



# User Research Methods

MAD9034

Introduction to  
User Experience Design

**Warm-up project**  
**User Research | Analysis**  
week 1 of 3

**Warm-up project**  
**Ideation | Prototyping**  
week 2 of 3

**Warm-up project**  
**Testing | Presentation**  
week 3 of 3

# User Research

## Definition and Goals

### **Building empathy for users**

Who are the users?

What are their goals, needs and expectations interacting with your product?

What is the context of use?

User research focuses on understanding user behaviors, needs and motivations through interviews, surveys, usability evaluations and other forms of feedback methodologies. It is used to understand how people interact with products and evaluate whether design solutions meet their needs."

[wikipedia.org/](https://en.wikipedia.org/)

# UX Design Process

## Empathize with users

- **Empathize**

Study user behaviours, research user goals, understand client objectives

- **User research**
- Stakeholder interviews
- Competitive analysis
- Marketing research
- Brand needs

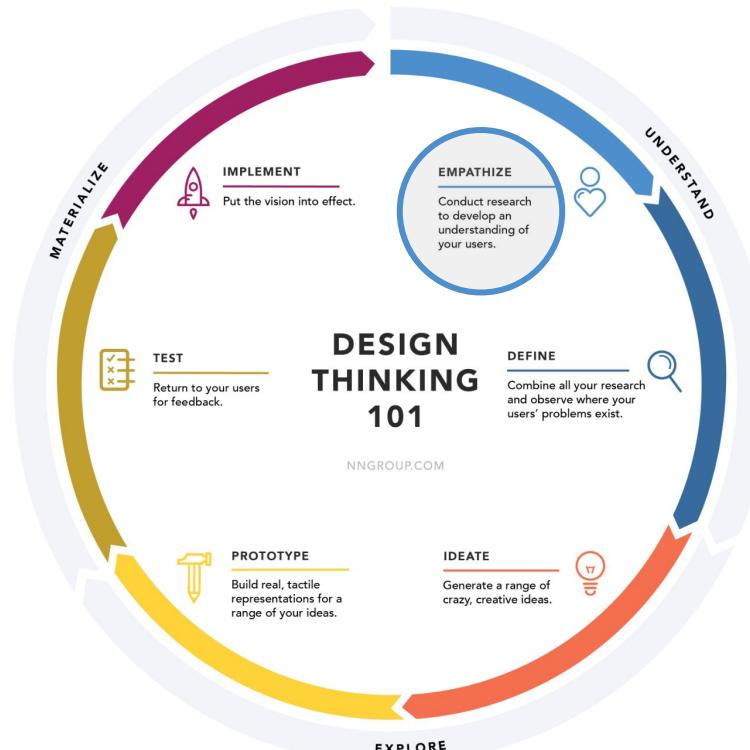
- **Define**

- **Design/Ideate**

- **Prototype**

- **Test**

- **Implement + Measure**



# User Research

Why user research is important and how to do it

## Why

To understand the users'

- Behaviours
- Needs
- Motivations

## How to choose the research method

- Type of product
- Project timeline and resources
- Specifics of the work environment

## How

- Observation techniques
- Task analysis
- Other methods of collecting feedback

# User Research

A selection of methods used in UX Design

- Card Sorting
- Contextual interviews/Observation Sessions
- First Click Testing
- Focus Groups
- Heuristic Evaluation/Expert Review
- Individual Interviews
- Personas
- Prototyping
- Surveys
- System Usability Scale (SUS)
- Task Analysis
- Usability Testing
- Use Cases (Usage Scenarios)

[UX Research Cheat Sheet](#)

# User Research Methods

## Card Sorting

Allows users to group labels written on cards in categories that make sense to them. This helps ensure that the application structure matches the way users think.

### Card Sorting



[Image source](#)

# User Research Methods

## Contextual Interviews (Inquiry)

Enable you to observe users in their natural environment, giving you a better understanding of the way users work.

