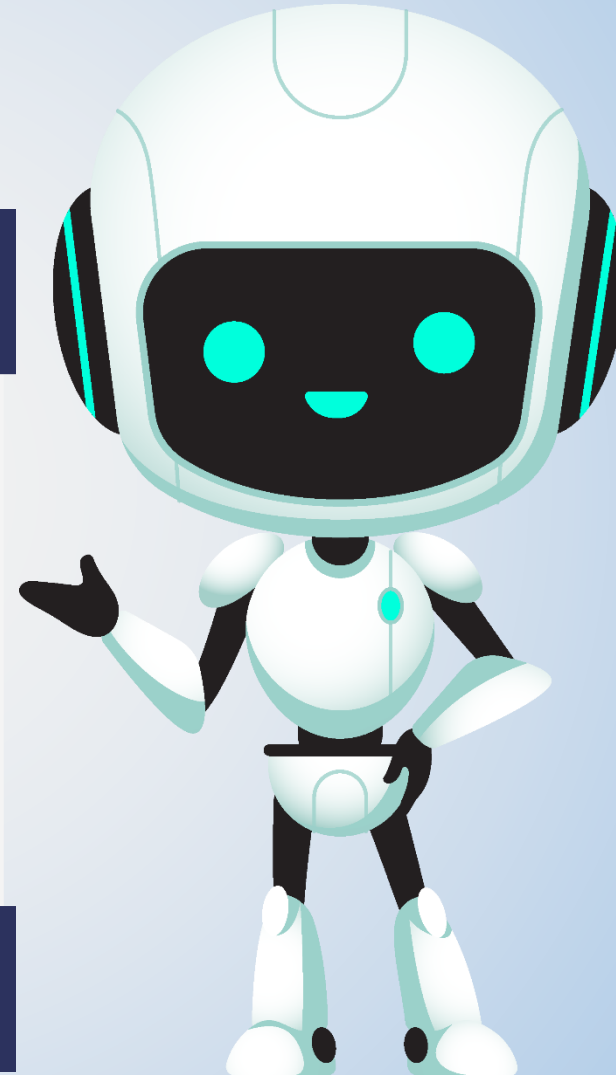
Listen :

1. Listen actively to the problems
2. Ask them to share as much as possible





Problem Scenario



Fill the Template

Select your Theme - Circle it. Write the problem you want to address in that theme.



Swachh Bharat



National Water



Health



Women Safety



Education



Disability



Transportation



Others

Write the different users who are affected by the problem. Circle your final User. (USER can be ANYONE)



USER 1

USER 3

USER 2

USER 4

How is the user affected by the problem?



Draw, name, age and profession of the USER.

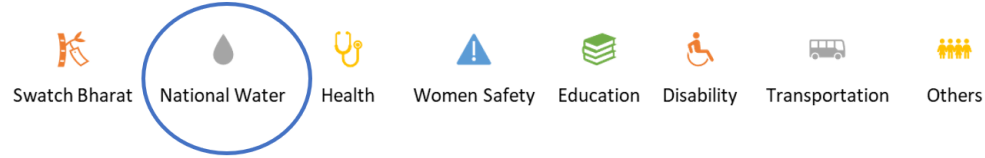


What are the actions of the user in the problematic scenario?

EMPATHIZE

Solution

Select your Theme - Circle it. Write the problem you want to address in that theme.



NATIONAL WATER

Write the different users who are affected by the problem. Circle your final User. (USER can be ANYONE)



How is the user affected by the problem ?

Spinal injuries

EMPATHIZE



Draw, name, age and profession of the USER.



Mr. Zane
50 years old
Farmer



What are the actions of the user in the problematic scenario?

1. He visits the hospital frequently.
2. He is not able to do farming because of the pain.
3. He asks others to help him carry water.
4. He is upset with his living scenario.



What is Define?

Analysing the observations from the empathize stage to identify the core problem.



How to Define?

- Identify your User
 - Develop an understanding of the type of person you are designing for.
- Reveal Needs
 - Create a set of needs you want to address.
- Articulate Insights
 - Work to create insights based on research.



