Human-Computer Interation 2024/2025

Lab Class 0

The Lab Class about Lab Classes

universidade de aveiro
deti departamento de electrónica, telecomunicações e informática

Why should HCI Matter?

Computers Solve Problems, but for whom?

If people can’t use a system easily, does it really work?

Designing with people in mind makes technology useful, efficient, and impactful

But I master the technology very well… so why think about HCI?

- **Hard to use systems** lead to mistakes and stress
- **Fixing bad design takes time** and resources
- People **won’t use something they don’t understand**

What do I have to gain?

- **Good design** makes technology successful
- **Understanding people** helps build better software
- **Thinking beyond code** leads to more innovation and impact

Role of HCI in Companies

- Companies leverage HCI principles to **create better products and services**, leading to increased customer engagement

- Also relevant, **make technology more accessible** to everyone

- Experience in HCI helps bring critical thinking, user research, and data analysis skills that are essential for innovation

- HCI principles are applicable in industry, healthcare, finance, gaming, and other fields, increasing job opportunities

Role of HCI in Companies

- HCI helps you stand out when the time comes!

Designing interactive systems is designing for what **people** need, helping them reach **their goals**

Human Centred Design (HCD)

A problem-solving approach that focuses on the needs, behaviors, and experiences of **users at every stage of design**

Empathy – Understand user needs, contexts, and challenges

Iteration – design, test, and refine through feedback

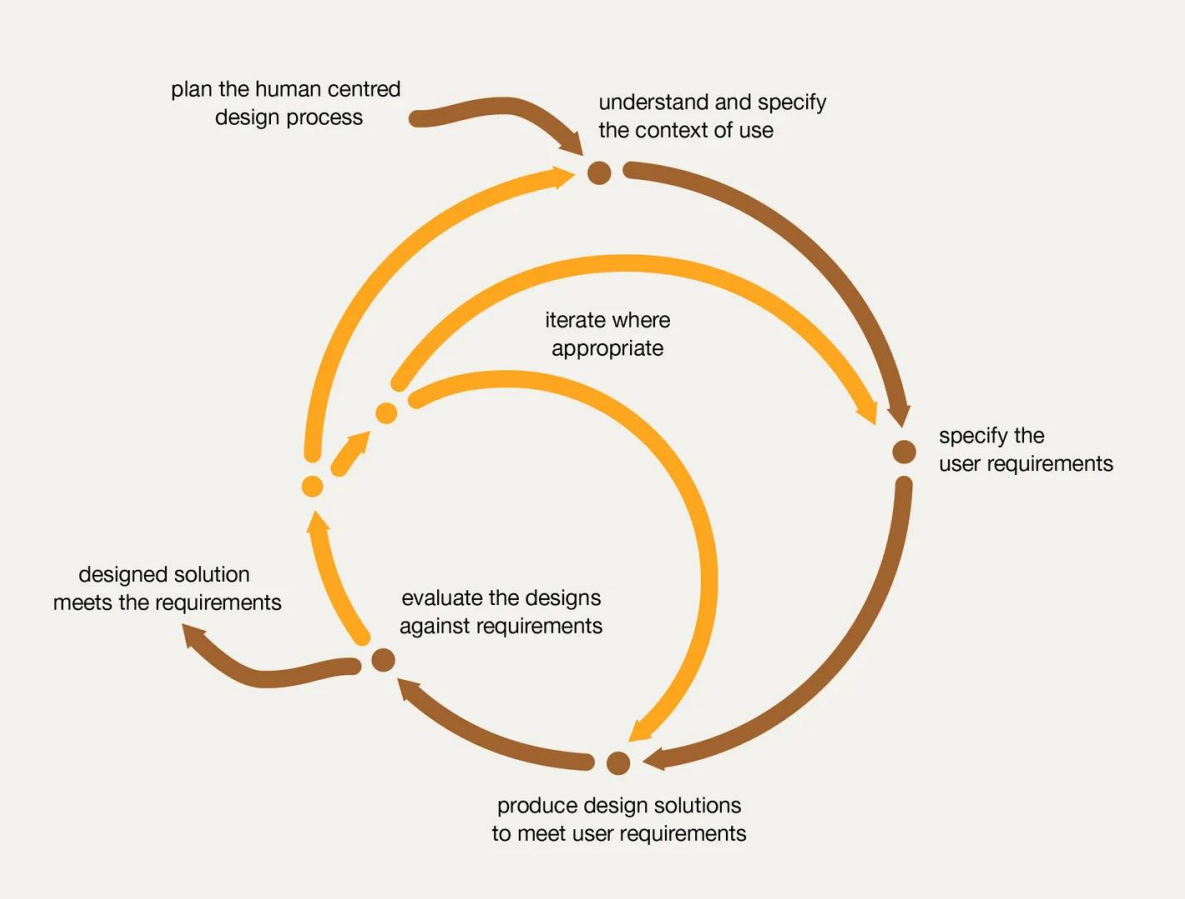
Usability – Ensure the solution is intuitive and effective