[Contextual Inquiry](#)

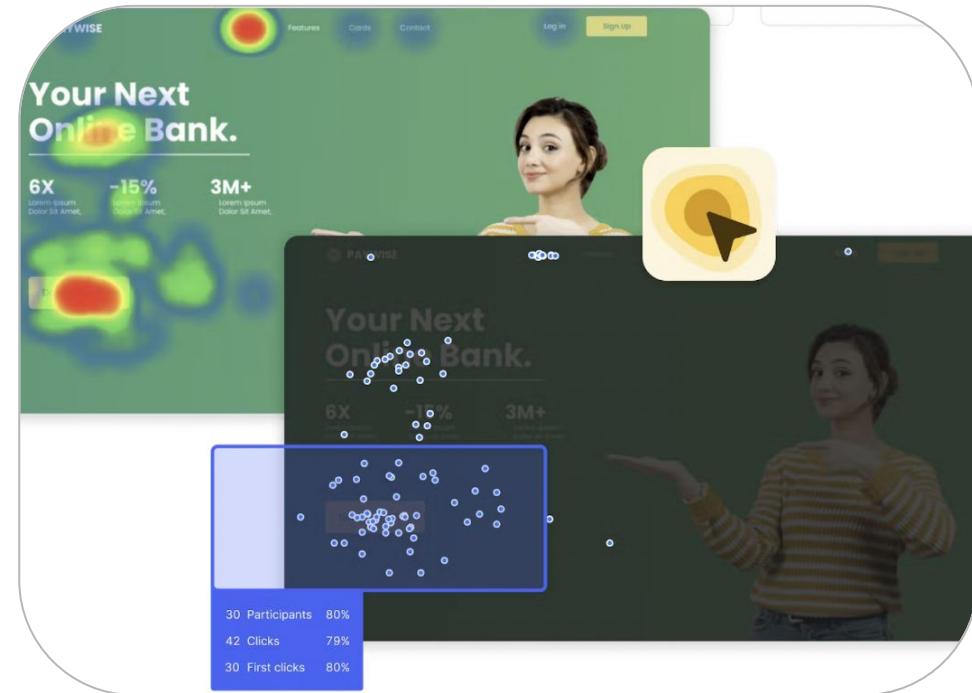


[Image source](#)

# User Research Methods

## First Click Testing

A testing method focused on navigation, which can be performed on a functioning website, a prototype, or a wireframe.



[Image source](#)

# User Research Methods

## Focus Groups

Moderated discussion with a group of users, allow you to learn about user attitudes, ideas, and desires.

### Focus Group 101



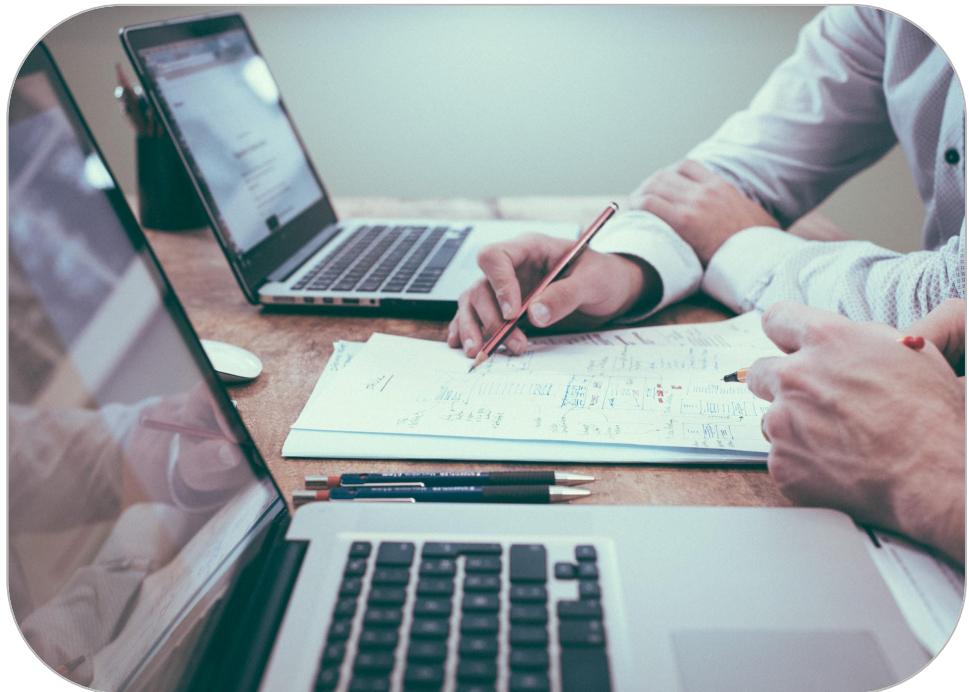
[Image source](#)

# User Research Methods

## Heuristic Evaluation

Usability experts evaluating your website (app) against a list of established guidelines.

