

DESIGN THINKING



A low-angle, black and white photograph of several tall skyscrapers reaching towards a dark sky. The perspective creates a sense of height and scale. A white rectangular frame is centered over the image, containing the title text.

01 What is Design Thinking ?

What is Design Thinking?

Design thinking is a non-linear, iterative process that teams use to understand users, challenge assumptions, redefine problems, and create innovative solutions to prototype and test. It is most useful to tackle problems that are ill defined or unknown.

A low-angle, black and white photograph of several skyscrapers reaching towards the sky. The perspective creates a sense of height and scale. The buildings are dark, with some windows reflecting light. The sky is a uniform dark grey.

02

Core
Principles
of Design
Thinking

Core Principles of Design Thinking

The core principles of Design Thinking involve:

Empathy- a deep understanding of the users' needs, emotions and experiences by observing and engaging with them. This human-centered approach ensures that solutions address real issues people face, leading to more meaningful and impactful designs.

Ideation- Ideation is about generating a wide range of ideas and exploring creative solutions. It's an open and collaborative phase where brainstorming, challenging assumptions, and thinking outside the box are encouraged. The goal is to come up with as many ideas as possible, without judgment, to find innovative solutions.

Experimentation- quick, tangible prototypes of ideas which can be simple models or sketches. Experimentation helps identify potential issues early and fosters a hands-on approach to testing ideas in real-world scenarios.

Iteration- process of refining and improving ideas based on user feedback. After testing prototypes, designers make adjustments, re-test, and continue this cycle until they reach an effective solution.

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03

The Design
Thinking
Process

1. Empathise

The first step of the Design Thinking process involves the understanding of the needs, experiences and emotions of the users. By observing and engaging with people, designers gain deep insights into the challenges users face. This human-centered approach lays the foundation for creating relevant and impactful solutions.

2. Define

In this stage, designers synthesize the information gathered during empathy to clearly define the problem. A well-articulated problem statement, often called a “point of view,” helps focus on specific user needs and provides a clear direction for generating ideas.

3. Ideate

During ideation, the goal is to brainstorm and explore a wide range of creative solutions. Team members are encouraged to think freely, challenge assumptions, and push boundaries to come up with innovative ideas. This stage focuses on quantity over quality, as more ideas can lead to unexpected insights.

4. Prototype

This stage involves creating tangible, low-cost versions of the ideas generated. Prototypes can be simple sketches, models, or digital simulations that bring ideas to life. By experimenting with different approaches, designers can explore how solutions might work in practice.

4. Test

Testing prototypes with real users is crucial for gathering feedback and identifying areas for improvement. This stage is iterative; based on user feedback, prototypes may be refined, redesigned, or even reimaged. Testing ensures that the final solution effectively addresses user needs.

A low-angle, black and white photograph of several skyscrapers reaching towards a cloudy sky. The perspective creates a sense of height and scale. The buildings are dark, and the sky is a lighter, textured grey.

04

Design
Thinking
Tools and
Techniques

Tools and Techniques

- Conduct one-on-one interviews to understand users' needs, experiences, and motivations.
- Reframe the problem into open-ended questions that invite solutions, such as, “How might we make task management easier for busy users?”
- Use diagrams to connect related ideas, helping expand thinking around a central concept.
- Use a sequence of images to outline how users would experience a solution step-by-step. (storyboarding)
- Observe users as they interact with the prototype, noting any challenges they encounter.

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05 Benefits of Design Thinking

Benefits of Design Thinking

- Tailored to real challenges that people face by prioritising empathy and understanding users' needs.
- Design thinking encourages brainstorming and exploration of multiple solutions, fostering creative ideas and unconventional approaches. It allows teams to think outside the box and explore ideas they might not have considered in a more rigid process.
- Encourages different perspectives from people of different backgrounds→ more collaboration
- The design thinking process promotes a growth mindset, as teams learn from failures and successes. This emphasis on learning creates a culture of continuous improvement, where ideas evolve over time

A low-angle, black and white photograph of several tall skyscrapers reaching towards the sky. The perspective creates a sense of height and scale. The buildings are dark, and the sky is a lighter, hazy grey.

06

**Common
Challenges and
Solutions of
Design Thinking**

Common Challenges and Solutions of Design Thinking

1. **Challenge:** Some team members may struggle to adopt a user-centered mindset or may not prioritise user empathy.

Solution: Encourage activities that promote user understanding, like user interviews and empathy mapping. Use personas and journey maps to put a human face on the problem, helping the team relate to users on a personal level.

1. **Challenge:** Team members might hesitate to take risks or may feel uncomfortable with an iterative, trial-and-error approach.

Solution: Foster a culture that celebrates experimentation and views failure as a learning opportunity. Emphasise the importance of prototyping and testing early to refine ideas before significant investments.

1. **Challenge:** Focusing solely on user needs can sometimes lead to solutions that are not aligned with business goals or constraints.

Solution: Set clear project objectives that consider both user needs and business goals. Use prioritization frameworks, like the MoSCoW method (Must-have, Should-have, Could-have, and Won't-have), to balance user and business requirements.

1. **Challenge:** The design thinking process can be time-consuming, and teams may feel pressured to skip stages or rush through them.

Solution: Set clear timelines and break the process into manageable phases. Use time-boxing techniques to allocate specific periods to each stage, and encourage quick prototyping and iteration to maintain momentum.