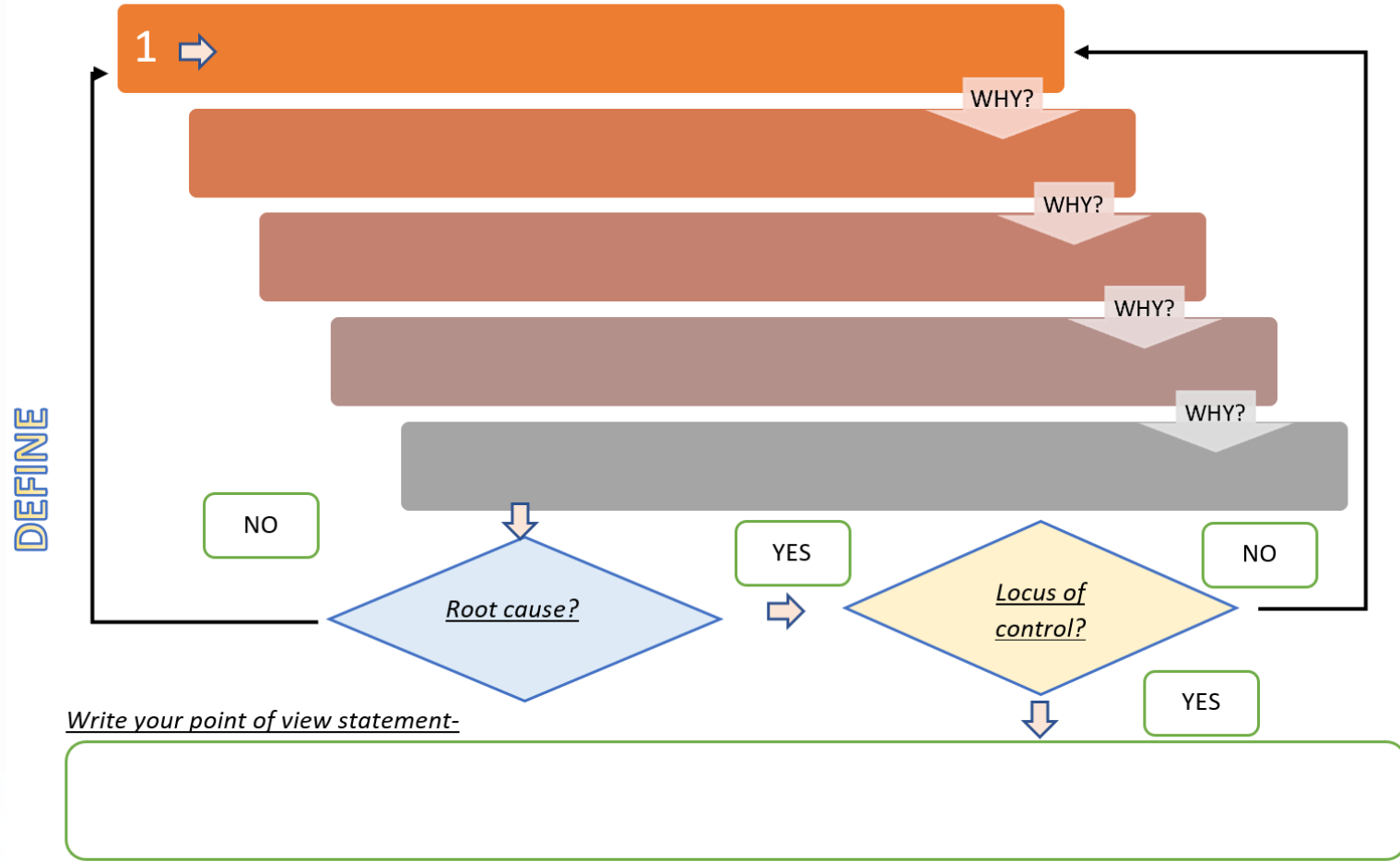
Writing a Need statement

The USER needs a way to do something that addresses their need so that they benefit them directly.

Observations	Need Statements
I am seven years old and I hate doing homework because it takes me forever to finish. - Peter	Peter needs a better way to do his homework so that he doesn't take a lot of time.
I am a college student and I hate folding laundry because I can't seem to fold it the right way. - Ram	Ram needs a better way to fold laundry so that he can do it perfectly every time.
I am the mother of five year old twins who hate vegetables or all kinds. I am worried about their nutritional needs. - Sheema	Sheema needs a better way of getting her children to eat the vegetables so that the kids get their nutritional needs fulfilled.