[10 Usability Heuristics for User Interface Design](#)



[Image source](#)

# User Research Methods

## Individual Interviews

One-on-one discussions with users show you how a particular user works. They enable you to get detailed information about a user's attitudes, desires, and experiences.

### Interviewing Users



[Image source](#)

# User Research Methods

## Parallel Design

Involves several designers pursuing the same effort simultaneously, but independently, with the intention to combine the best aspects of each for the ultimate solution.

Parallel and Iterative Design + Competitive Testing = High Usability



[Image source](#)

# User Research Methods

## Persona

Create a representative user based on available data and user interviews. Some personal details may be fiction, but the information used to create the user type is not.

## Personas Articles and Videos

The persona template for Nigel Moyes includes the following sections:

- BIO:** "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vitae molestie lacus, nisl vel. Pellentesque risus morbi ipsum aliquam felis sodales."
- NEEDS AND GOALS:**
  - Lorem ipsum dolor sit amet, consectetur adipiscing elit. Egestas nascetur ut sapien elit pellentesque urna.
  - Lorem ipsum dolor sit amet, consectetur adipiscing elit.
  - Lorem ipsum dolor sit amet, consectetur adipiscing elit. Adipiscing cras tellus suspendisse ultrices.
- FRUSTRATIONS AND PAIN POINTS:**
  - Lorem ipsum dolor sit amet, consectetur adipiscing elit.
  - Lorem ipsum dolor sit amet, consectetur adipiscing elit. Purus, volutpat orci nec et habitant nibh at facilisi. Duis in integer ultrices habitasse. Lobortis nibh ut id id senectus.
  - Lorem ipsum dolor sit amet, consectetur adipiscing elit.
- MOTIVATIONS:** Motivation (e.g. "Price")
  - Motivation
  - Motivation
  - Motivation
  - Motivation
- INFLUENCES:** Influence (e.g. "Family", "Friends")
  - Influence
  - Influence
  - Influence
  - Influence
- TECHNOLOGY:** Technology (e.g. "Desktop", "Mobile")
  - Technology
  - Technology
  - Technology
  - Technology
- BRAND AFFILIATION:** DIOR, Target, Nike, IKEA
- SOFTWARE AND APPS:** Netflix, Instagram, Google Chrome, Spotify

