Introduction to Interaction Design
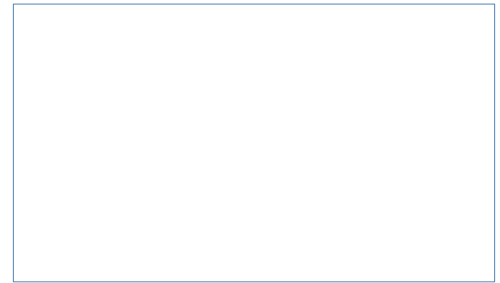
Lecture 03
Interaction Design Process

Prof. Sonal Atreya

DEPARTMENT OF DESIGN

Process of Interaction Design

The double diamond of Design

Discover — insight into the problem
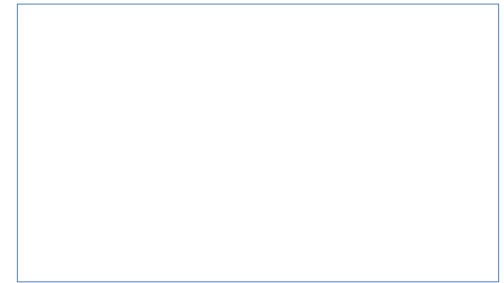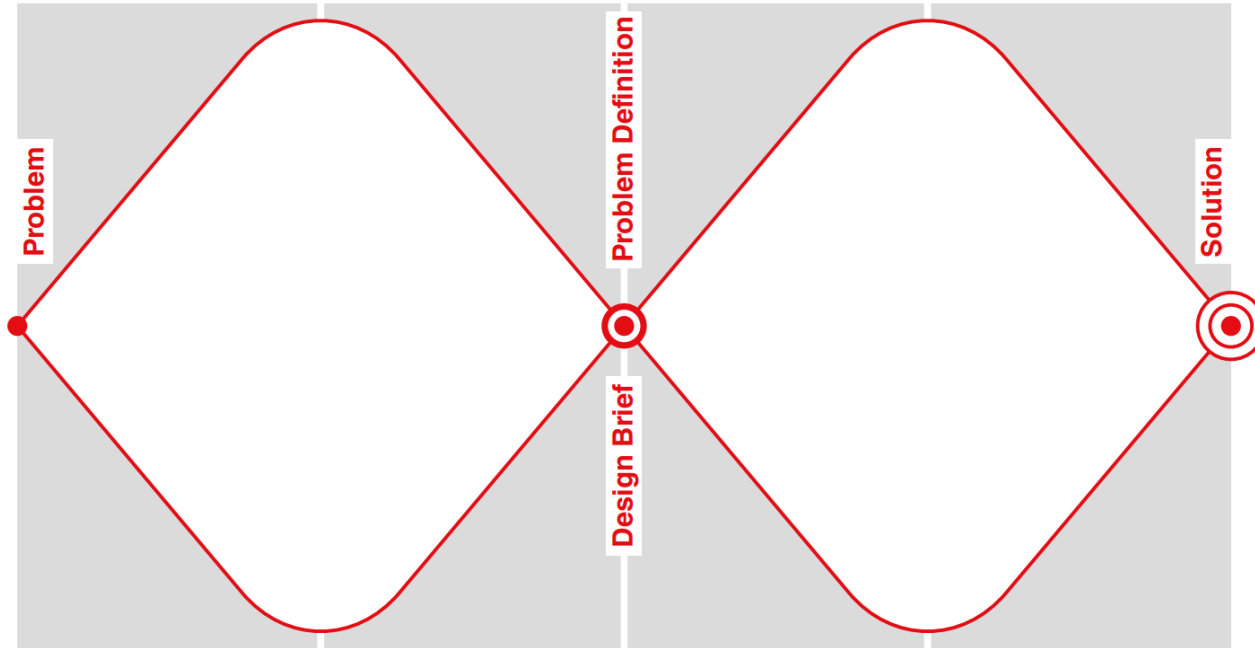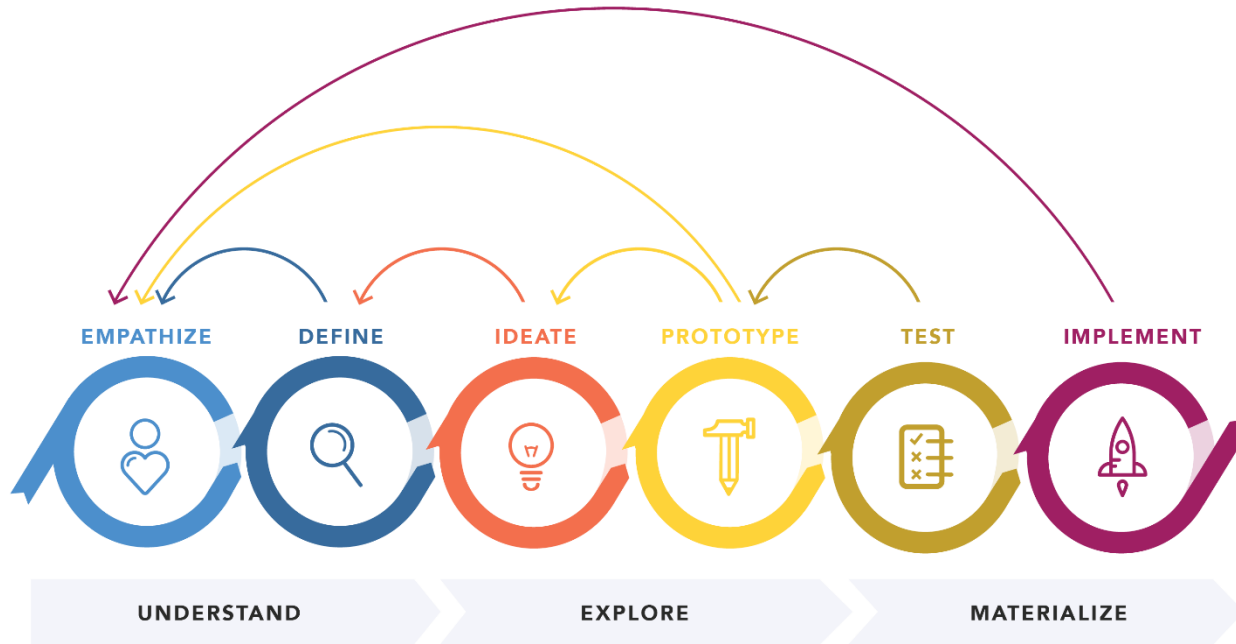Define — the area to focus upon
Develop — potential solutions
Deliver — solutions that work

