

GROUP NO-01

# HYDRO HELPERS

RAIN WATER HARVESTING SYSTEM

# OUR TEAM

1

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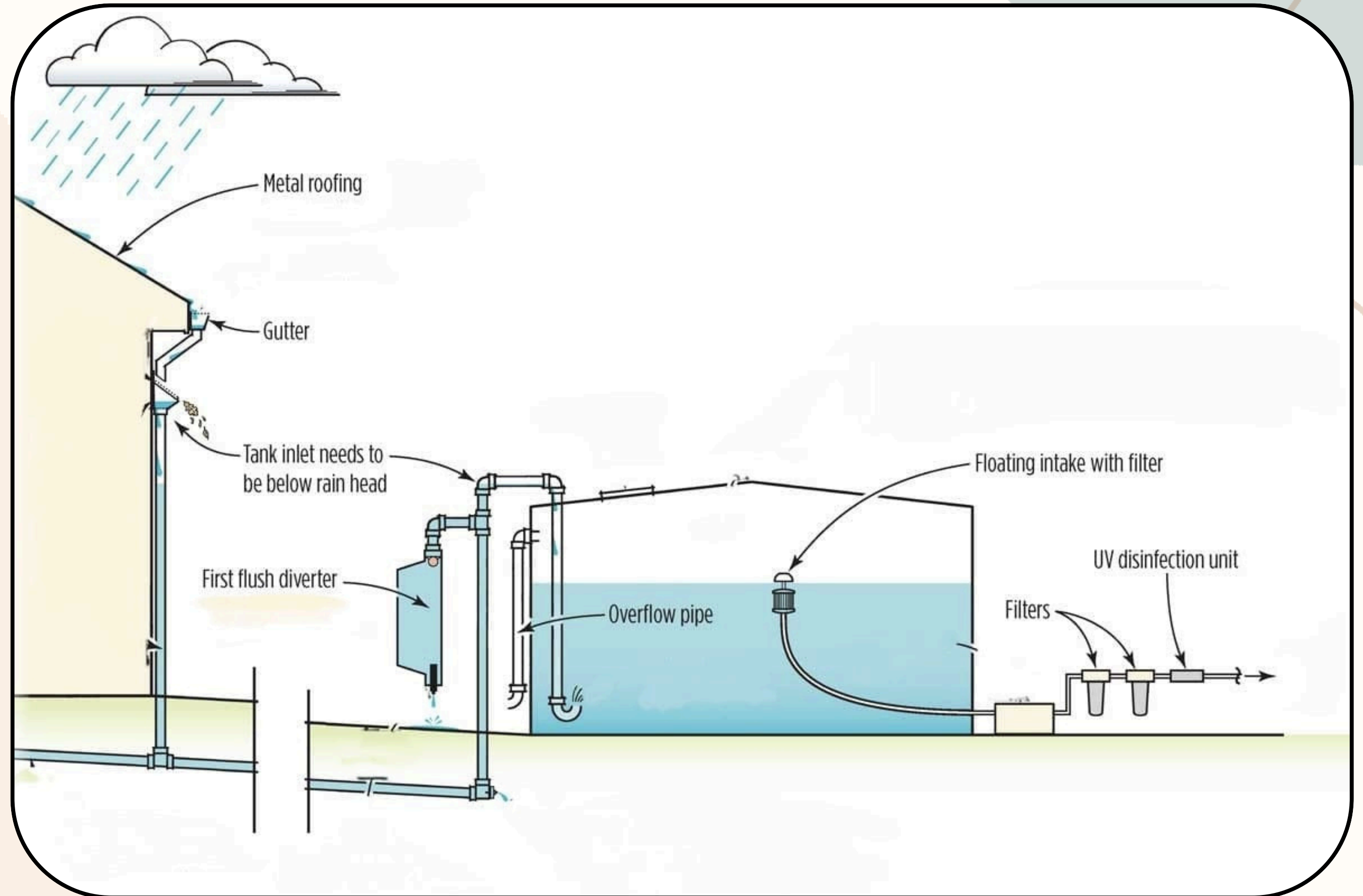
# Problem Overview

In various regions of maharashtra there is enough rainfall but still people are facing water problems like dirty water, water shortage, dried wells and borewells. the government is not able to reach at ground level for every small village to provide them enough source of water with good quality and quantity. also same kind of problem is faced by people who live in populated cities. because of crowded region the every family cannot get enough water supply from municipality.