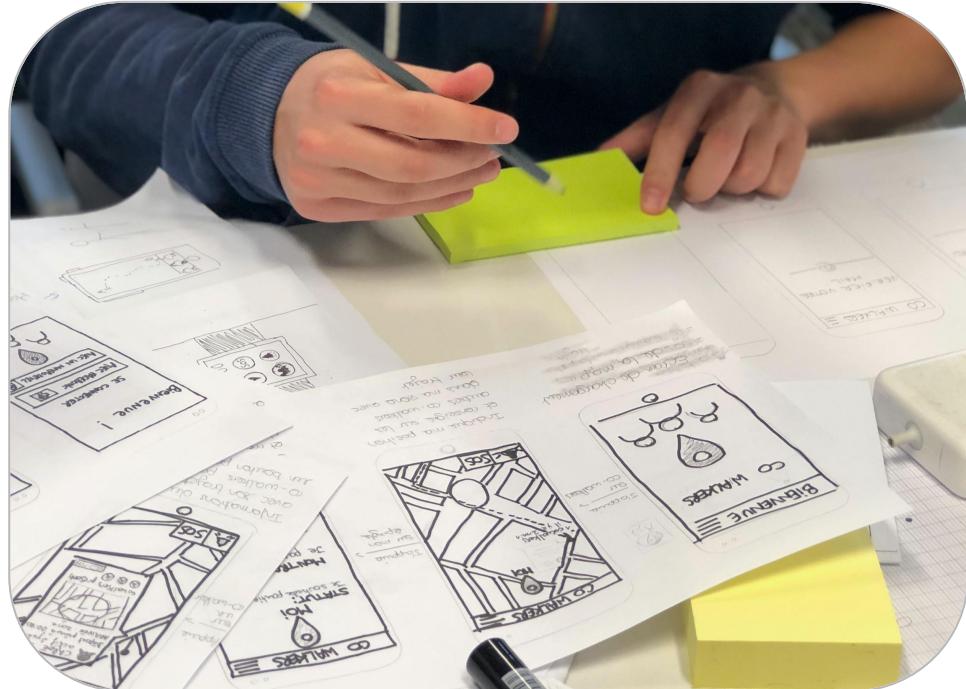
Figma template by Nigel Moyes

# User Research Methods

## Prototyping

Explore ideas before implementing them by creating a mock-up. A prototype can range from a paper mock-up to interactive html pages

### Prototype Specifications: 3 Types



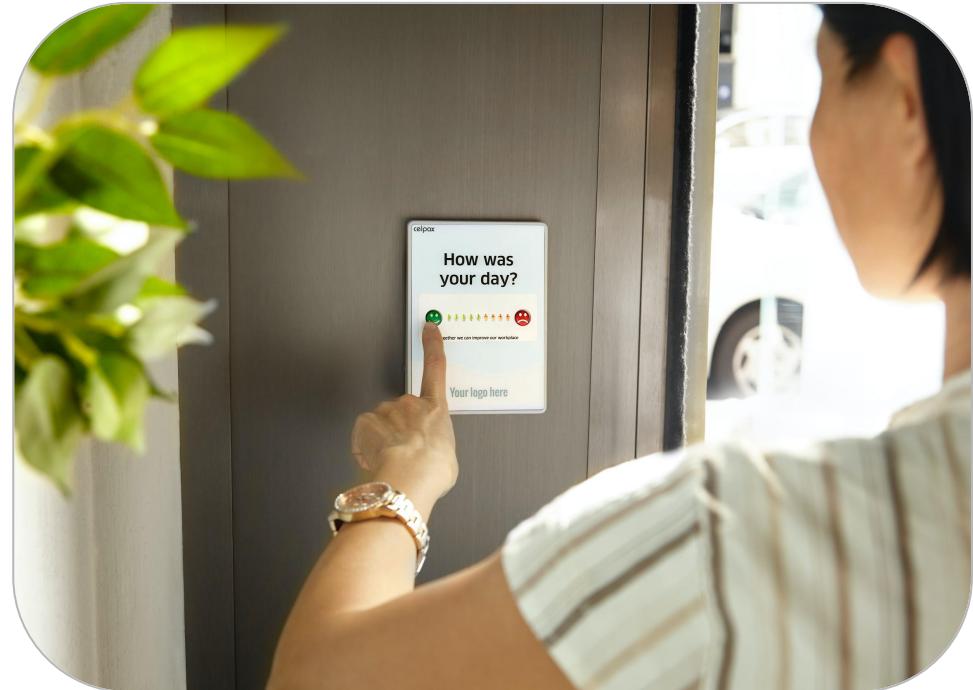
[Image source](#)

# User Research Methods

## Survey

A series of questions asked to multiple users of your product, help you learn about the people who use your product.

[How to Design Effective User Surveys for UX Research](#)



[Image source](#)

# User Research Methods

## System Usability Scale (SUS)

SUS is a technology independent ten item scale for subjective evaluation of the usability.

### The System Usability Scale (SUS)

#### System Usability Scale (SUS)

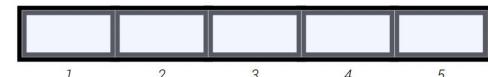
Strongly Disagree

Strongly Agree

I think that I would like to use this product frequently.



I found the product unnecessarily complex.



I thought this product was easy to use.



I think that I would need the support of a technical person to be able to use this product.



I found the various functions in this product were well integrated.