Co-creation – Involve users in the design process

Human Centred Design LifeCycle

The HCI course is built around an iterative HCD approach

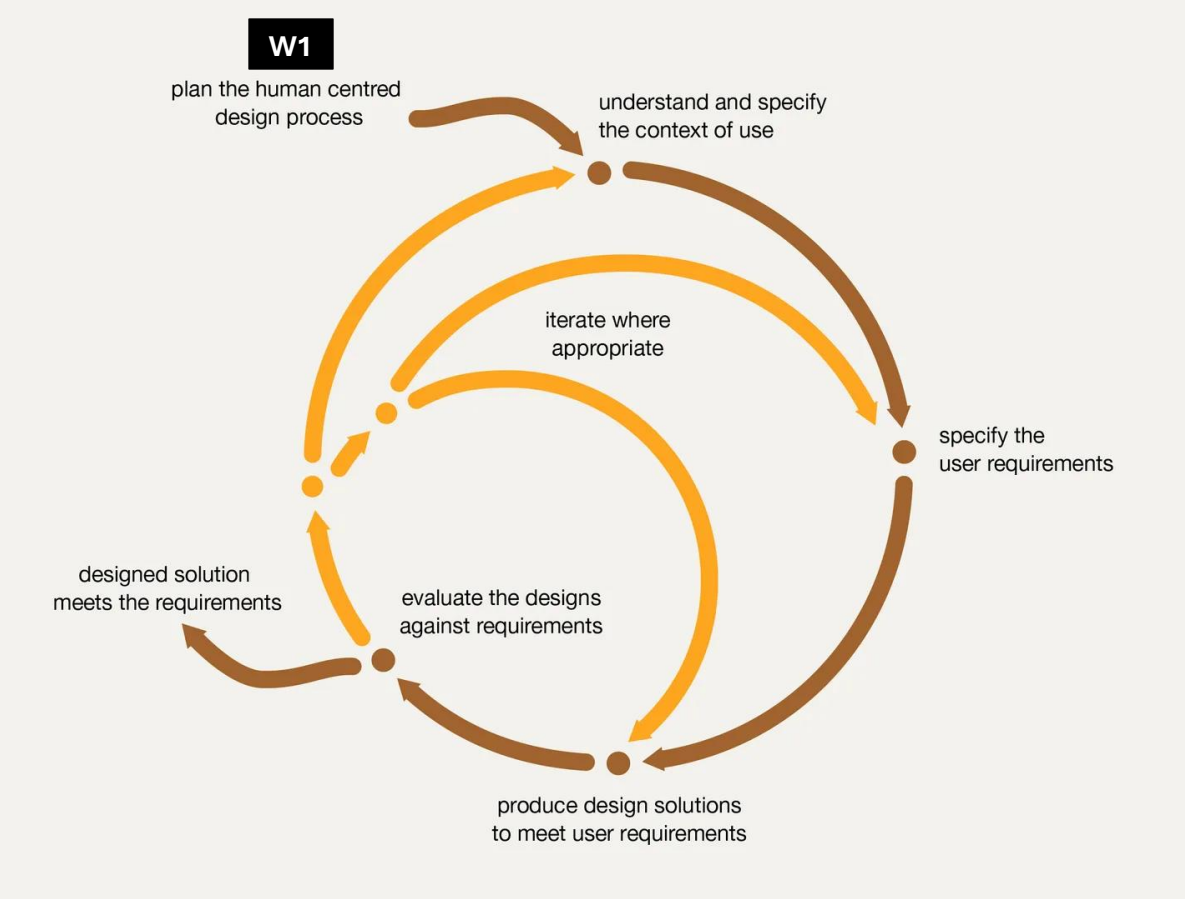
How will we advance, over time?