Problem
Problem Definition
Design Brief
Solution

The Design Thinking process

EMPATHIZE	DEFINE	IDEATE	PROTOTYPE	TEST	IMPLEMENT

UNDERSTAND — **EXPLORE** — **MATERIALIZE**
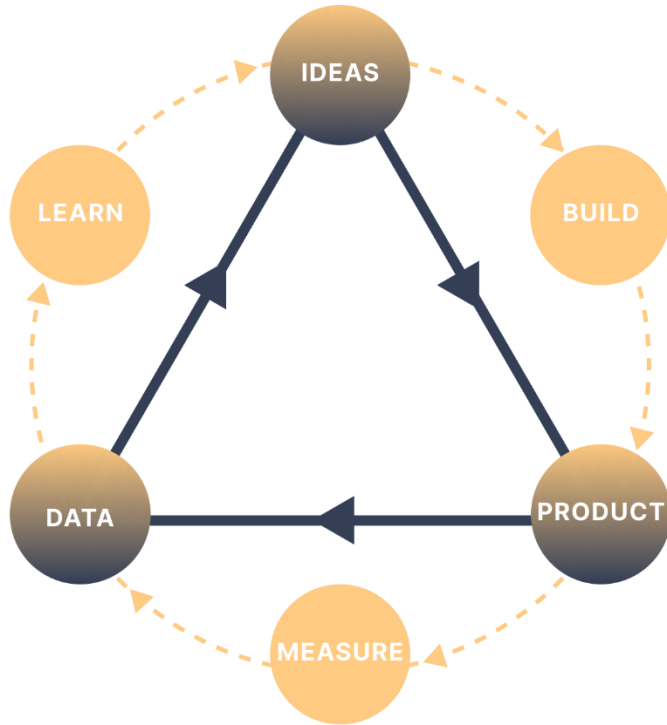
Source: Neilson Norman Group