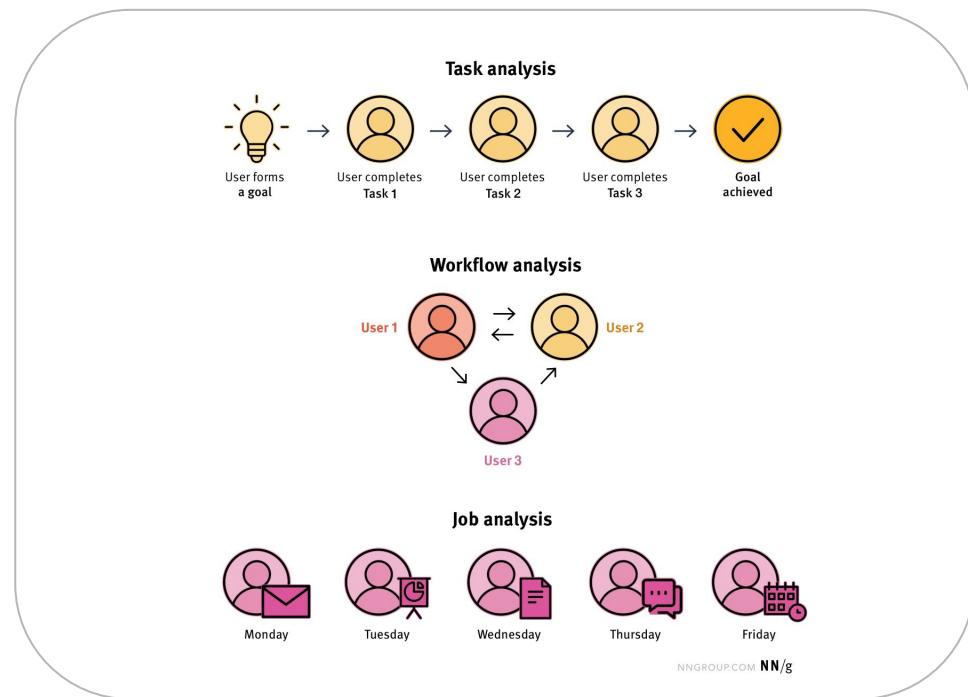
[Image source](#)

# User Research Methods

## Task Analysis

Involves learning about user goals, including what users want to do on your App, and helps you understand the tasks that users will perform on it.

### Task Analysis: Support Users in Achieving Their Goals



[Image source](#)

# User Research Methods

## Usability Testing

Usability testing refers to evaluating a product or service by testing it with representative users.

### Usability Testing 101



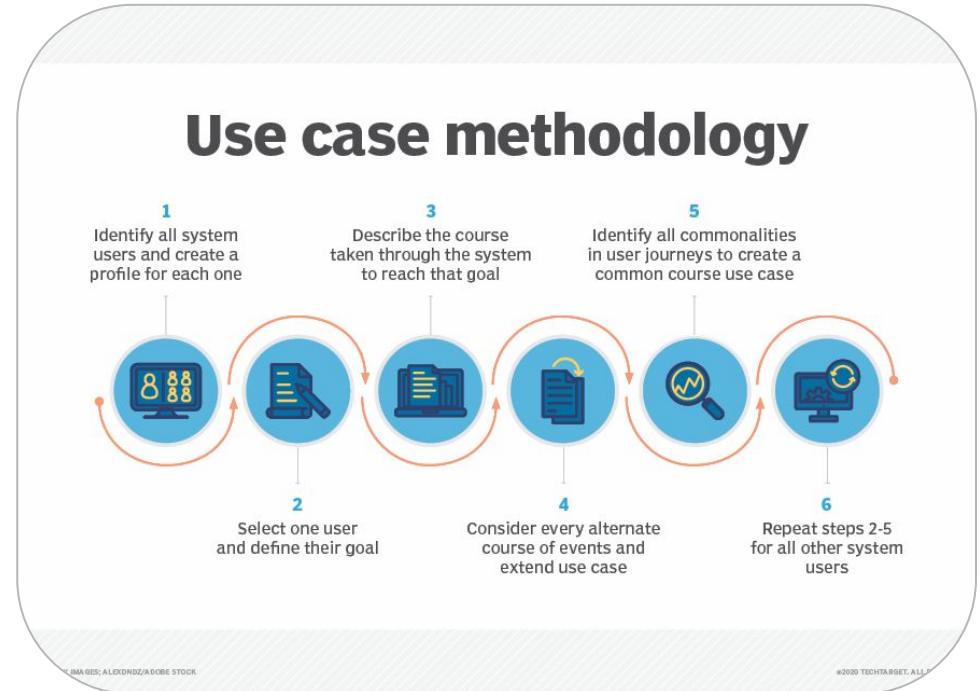
[Image source](#)

# User Research Methods

## Use Case

Use cases, scenarios and storyboards focus on describing how users use your product and their goals.

