

# Chapter 1-6

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ELABORATION - REQUIREMENT GATHERING TECHNIQUE

# Review

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There are 7 steps in the Requirement Process;  
**Inception, Elicitation, Elaboration, Negotiation,  
Specification, Validation, Requirement  
Management.**

The output of the Requirement Process is the  
“**Requirement Document**,” which is the contract  
of the project

**INCEPTION**


**I have an Idea!**

**I want to built a house!**

# ELICITATION

Ok, We will do this.

Let find more details for checking whether  
it is make sense to Do this project!

A large, multi-pointed orange starburst graphic with a black outline, centered on the slide. It contains the text 'Assessing the feasibility of the project GO / NO-GO' in white.

Assessing the feasibility of  
the project  
GO / NO-GO

## Note that


The different objective form Inception Phase may give us find more information / stakeholders in the Elicitation Phase in the different direction!!!

❖ I want to built a house for rent

❖ I want to built a house

# Elaboration

We will do this project, let's **find everything** related to our project



The output of Elaboration  
step is the **potential  
requirements**

# Trawling... How to Proceed?

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1. From the context diagram, understand the work in context.
2. From the context of the work, find the trigger of the work and the response of the system.
3. From the trigger (i.e. incoming data flow) and the response (i.e. functionality within the work), establish business use cases.

**→ Understand where our “work” fits in!**

# Getting to the Essence of the Work

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Interpreting stakeholders' description of their **work** and uncovering its **essence** (e.g. why the work exists, how the goal is accomplished)

Separate the essence of the problem from the proposed solution (**Do not prejudge implementation!**)



# Techniques Fostering Innovation

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**Business Use Case Workshop:** a human activity where interested stakeholders describe the work using business use case

Requirements analyst records the activities and use them to derive the **requirements** for the product.

Stakeholders and requirements analyst construct **scenarios** together to acquire the knowledge of the **business use case**.

# Solving the Right Problem

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Start by thinking about the work and having a sufficiently large work scope

**Do not begin a project by thinking about the product!**

# Innovative Products

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Don't just rely on your stakeholders knowledge or understanding.

Study the user's work!

Understand the essence and ensure that the stakeholders similarly understand it.

Rethink the business use cases.

Invent a better way to do the work.

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However, let  
your customer  
choose

# Brainstorming

## Sticky Note

- <https://youtu.be/80c-LRRJ0W8>

Class Work: Find the scope/stakeholder by using Sticky Note (20 minutes)

## Mind Map

- <https://www.youtube.com/watch?v=4wZ5wV5dPZc>
- Class Work: Find the scope/stakeholder by using Mind Map (20 minutes)

# Apprenticing

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Users tend to describe their work in abstract terms using generalized cases.

Learning the job by **making observations, asking questions,** and **doing some of the work** under supervision

Analysts see all the cases and the actions the user takes for each.

Can be combined with current system modeling

Try out requirements and design ideas... ask the user if an idea is feasible and if it would improve the work.

# Observing Structures and Patterns

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Structure is “a framework for the user to do his task for the normal cases”.

Determining an abstract **structure** or a **pattern** to the work

- Observe structures

- Look for patterns (matching, almost matching, different)

- Find similarities (i.e. common requirements)

- Build abstract models of the work structure (i.e. class of work)

# Creativity Workshops

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A way of inventing new and undreamed-of ideas. Better to run at the beginning of the project. Have some structure!

Set the scope, identify the project goals, run a first-cut stakeholder analysis

Partition the scope (business events → business use cases)

Use a variety of creativity techniques

Cluster new ideas by focusing on the business events

Summarize the results and feed them back to participants

Combine seemingly disparate ideas to create a new idea

Put an idea into another domain

# Brainstorming

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Better to schedule at the beginning of the project (no fixed ideas..)

Participants from a wide range of discipline and experience

Suspend judgment, evaluation, criticism, and debate

Come up with as many ideas as possible (e.g. unconventional, unique, crazy, and wild)

Write every idea down, no censoring

When getting stuck, pull a word randomly from a dictionary

After the session, lead requirements analysts and the client evaluate, screen, merge the ideas, and keep the best ones to turn them into requirements.

Keep some for further investigation



# Personas

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An imaginary **user with characteristics that match the intended audience for the product**

Gather requirements for this invented person!

Why necessary?

- More effective to have a single target user than to think about all possible people for all possible requirements

- Help assign priorities early in the project - more focused, clearer scope, sharper in usability, easier to prioritize...