Design Thinking is a human-centred problem-solving approach that focuses on understanding the needs and desires of the end user. It involves six phases: Empathize, Define, Ideate, Prototype, Test and Implement.
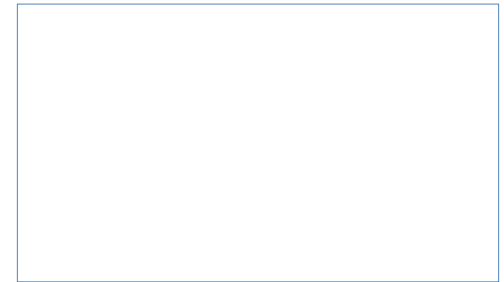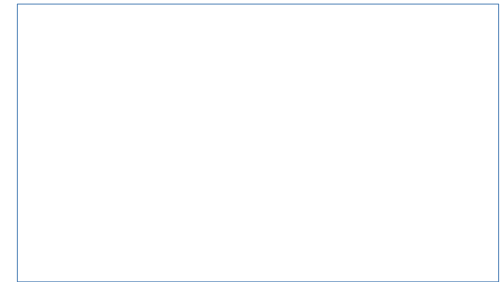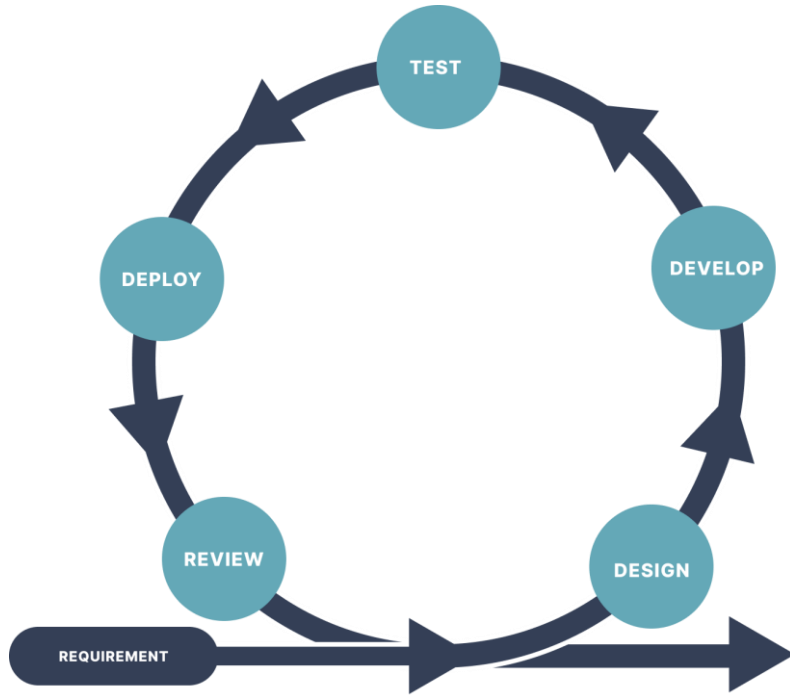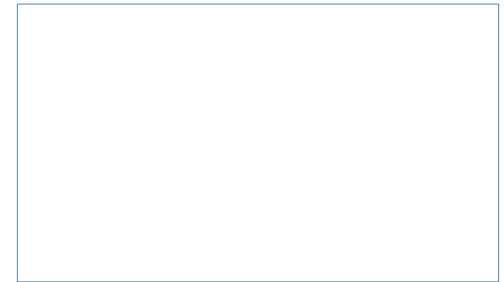
The Lean Startup process

The Lean Startup process is a methodology used in designing and launching new products or services with minimal waste of time, money, and resources. It was popularized by Eric Ries in his book "The Lean Startup."