## Use Cases



[Image source](#)

# User Research Methods

## Know the User

	Know the user	Content	Design	Test & Refine
Card sorting	●			
Contextual Interviews	●			
Focus Groups	●			
Individual Interviews	●			
Persona	●			
Usability Testing	●			
Task Analysis	●			
Use Cases	●			
Surveys	●			

# Know the User

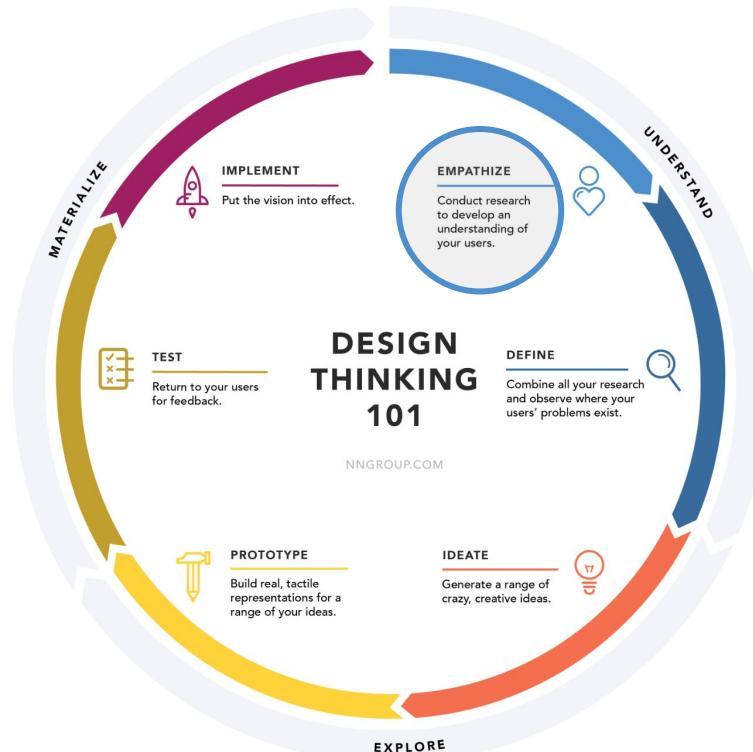
## Goals

**Building empathy for users**

Who are the users?

What are their goals, needs and expectations interacting with your product?

What is the context of use?



# User Research

3 dimensions

- **Attitudinal vs Behavioural**
- **Qualitative vs Quantitative**
- **Context of Use**

# User Research

3 dimensions

- **Attitudinal vs Behavioural**

**Attitudinal:** What people **say** (surveys, focus groups, interviews, card sorting) **Marketing studies** rely on **attitudinal research**.

**Behavioural:** What people **do** (observation sessions, first-click testing, eye tracking, moderated usability testing, A/B testing)  
**Usability studies** focus on behavioural research.

- **Qualitative vs Quantitative**
- **Context of Use**

# User Research

3 dimensions

- Attitudinal vs Behavioural
- Qualitative vs Quantitative

**Qualitative:** gather data observing users directly

**Quantitative:** analysis of data gathered from answers to questions

- Context of Use

# User Research

3 dimensions

- Attitudinal vs Behavioural
- Qualitative vs Quantitative
- Context of Use

Natural or near-natural use of the product (A/B testing)

Scripted use of the product (usability testing)

Not using the product (interview, card sorting)

Hybrid (participatory design)

# User Research Methods

Know the User

	<b>Behavioural/ Attitudinal</b>	<b>Qualitative/ Quantitative</b>	<b>Context of Use</b>
Card sorting	attitudinal	qualitative	
Contextual Interviews	attitudinal	qualitative	
Focus Groups	attitudinal	qualitative	
Individual Interviews	attitudinal	qualitative	no product usage
Persona	behavioural	qualitative/quantitative	no product usage
Usability Testing	behavioural	qualitative	scripted usage
Surveys	attitudinal	quantitative	

[How to choose the right research method](#)

# Warm-up Project

Apple Watch fitness application  
Building empathy through user research

# Warm-up Project

Intro and method of work

**Project:** Design an Apple Watch fitness application

**Method:** Fast-tracked, 3-week process following the principles of a **design sprint**.

**Work structure:** Groups of 3-4 students

**Assignments:** Multiple exercises that take you through the phases of the design process

# Design Sprint

## Quick overview

A **design sprint** is a 5-day process developed by Google Ventures for answering critical business questions through **designing, prototyping, and testing** ideas with customers.