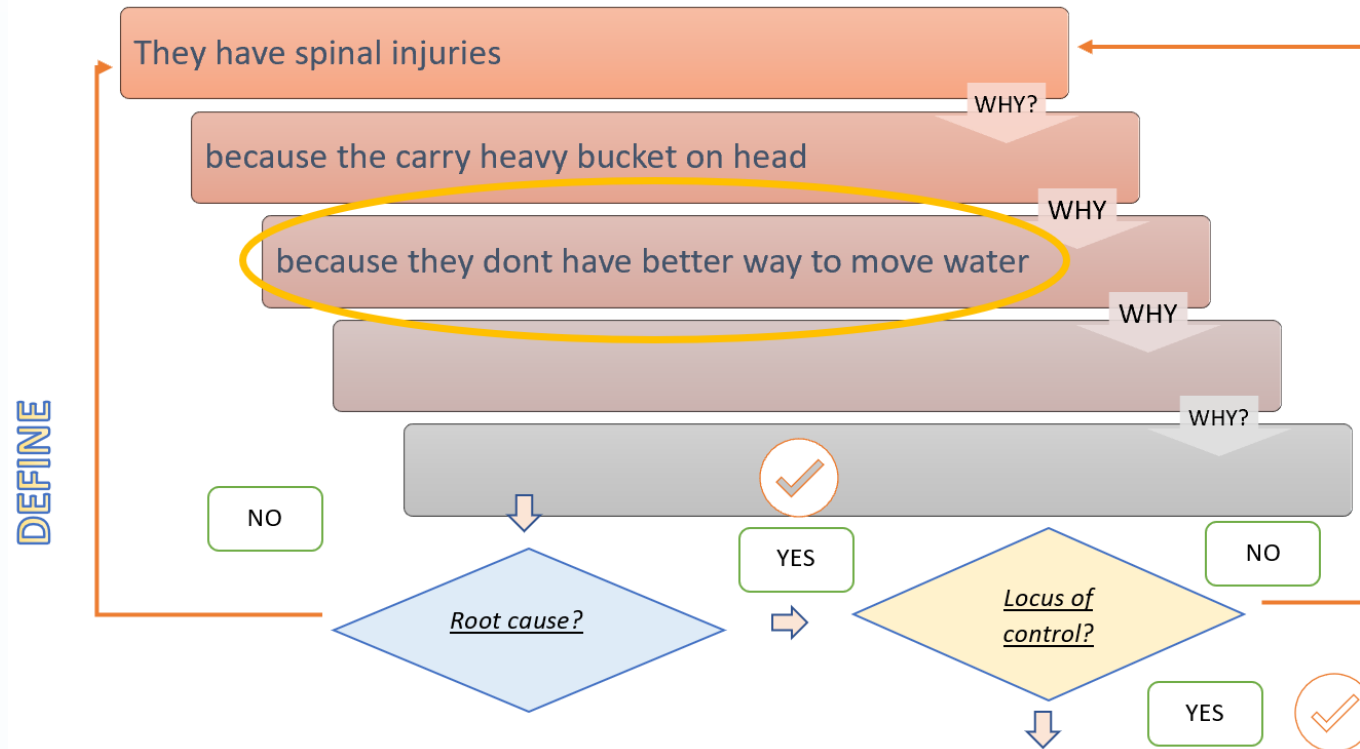
Define and Need statement

Write the Cause of the problem and arrive at your ROOT CAUSE.



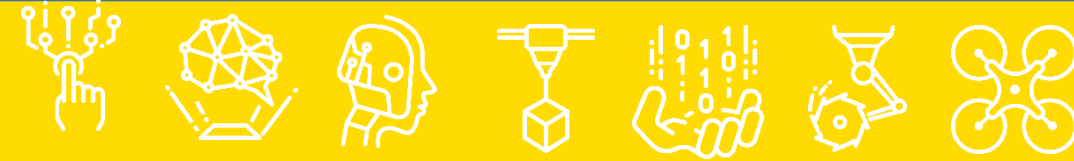
Solution

Write the Cause of the problem and arrive at your ROOT CAUSE if you are not able to do so directly?