# BRAINSTORMING ACTIVITY

— Includes creativeness  
&  
future vision





# PERSONA CONSTRUCTION

In this persona the targeted enduser  
is the homeowner in populated city  
like mumbai

Persona		Group no:1	G=1
<b>Background</b>	<ul style="list-style-type: none"><li>• The end user is a homeowner placed in Mumbai</li><li>• He lives with his small family, or 2 children and his wife.</li><li>• He is active social and environmental volunteer</li><li>• well educated and knows all the do's and don't's regarding to the environmental.</li></ul> <small>Family background, education, childhood</small>		
<b>Motivation</b>	<ul style="list-style-type: none"><li>• To decrease water pollution and increase the conservation of ground water.</li><li>• To increase his property value by providing eco-friendly features to protect environment.</li><li>• To provide healthy &amp; sediment free water to his family.</li></ul>		
<b>Challenges faced</b>	<ul style="list-style-type: none"><li>• Limited awareness in setting up RWH System</li><li>• High installation and maintenance cost.</li><li>• Very limited space to install in urban area houses.</li><li>• Limitation to expand or scale up the system for improvement.</li></ul> <small>Challenges faced by the person in dealing with his stakeholders</small>		
<b>Doubts / Fears</b>	<ul style="list-style-type: none"><li>• Mosquito breeding in stored water and associated health risk.</li><li>• Fear of social stigma and negative response from neighbors or society.</li><li>• Risk of electricity flow through the pipes due to improper installation &amp; maintenance.</li></ul>		
<b>Aspirations</b>	<ul style="list-style-type: none"><li>• Decrease dependency on municipal water supply and store enough water</li><li>• Save money on water cost and that money can be collected for other important work.</li><li>• Inspire other to adopt sustainable practices and install Rain water harvesting system.</li></ul>		
<small>Construct a story while explaining the persona to your peers and document the insights....</small> The end user is a familyman living in Mumbai and belongs to a well educated family. He is an active environmentalist and social worker. He is well aware about scarcity of water in many rural areas near his locality. Facing the problem of finance making a working rain water harvesting system. Is motivated to decrease water pollution and increase ground water.			



# PERSONA CONSTRUCTION

In this persona the targeted enduser  
is the farmer from the middle class  
family

Persona		Group no : 1	G1 = 1
<b>Background</b>	<ul style="list-style-type: none"><li>The enduser is a farmer from middle class family</li><li>Not well educated but having sharp thinking level</li><li>Living in a joint family in small town</li><li>Having experiences &amp; technical skill for installation</li></ul> <p>Family background, education, childhood</p>		
<b>Challenges faced</b>	<ul style="list-style-type: none"><li>Balancing family &amp; farm at a time</li><li>Not having family coordination</li><li>Lack of water &amp; technical solution</li><li>Using daily base electrical method is very cost effective</li><li>Collecting water from the flow &amp; Roof rainwater</li></ul> <p>Challenges faced by the person in dealing with his stakeholders</p>		
<b>Motivation</b>	<ul style="list-style-type: none"><li>Accepting the challenges &amp; working on it</li><li>Balancing Personal and professional life at a time</li><li>Being supportive &amp; careful and attentive towards the family</li><li>Trying to fulfill the needs of each &amp; every of them</li></ul> <p>What motivates the individual</p>		
<b>Doubts / Fears</b>	<ul style="list-style-type: none"><li>Will be able to regular maintenance regularly</li><li>Limited &amp; no rainfall can limit the supply of rain water</li><li>If not installed correctly, it may attract mosquitoes &amp; other water borne disease</li><li>What if it is family members not supportive</li></ul> <p>What this individual fears / doubts faced by the individual</p>		
<b>Aspirations</b>	<ul style="list-style-type: none"><li>Achieving success in planned goals</li><li>Getting appreciation from members</li><li>Helping other helpless public whoever is facing same problems</li><li>Being Healthy, mentally &amp; financially stable</li></ul> <p>What this individual aspires to be / vision</p>		
<p>Construct a story while explaining the persona to your peers and document the insights...</p> <p>Mohit belongs to joint &amp; middle class family from small town as we know this days many places there is shortage of water &amp; he can't afford electrical support as he is having many other spending expenditures so he is undertaking the rain water harvesting system as solution of water for farm &amp; other purpose, he don't want to see his childrens suffer as like him so that he can provide better future to his child's thr education</p>			