HCD Lifecycle and HCI Lab Classes

W1
Plan the HCD design process

- Form groups of 3
- Choose project idea
- Get familiar with the basics of HCD

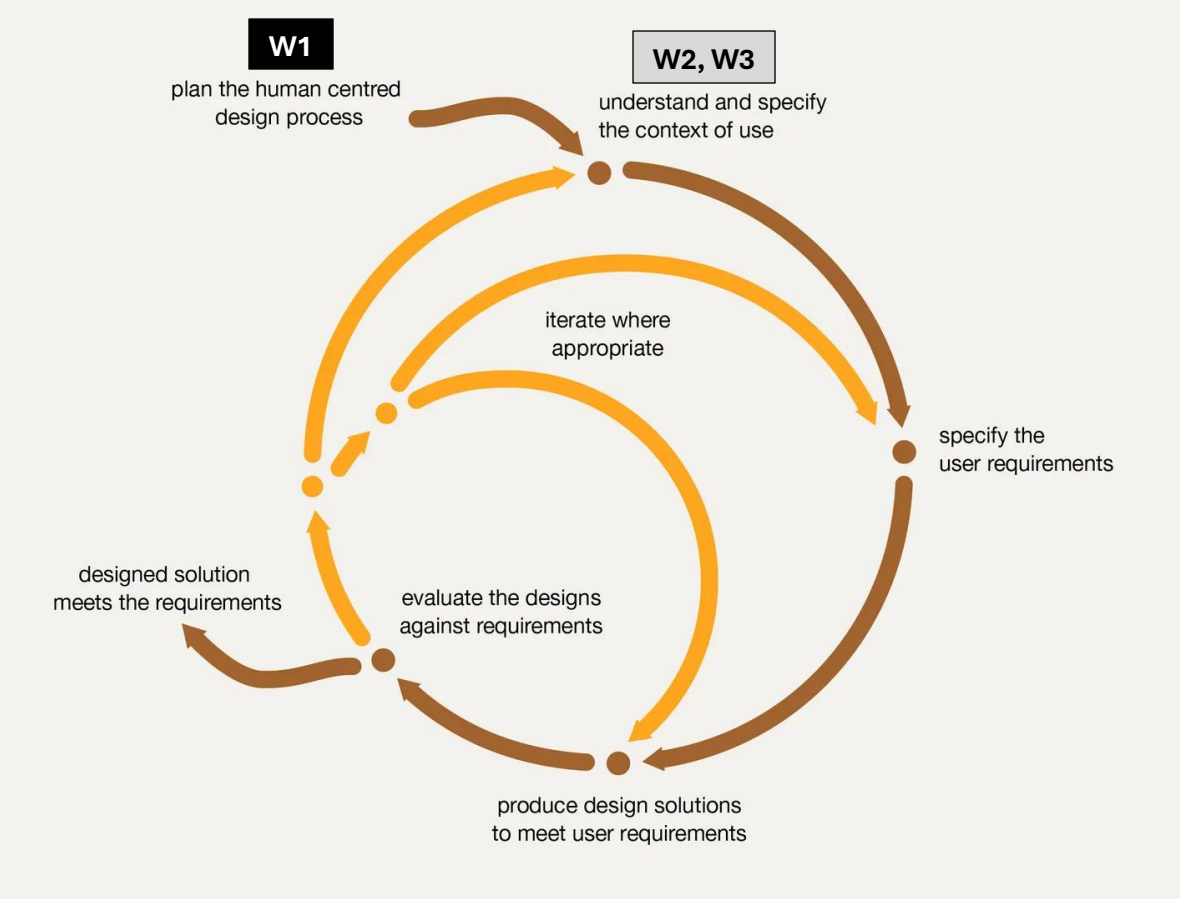


HCD Lifecycle and HCI Lab Classes

W2, W3
Understand and specify context of use