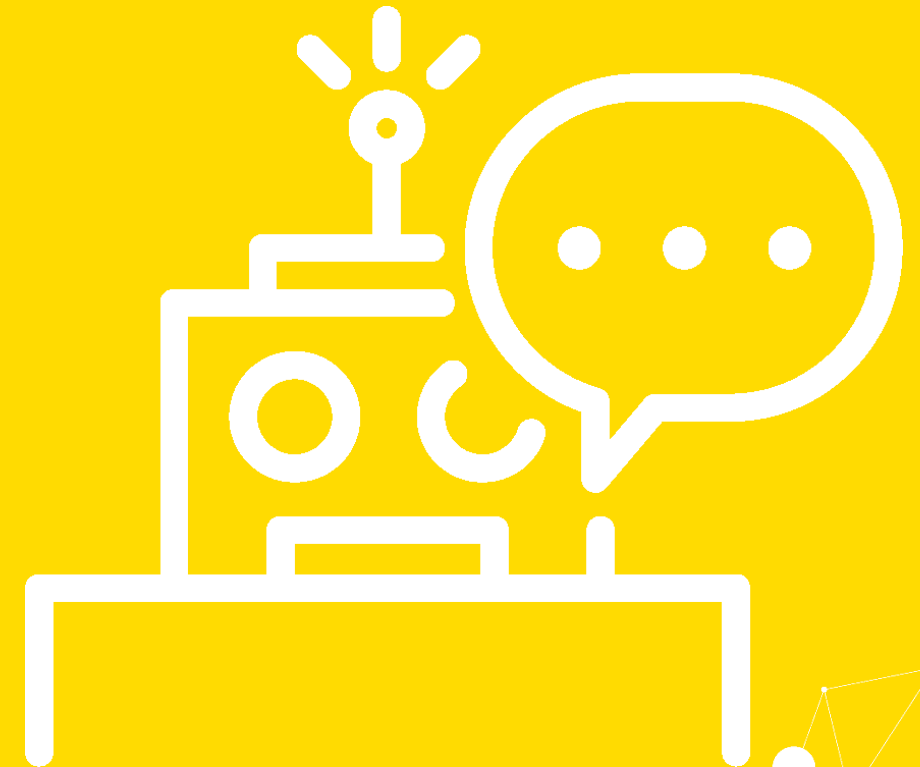
Write your point of view statement-

Mr. Rajeev suffers from backache and spinal injuries because he is not able to find a better way to move water from the water body to home.



Ideation

Ideation is the creative process of generating, developing, and communicating new ideas, where an idea is understood as a basic element of thought that can be either visual, concrete, or abstract.[1] Ideation comprises all stages of a thought cycle, from innovation, to development, to actualization.



What is Ideate



Ideation is the third stage of design thinking , here you concentrate on idea generation.



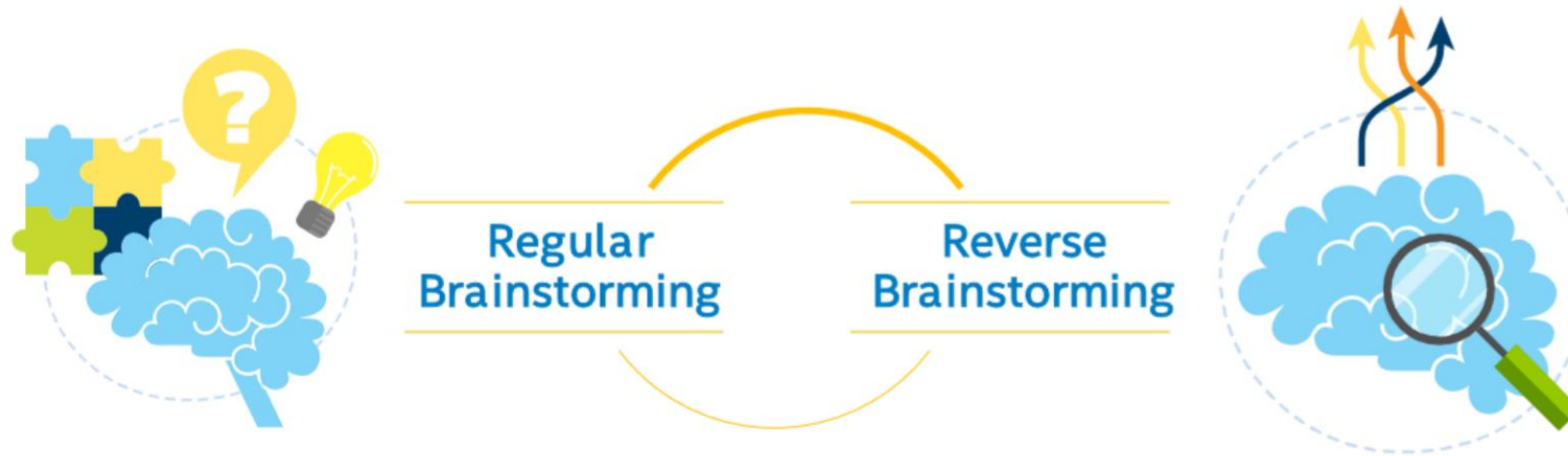
The main objective is to use creativity and innovation in order to develop solutions.






Why Ideate?

- ❑ To Step Beyond obvious solutions.
- ❑ To connect the collective perspective
- ❑ To uncover unexpected areas of exploration
- ❑ To create easy and flexible innovative options



How to Ideate?



	Ideas Generated	UNIQUENESS 	EASE OF USE 	DURABILITY 	EASE OF DESIGN 	ECONOMICAL 

Solution

IDEATE

Ideas Generated	 UNIQUENESS	 EASE OF USE	 DURABILITY	 EASE OF DESIGN	 ECONOMICAL
1. Create a Canal					
2. Move the people next to river					
3. Rain water harvesting					
4. Create a truck to carry					
5. Cart design					

What is prototype

Prototyping is a early sample or draft version of a solution of a product



How to Prototype?