- Contribute to developing a product with a clarity of purpose and a consistent way of presenting that purpose

# Mind Maps

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A drawing and text combination representing information the way your brain stores it by making association

Useful devices for organizing thoughts

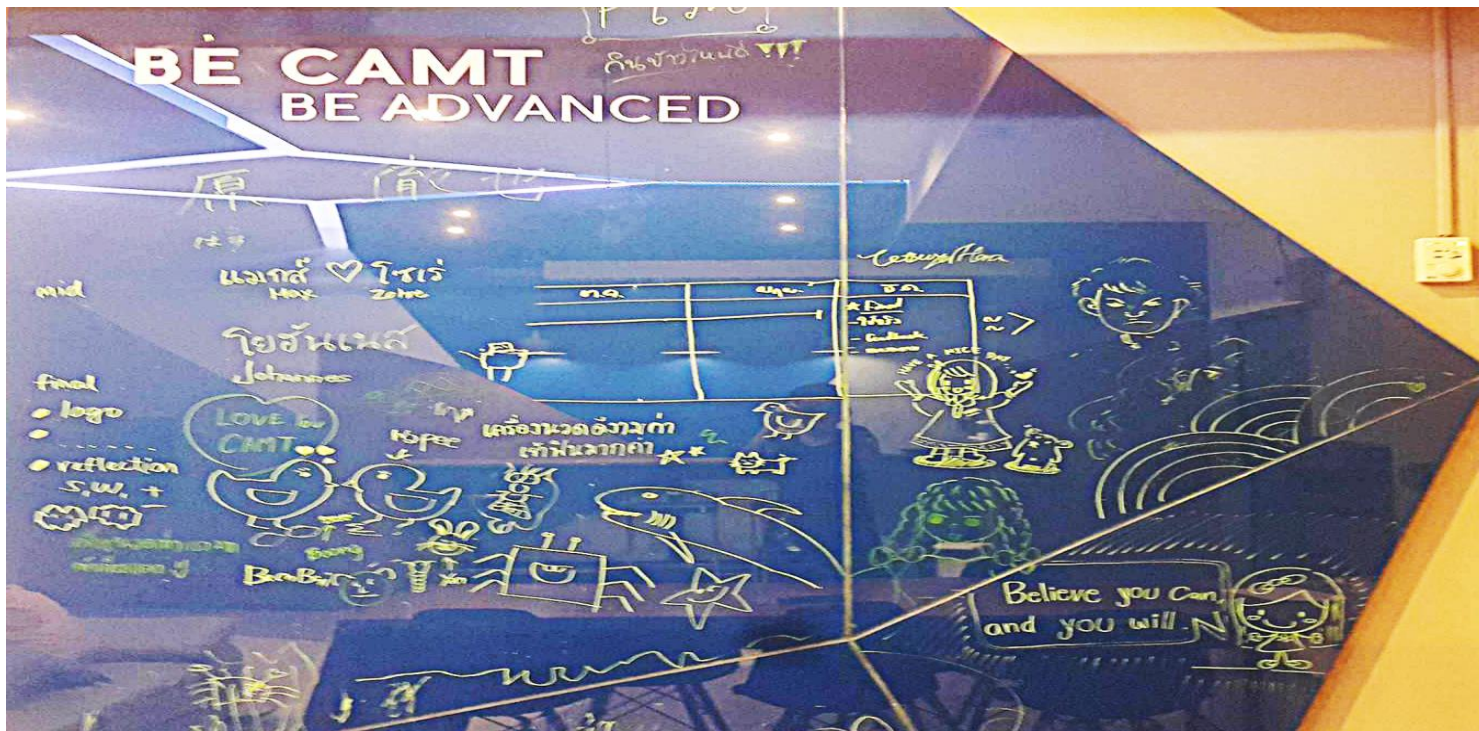
Make is more readable and memorable (using lines, colors.. )

Often in a form of a diagram with keywords, links between keywords, pictures, divergence and connections

Use the biggest sheet of paper you can find!

# Wallpaper

A paper on the wall where stakeholders can write their thoughts, leave comments, and add suggestions



# Video and Photographs

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Record, and then confirm, the proceedings in use case workshops and brainstorming, interviews and on-sight observations (e.g. users at work, a business event)

Walk through the recording with the users for clarification

Or take pictures (Always carry a small digital camera.)

# Wikis, Blogs, and Discussion Forums

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Wiki and blog: anyone can make a post or edit or add to whatever has already been posted. A way to gather substantial collection of information and opinions

Web: search for your domain of interest. Papers articles provide valuable information about your domain.

# Document Archeology

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Dig new requirements out of the material used by the old work

Inspect the documents and files used by the organization and find out underlying requirements

Should be used in conjunction with other techniques and with caution

# Interviewing the Stakeholders

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A good way for finding requirements that people are conscious of...

**BUT few people know or can think of all the requirements during the interview** (Use interview in conjunction with other techniques!)

Need skills... **who to talk with, which questions to ask**

**Prepare questionnaires in advance, send an agenda of the topic**

Let stakeholders involve in building models during the interview  
(Create a feedback loop!)