- Analyse competitors and current practices
- Define users and context scenarios

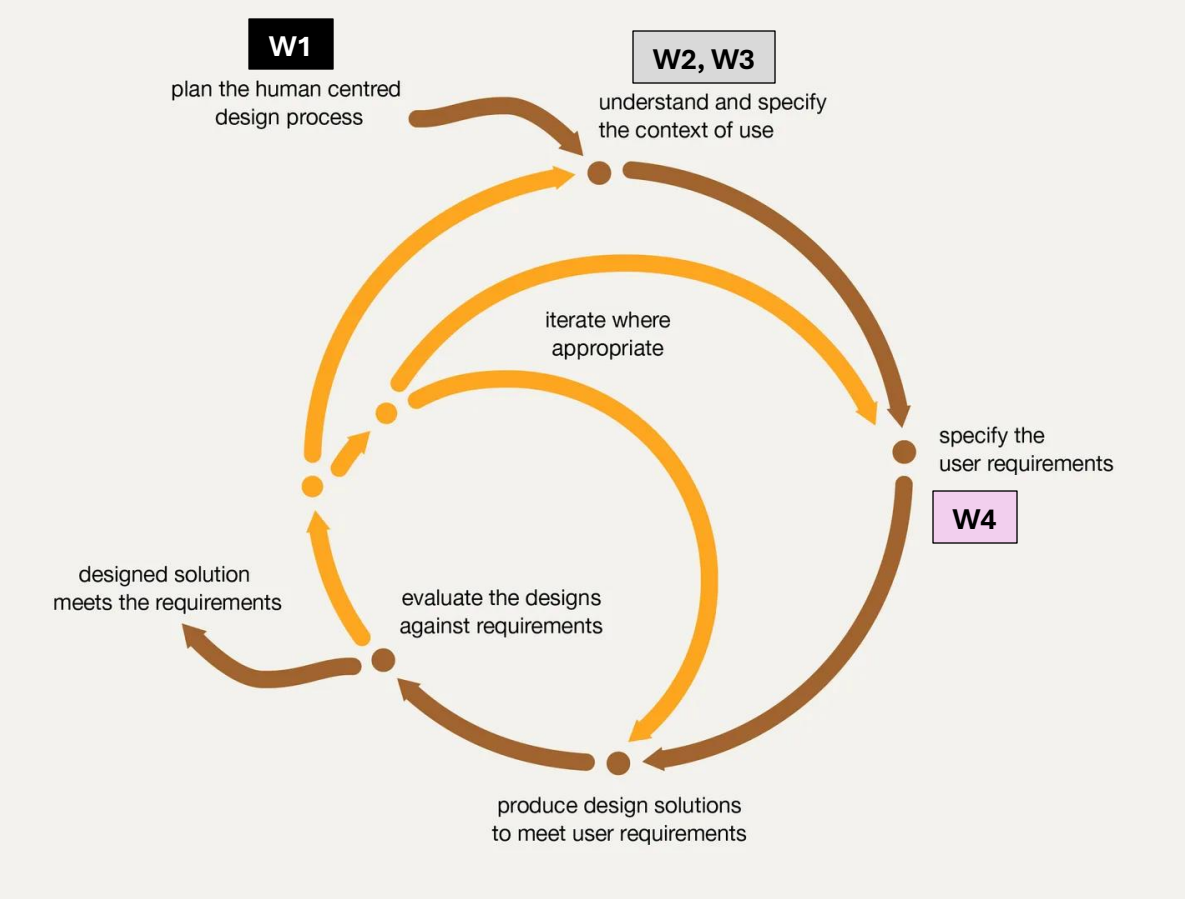
What is the problem? Who has it? How is the current status? Who are the competitors? How do they approach the problem? Can we do better?