BUILD WITH THE USER IN MIND



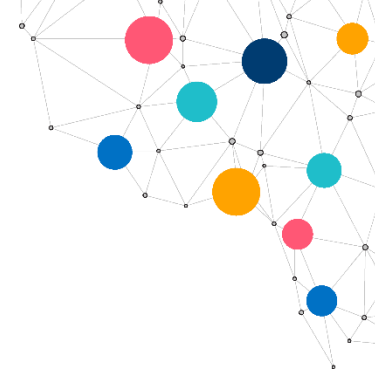
IDENTIFY WHAT'S BEING TESTED



START BUILDING



PROTOTYPING IS EXPERIMENTING-
TO CONFIRM YOUR ASSUMPTIONS
AND HYPOTHESIS.





Why prototype?

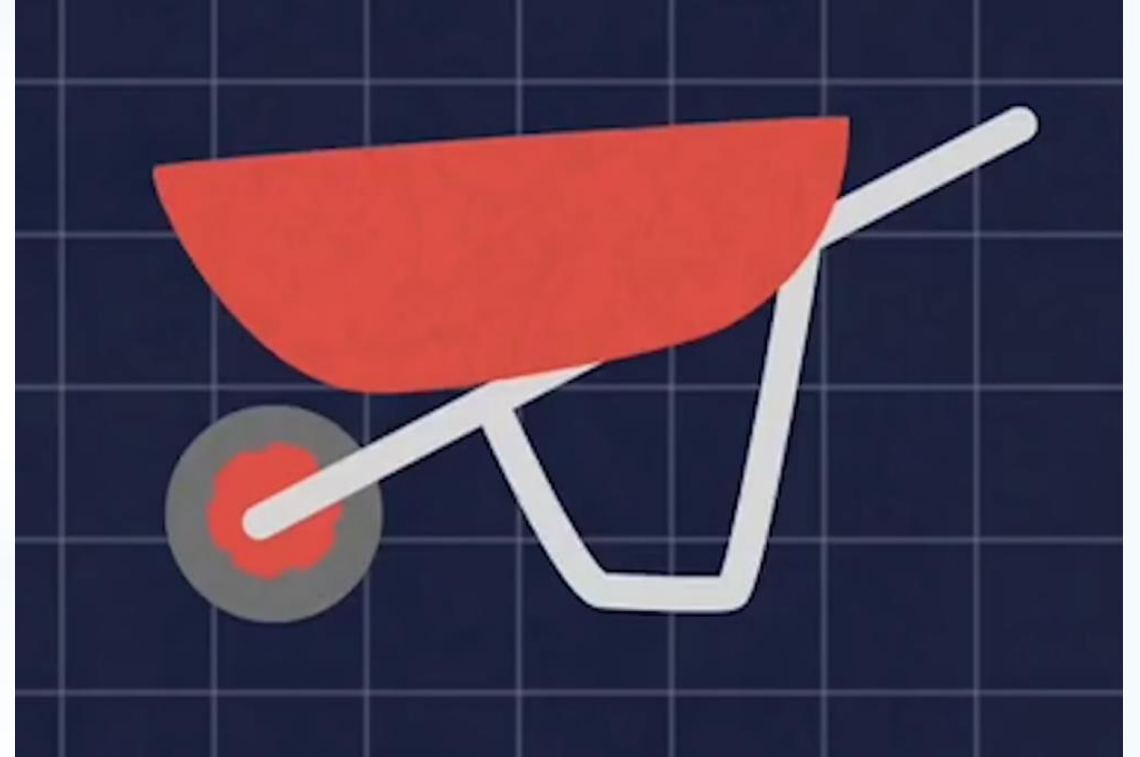
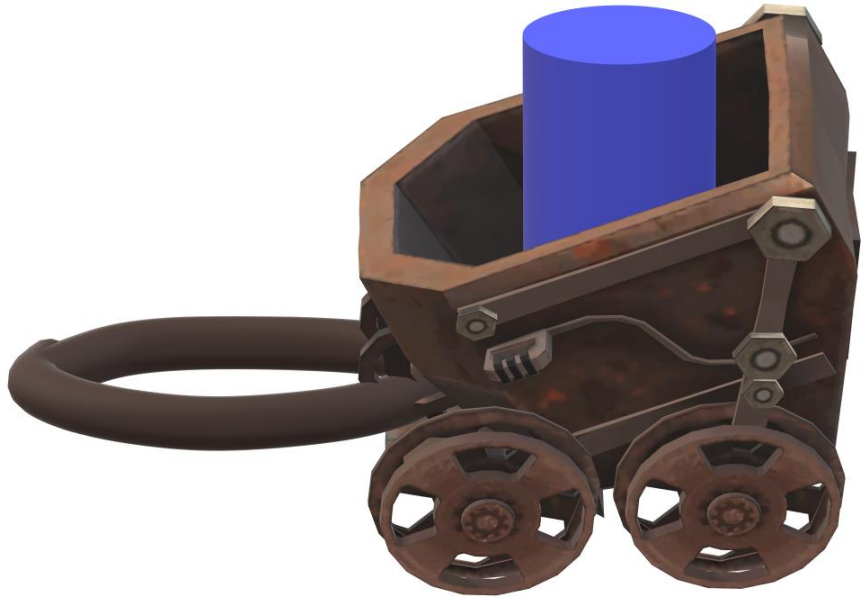
- To test
- To fail quickly and cheaply
- To give you a clarity of your design