The Agile process

The agile process is a popular methodology used in software development and is increasingly applied in design as well. In design, it methodology that emphasizes flexibility, collaboration, and iterative development in the design process.
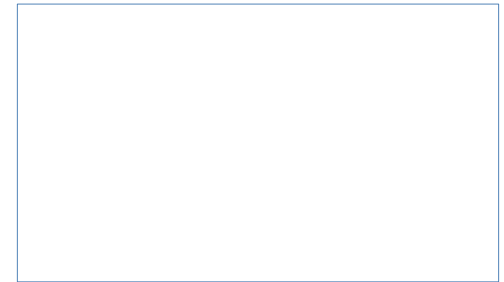
The Six Sigma process

DMAIC

| Define | Measure | Analyze | Improve | Control |

DMADV

| Define | Measure | Analyze | Design | Validate |

DMAIC

1. Initiated from a problem
2. Used in the existing process
3. Organization/Customer/Process Focused
4. Small team
5. Short to medium time frame project
6. Incremental improvement
7. Many projects available for improvement
8. Continuous improvement

DMADV

1. Initiated from an innovation solution/Idea
2. Used for new processes/products
3. Customer Focused
4. Big team
5. Long-term projects
6. Big leap improvement
7. Fewer projects available for improvement
8. Re-engineering
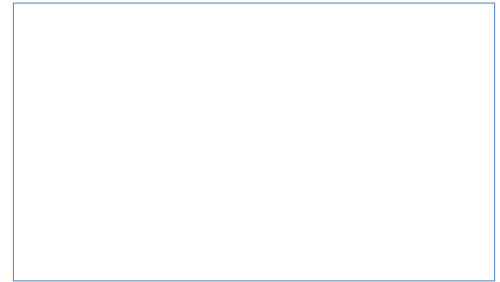
The Human-Centered Design process
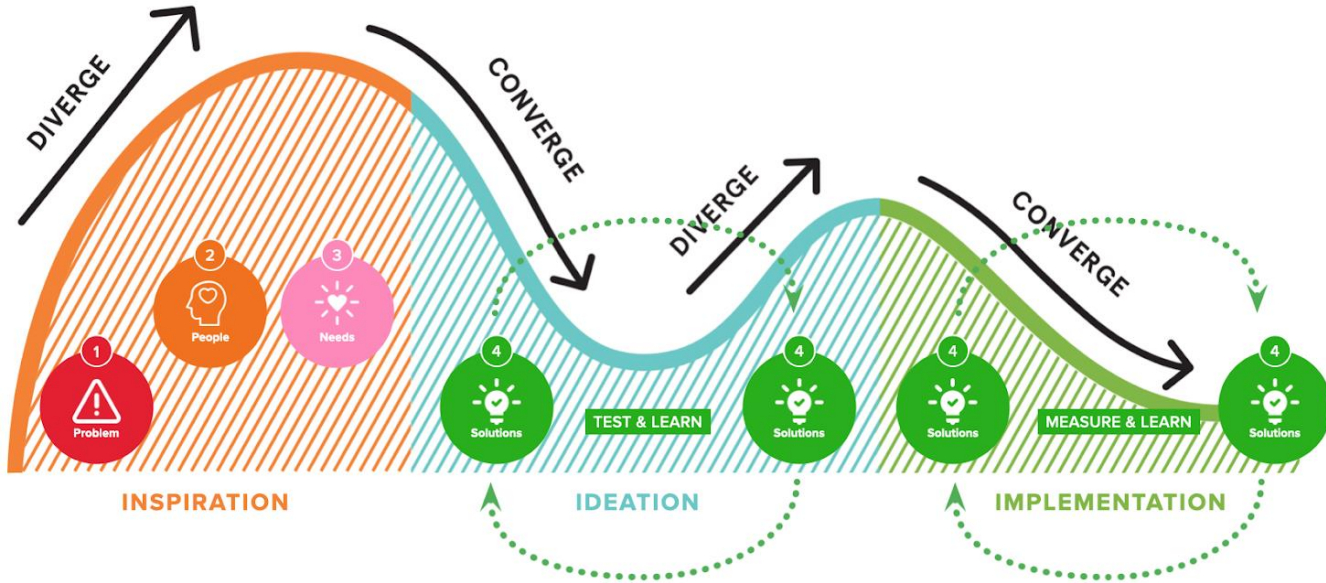