HCD Lifecycle and HCI Lab Classes

W4
Requirement definition

So, what will our system need to do?

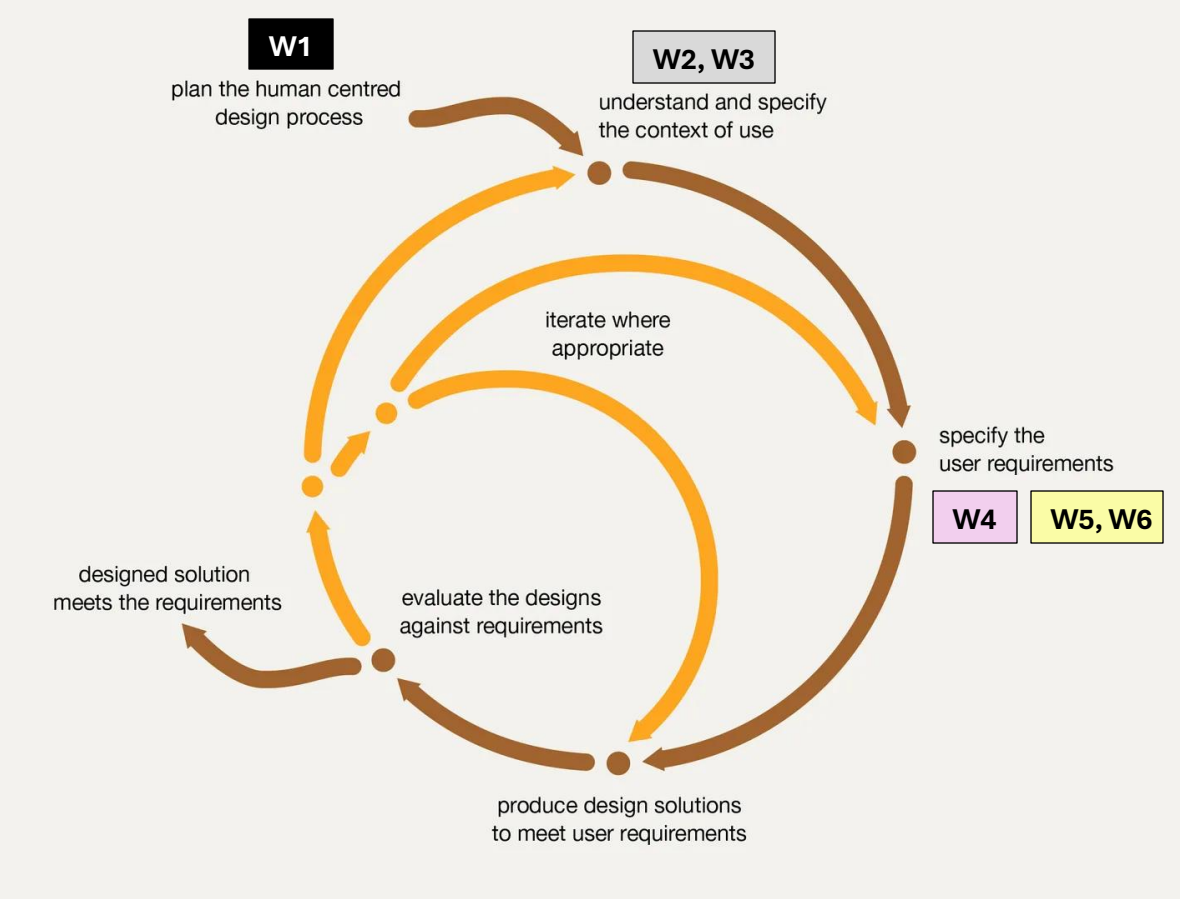


HCD Lifecycle and HCI Lab Classes

W5, W6

First assignment