Draw your prototype

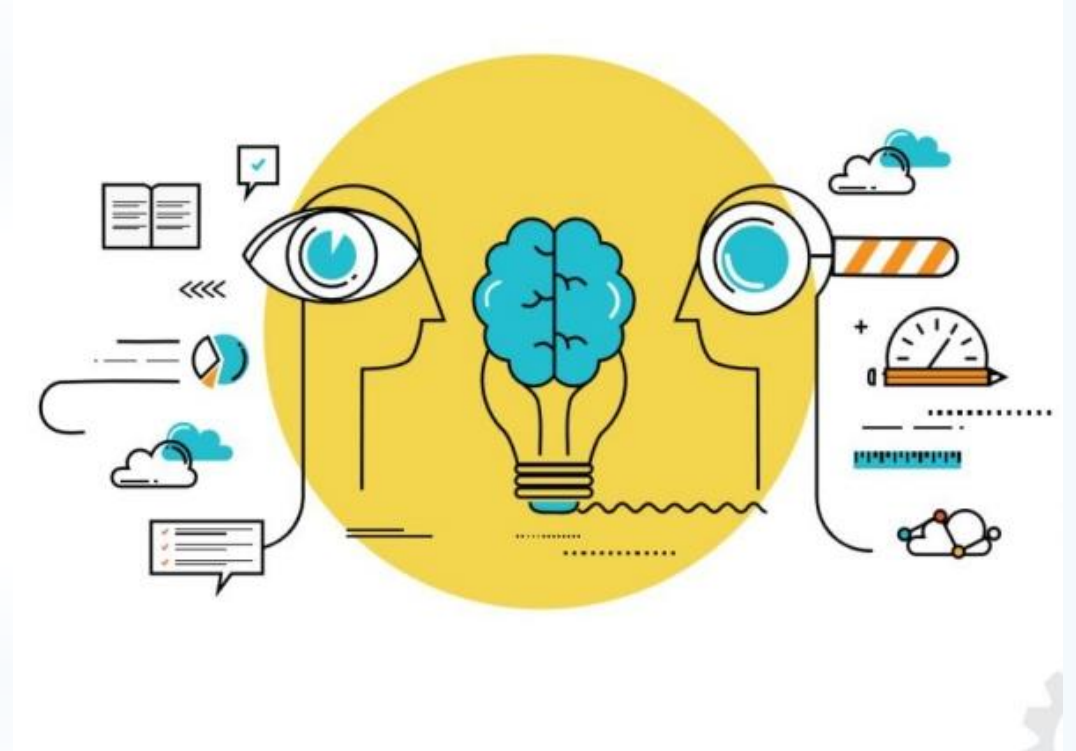


Prototype designs



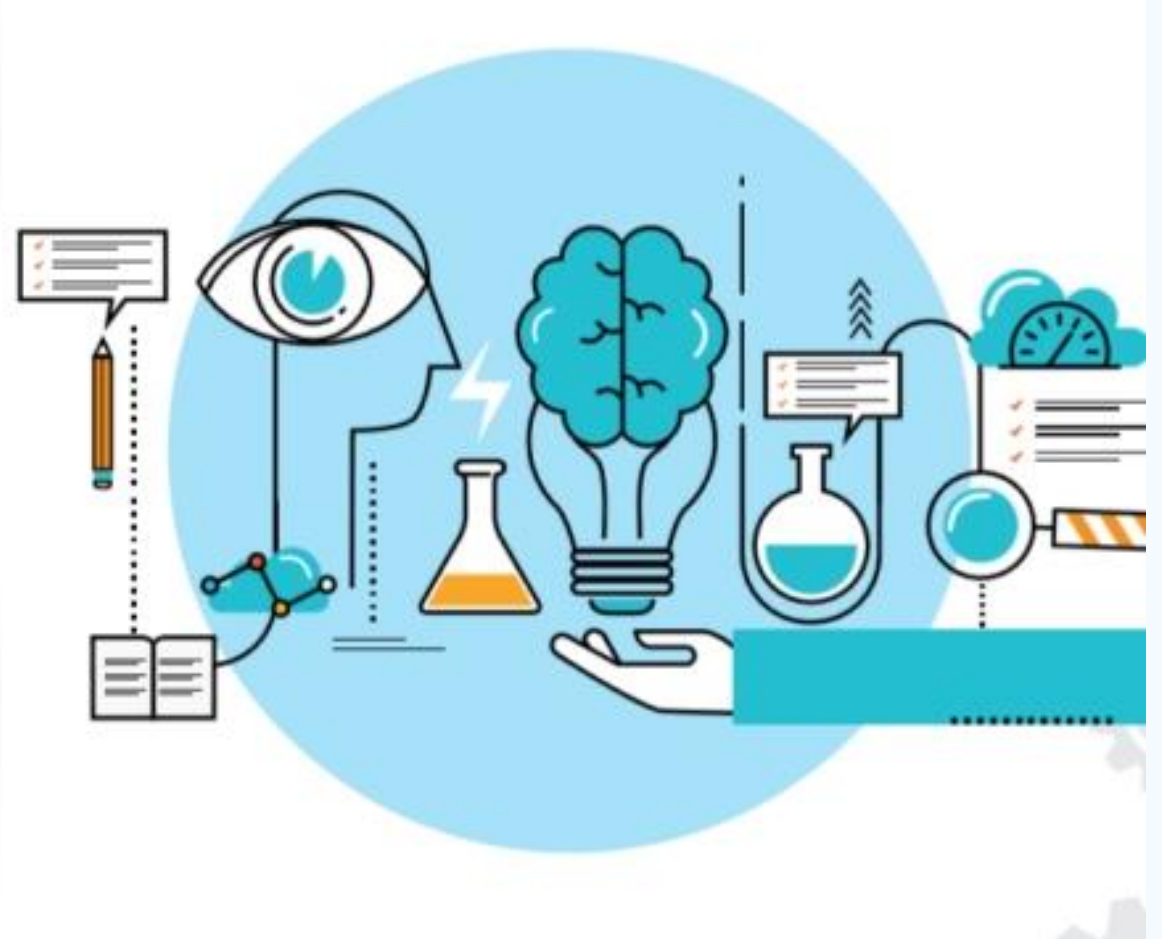
What is Test

Feedback from the audience of user regarding your prototype.



Why test ?

- To refine your prototype.
- To refine your POV.
- To get insights on the priorities.



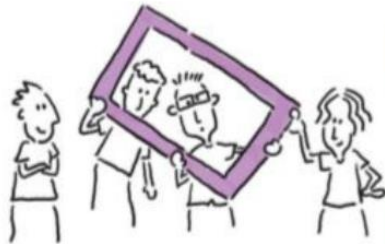
HOW TO TEST?