# AFFINITY MAPPING

A visual technique for organizing  
information into groups to identify  
patterns

STORAGE

TANKS  
RESERVOIRS  
BARREL  
CISTERN  
CONTAINERS

TREATMENT

FILTRATION  
SEDIMENTATION  
DISINFECTION  
PURIFICATION  
SCREENING

BENIFITS

CONSERVATIONS  
EFFICENCY  
COST-EFFECTIVE  
SUSTAINABLE  
ENVIROMENT  
FRIENDLY

USAGE

IRRIGATION  
DRINKING  
COOKING  
WASHING  
FLUSHING



# AFFINITY MAPPING

## REQUIRMENTS

PIPES  
PUMPS  
VALVES  
FITTINGS  
HOME

## COMPONANTS

OVERFLOW VALVE  
INLET SCREEN  
OUTLET PIPE  
FLOAT VALVE  
FIRST FLUSH  
DIVERTER

## DESIGN

CAPACITY  
SIZE  
MATERIAL  
SHAPE  
LOCATION

## MAINTENANCE

CLEANING  
INSPECTION  
REPAIR  
REPLACEMENT  
UP KEEP

# AFFINITY MAPPING

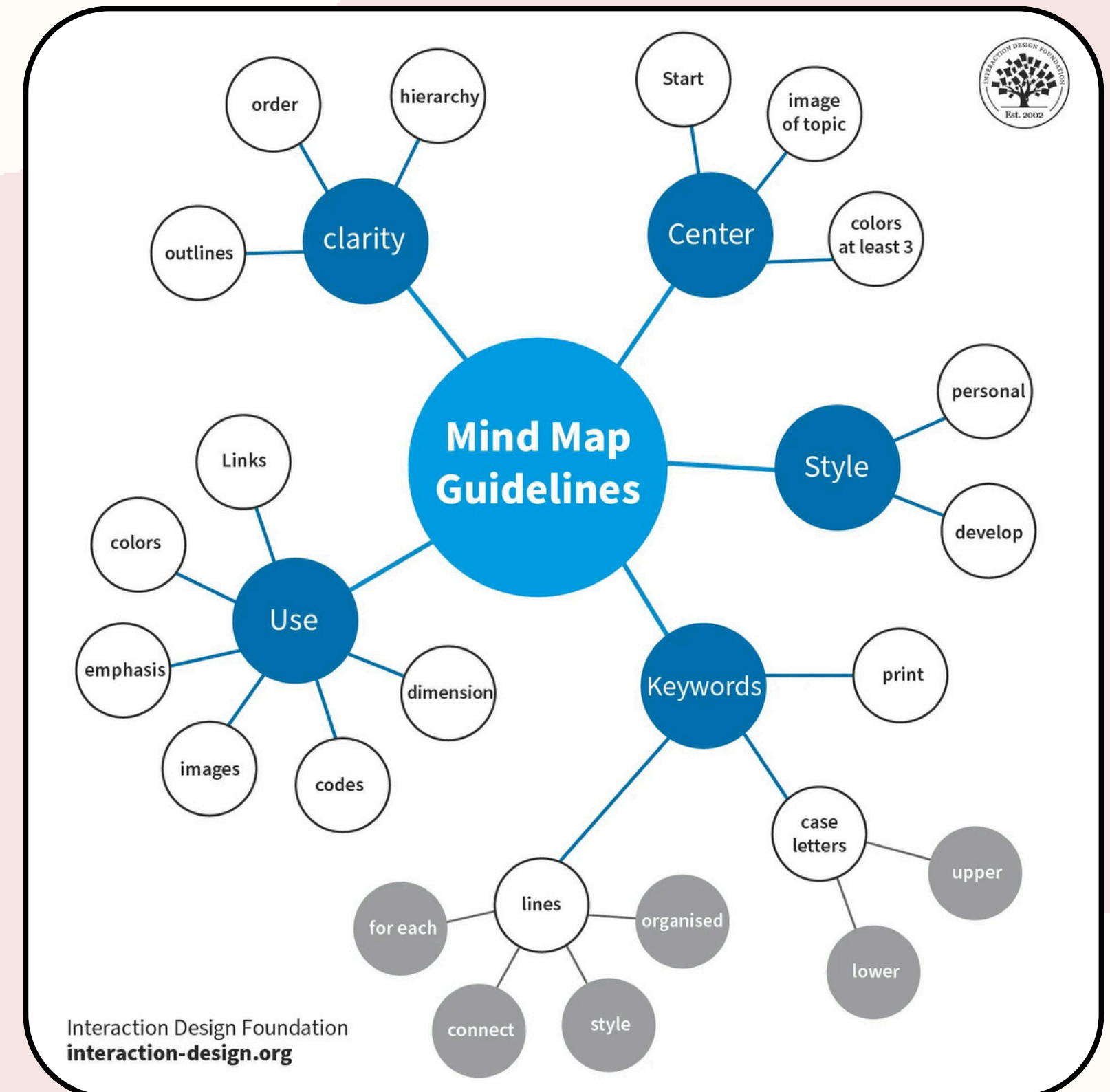
**EDUCATION AND AWARENESS**

**WORKSHOPS  
TRAININGS  
EDUCATION PROGRAM  
PUBLIC AWARENESS  
CAMPAIGNS**



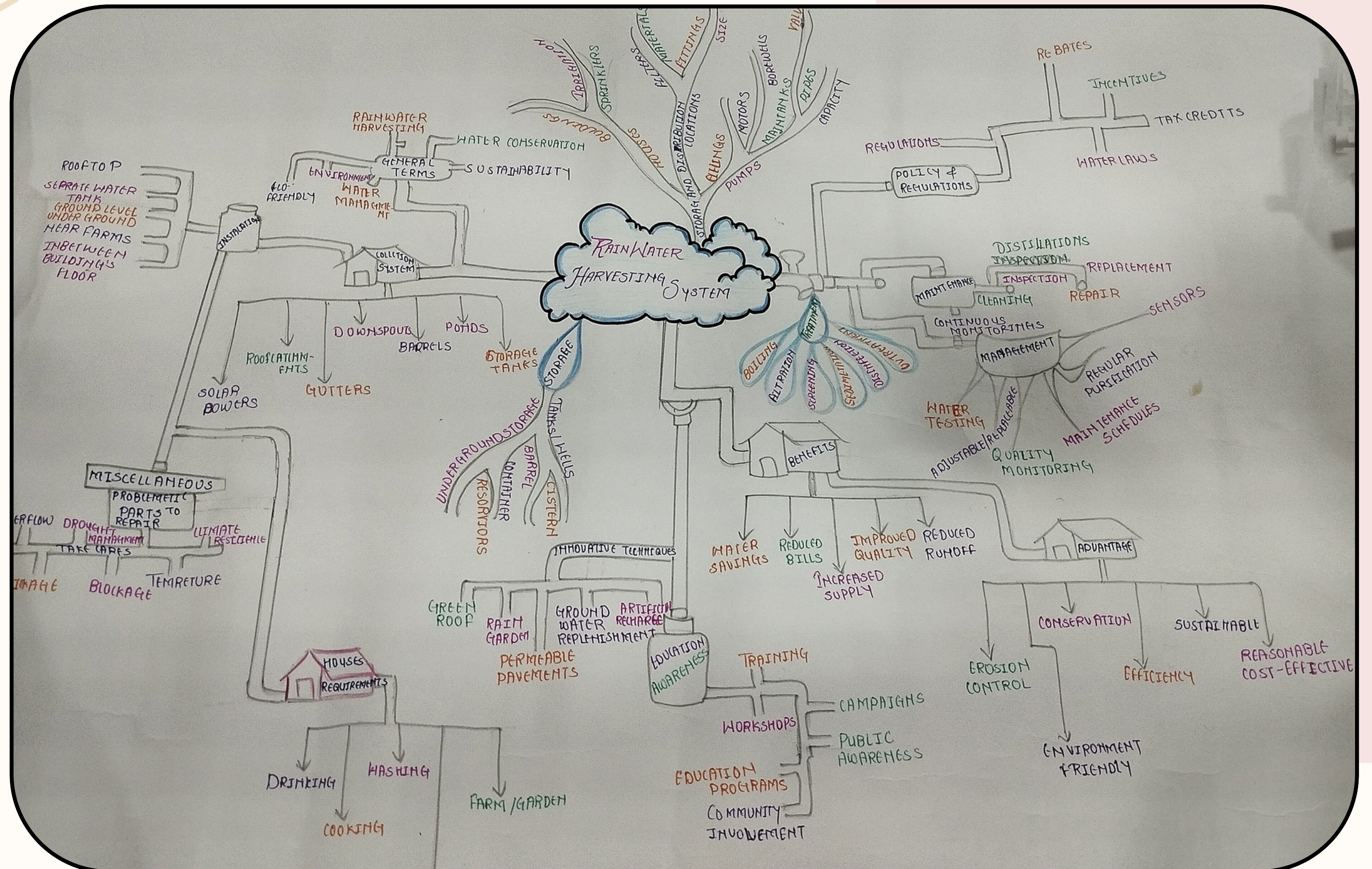
# MIND MAPPING

A mind map is a diagram used to visually organize information into a hierarchy, showing relationships among pieces of the whole.