<b>Prep day</b>	Set the stage
<b>Day 1</b>	Set a long-term goal, map the challenge, ask the experts, select a problem to solve
<b>Day 2</b>	Review existing ideas, sketch individual solutions
<b>Day 3</b>	Critique all ideas, vote, combine winning ideas in a storyboard
<b>Day 4</b>	Turn the storyboard into a prototype
<b>Day 5</b>	Test the prototype with customers and decide on next steps

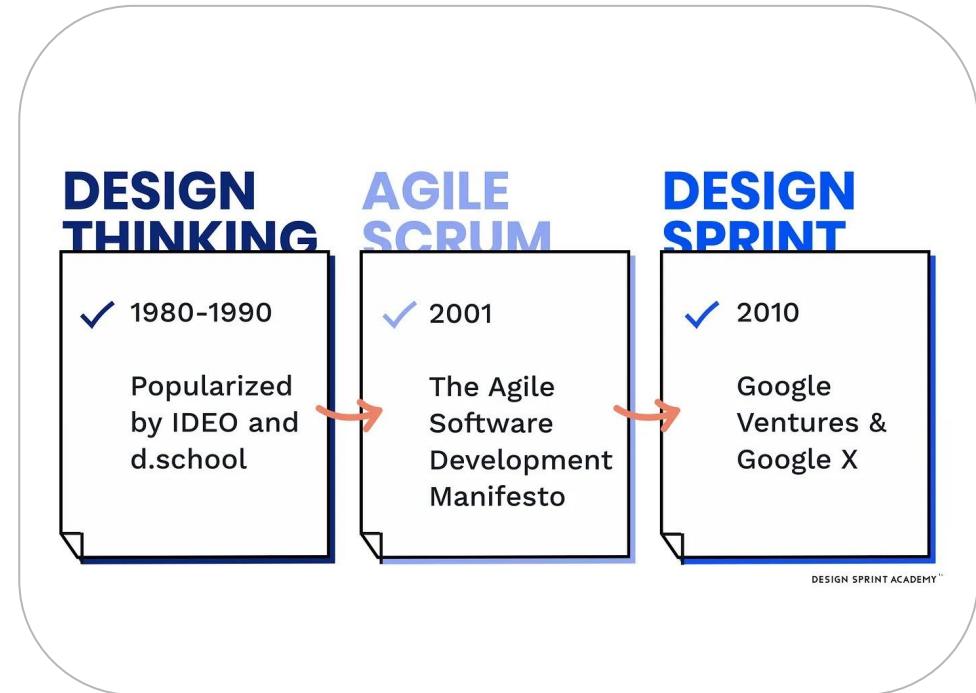
# Design Sprint

## Design Thinking vs Design Sprint vs Agile

**Design Thinking** is both a problem definition and problem-solving method.

**Design Sprint** is purely a problem-solving method for which you need a well-defined problem.

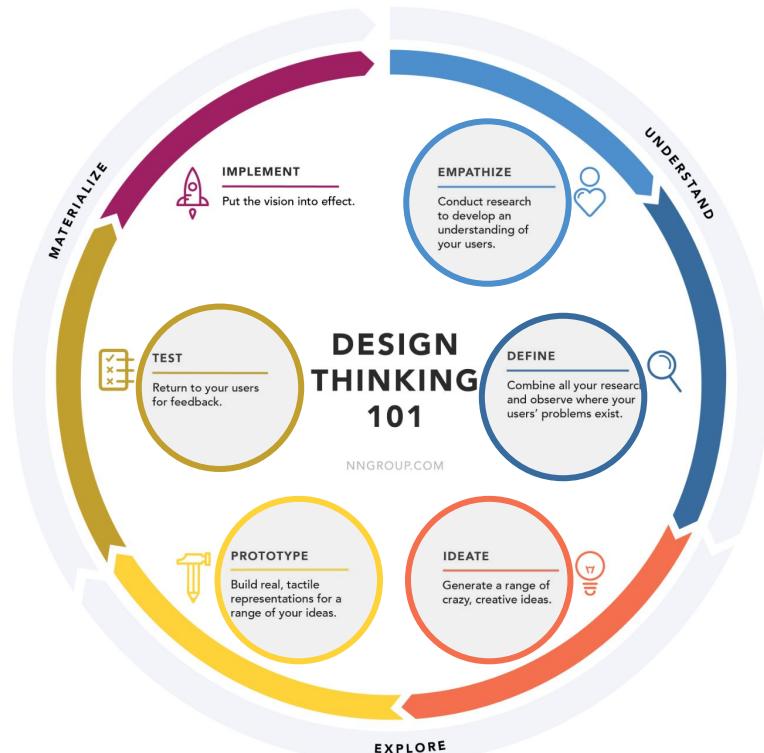
**Agile** is an approach to building or executing something interactively and iteratively.