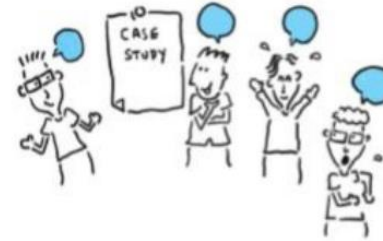
Ask users to
compare



Watch how
they use



Show
don't tell



Create
Experiences

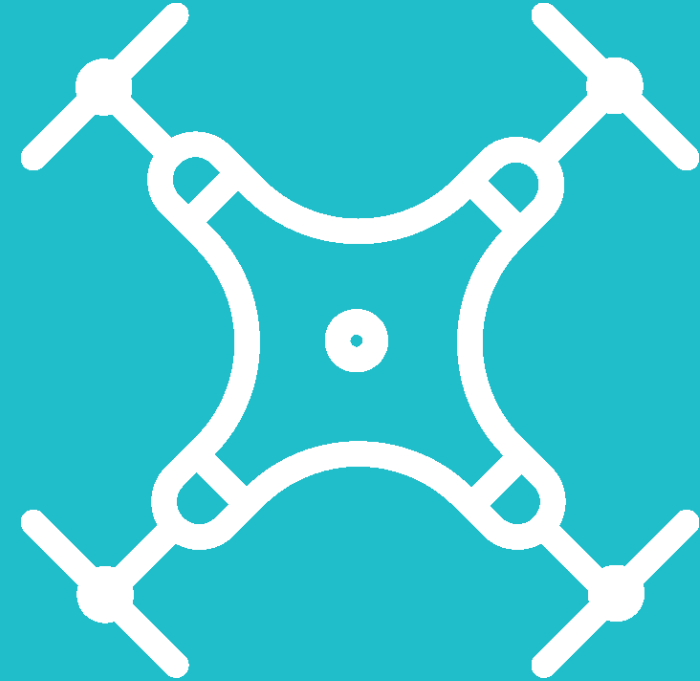
Test – user inputs

Activity Scenario Continued-

1. It will cost additional money to build a cart, the villagers might not be able to afford
2. The weight of the drum is now increased as weight of cart will also get added.