OBSERVATION

IMPLEMENT

IDEA GENERATION

HUMAN CENTERED DESIGN

TEST

PROTOTYPE

Human-Centered Design is a problem-solving approach that emphasizes understanding and empathizing with the end-user. It involves five phases: Observation, Ideation, Prototyping Test and Implement.
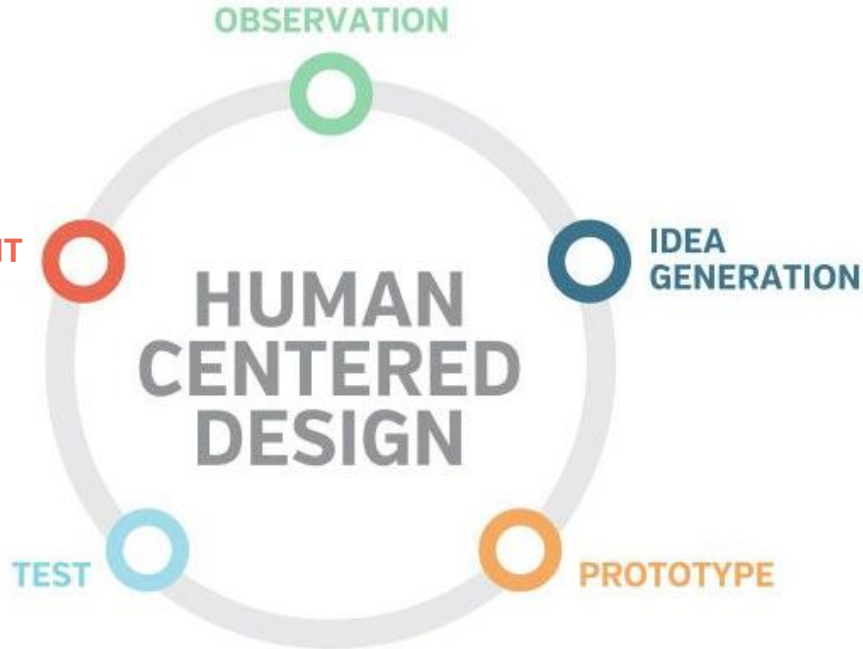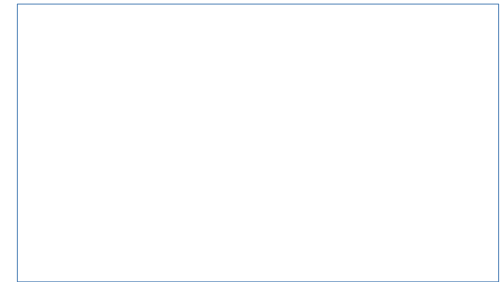
HCD design process by IDEO

* image source IDEO.org
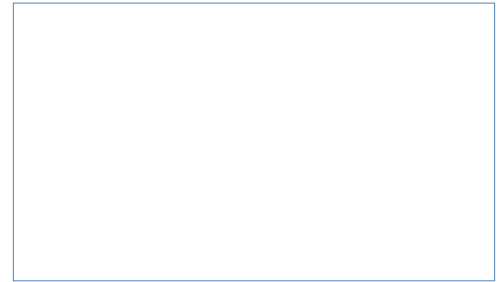
The 6 Thinking Hats

PROCESS

Blue Hat - Process
Thinking about thinking.
What thinking is needed?
Organizing the thinking.
Planning for action.

CREATIVITY

Green Hat - Creativity
Ideas, alternatives, possibilities.
Solutions to black hat problems.

FACTS

White Hat - Facts
Information and data.
Neutral and objective.
What do I know?
What do I need to find out?
How will I get the information I need?

BENEFITS

Yellow Hat - Benefits
Positives, plus points.
Why an idea is useful.
Logical reasons are given.

FEELINGS

Red Hat - Feelings
Intuition, hunches, gut instinct.
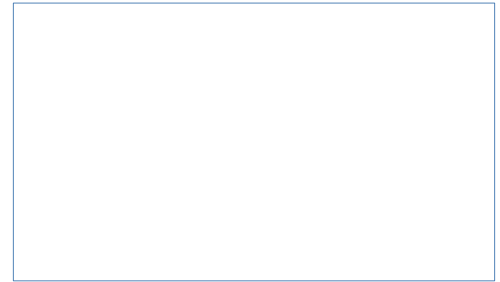My feelings right now.
Feelings can change.
No reasons are given.

CAUTIONS

Black Hat - Cautions
Difficulties, weaknesses, dangers.
Spotting the risks.
Logical reasons are given.

Source: https://www.onedaydesignchallenge.net/en/journal/six-thinking-hats-technique

Thank You