- Present problem, competitor analysis, contexts of use and requirements



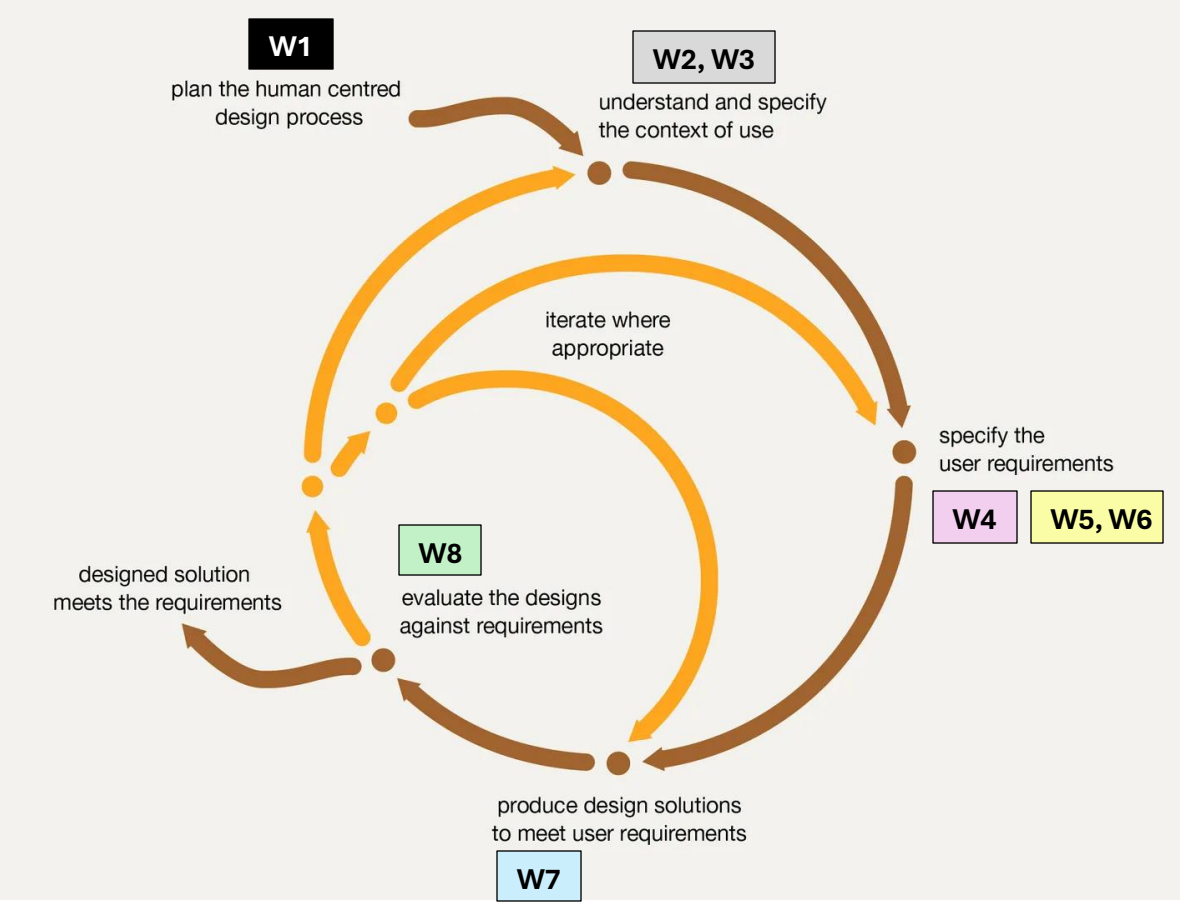
HCD Lifecycle and HCI Lab Classes

W7
Solution Design

- Make a lo-fi prototype of the interface

W8
Evaluate Design