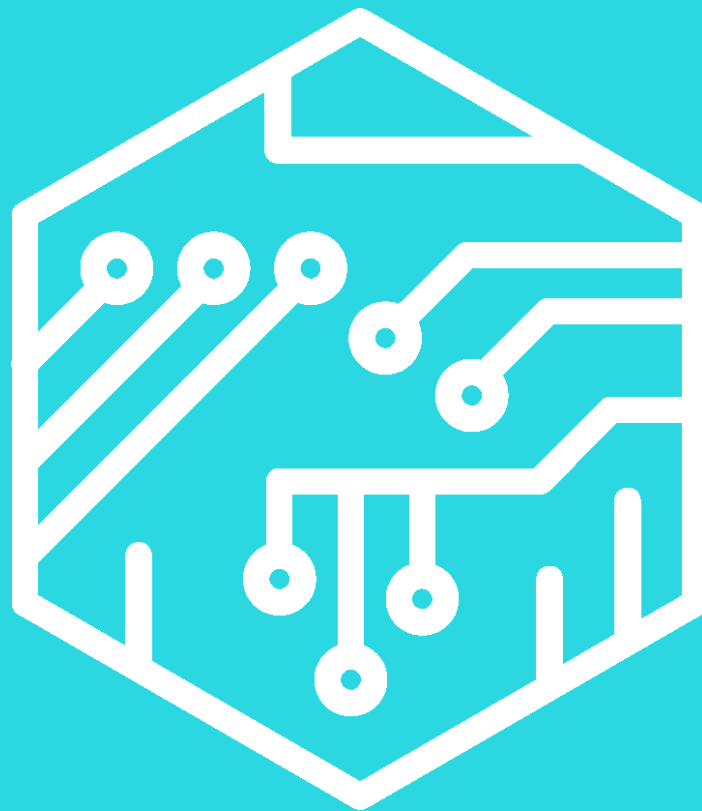
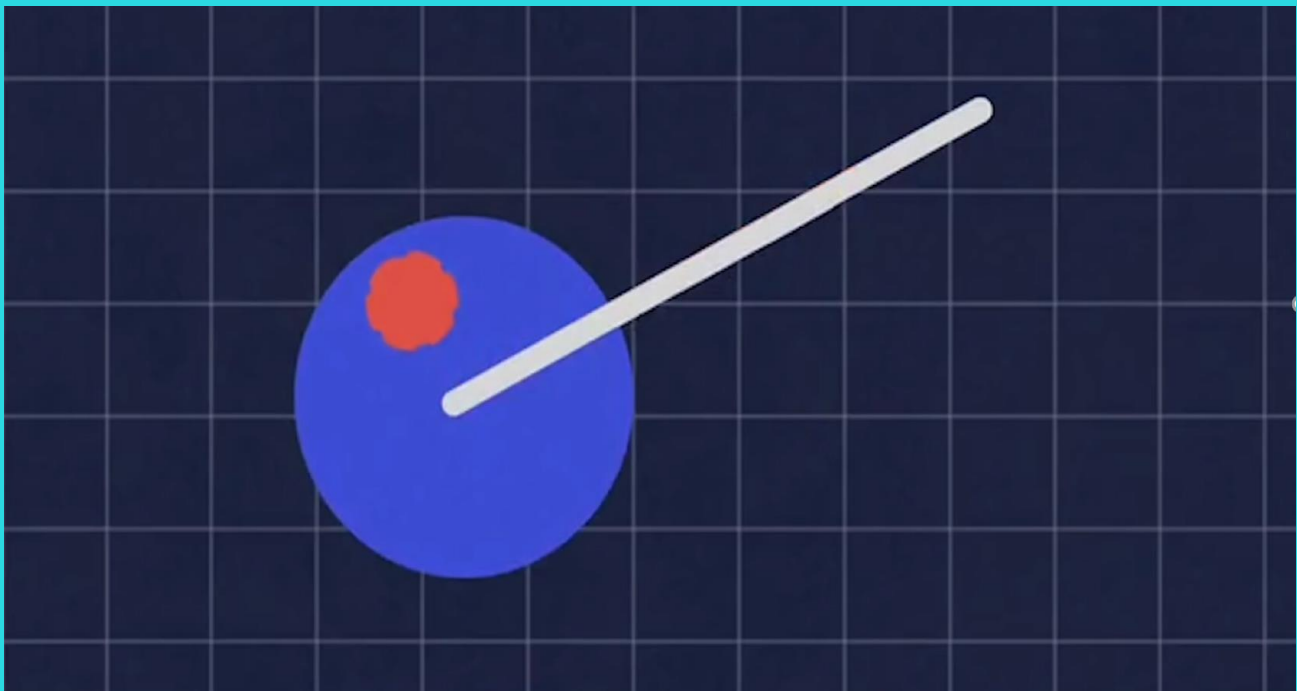
Draw your final prototype





What is your Solution?







Water – Part 2