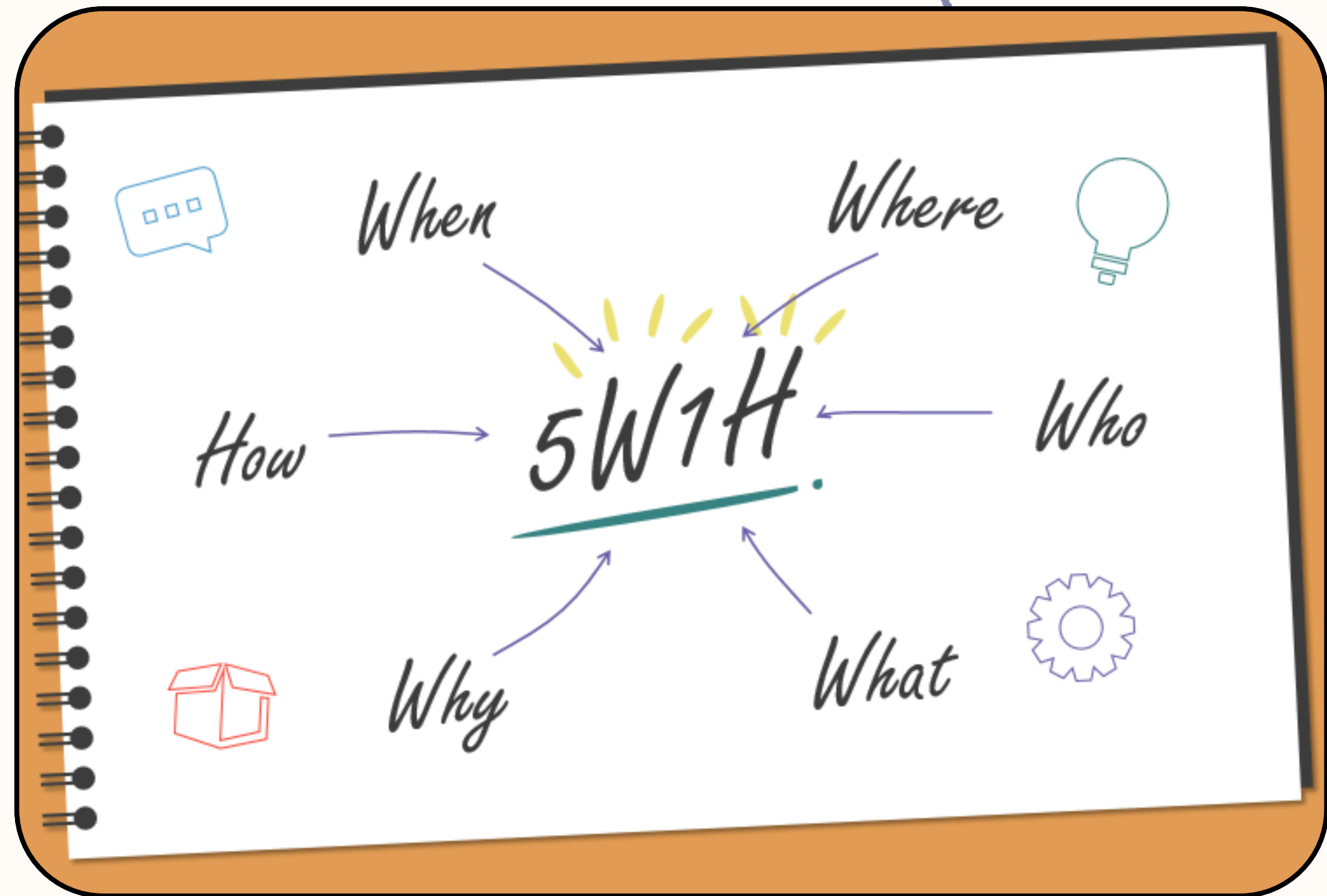
# MIND MAP





# 5W & 1H

The 5W1H technique is a questioning method that helps you understand a situation by asking six basic questions: what, who, when, where, why, and how.



# 5W & 1H

5W & 1H		
Group no-01		
Topic-Rain water harvesting system		
Aspects	Question	Details
Who	Who are the endusers?	people who lives in populated citys(Apartments)
		Farmers
		beneficiaries-all peoples who face water probem
		supporters-Government
What	What is the problem?	Facing drought and water shortage
		too much wastage of rain water
		No one to give right guidance
	what is the solution?	Rain water harvesting system
	what are the key features?	one time investment
		eco-friendly
		free source of water
		money saver
Where	Where will the system being used?	homes
		schools
		offices
		apartments
	where will the system being test?	All kind of buildings
		In buildings which will have no objections
		When is this system needed?
		In rainy season
when	When should the project be completed?	In 3 weeks
		Why is this project important?
		Because it can reduce the wastage of rain water
		It can save money
why	Why enduser will adopt this system?	It's a eco friendly investment
		It's good source of free water
		It's the solution to reduce water bills
		How thus the system works ?
How	How to upgrade the system	It collects water from rain and stored in tanks with purification process
		By regular maintanance
		By gathering more information about system





Thank you!