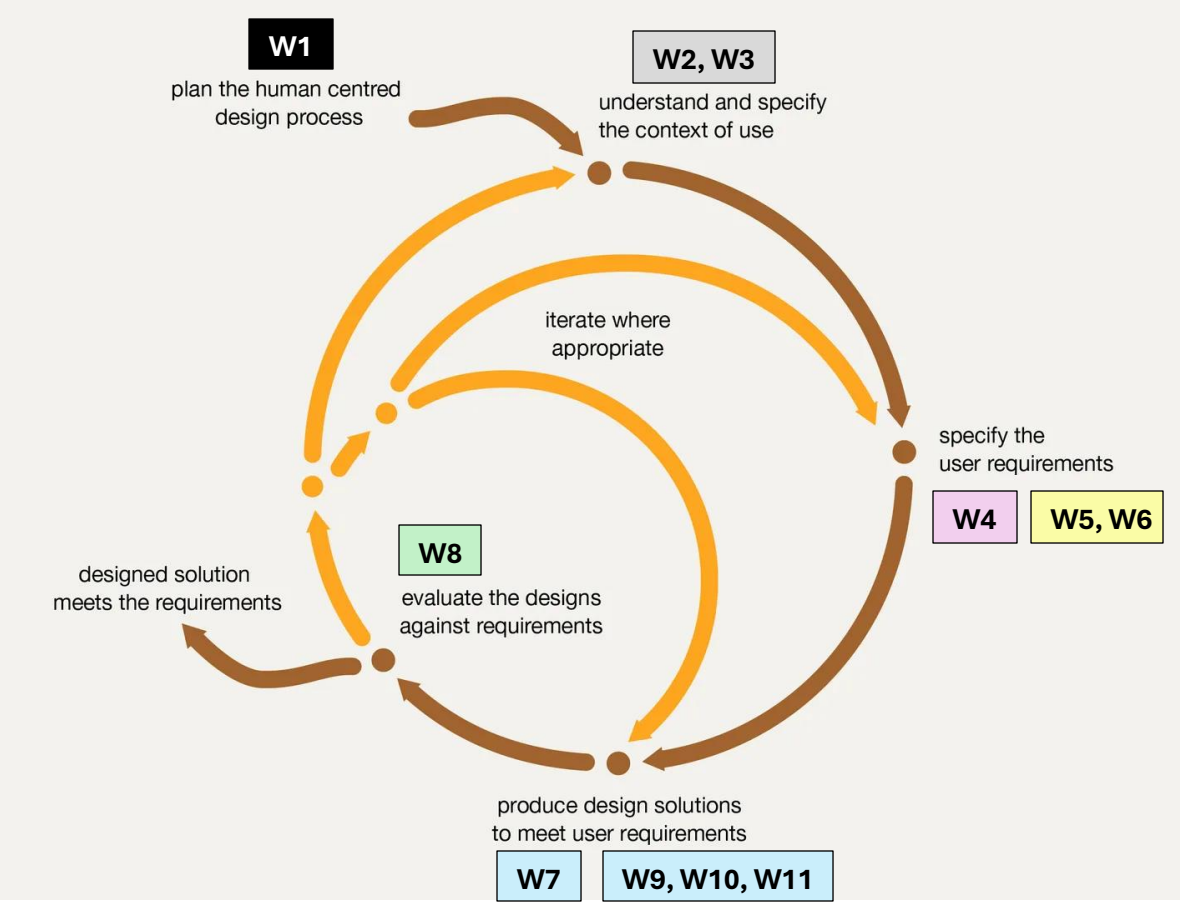
- Evaluate prototype in class



HCD Lifecycle and HCI Lab Classes

W9, W10, W11
Solution design

- Choose a framework and develop a functional prototype (interaction-wise)
- Backend not mandatory