[Image source](#)

# Design Sprint and UCD

Day 1	Set a long-term goal, map the challenge, ask the experts, select a problem to solve
Day 2	Review existing ideas, sketch individual solutions
Day 3	Critique all ideas, vote, combine winning ideas in a storyboard
Day 4	Turn the storyboard into a prototype
Day 5	Test the prototype with customers and decide on next steps

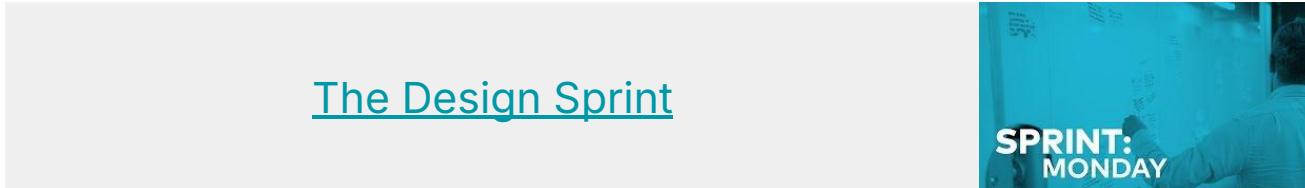


[Image source](#)

# Fitness Application Design

## Work breakdown

<b>Week 2.1 (today)</b>	Form groups. Prepare to learn about your user, context of usage and the problems to solve. Conduct user interviews to "know your user."
Week 2.2	Map out the problem and select a place to focus.
Week 3.1	Sketch ideas and choose the one to proceed with.
Week 3.2	Create a prototype
Week 4.1	Test the prototype with real people

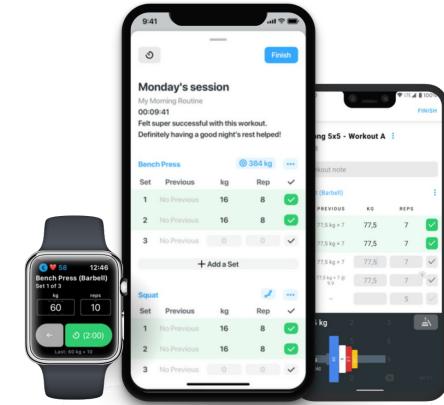


# Fitness Application Design

## Examples



[Image source](#)



[Image source](#)



[Image source](#)

# Today, in class

Preparation for user interviews

- Form your groups
- Create a user interview script
- Each student conducts 3 interviews with 3 different people by Thursday

[User Interviews: How, When and Why to Conduct Them](#)

[Writing an Effective Guide for a UX Interview](#)

[6 Mistakes When Crafting Interview Questions](#)

# User Interviews

## Tips

Prepare	Plan	Execute
<ul style="list-style-type: none"><li>• Set goals</li><li>• Select participants</li><li>• Define a protocol</li><li>• Assign roles</li></ul> <p><b>Make sure you have a note taker!</b></p>	Create a script to find out: <ul style="list-style-type: none"><li>• Relevant information about the users of a fitness app</li><li>• A problem to design for</li></ul> <p><b>Max. 15 minutes Dry-run - very important</b></p>	3 interviews per student, 9 per team   <p><b>Don't forget the NDA!</b></p>

# Exercise 1

User research: Individual interviews

[Details on the course website: Exercise 1](#)

# Coming up

## User Research Analysis



**Mandatory**

**Exercise 1 submission** - you will use the interview notes in class to do your analysis