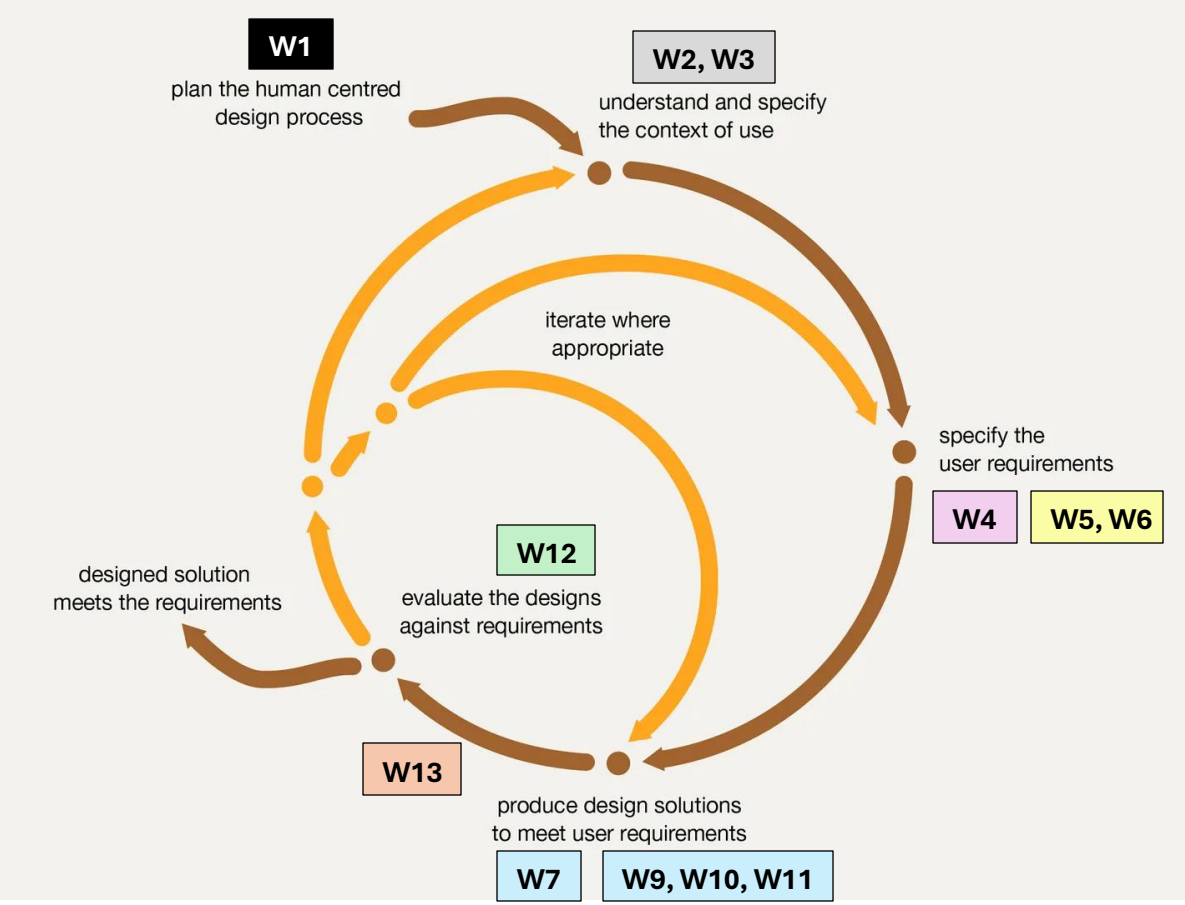
HCD Lifecycle and HCI Lab Classes

W12
Evaluate Desing

- Evaluate functional prototype in-class

W13
Refinement and Reporting

- Final Refinement, Additional Testing

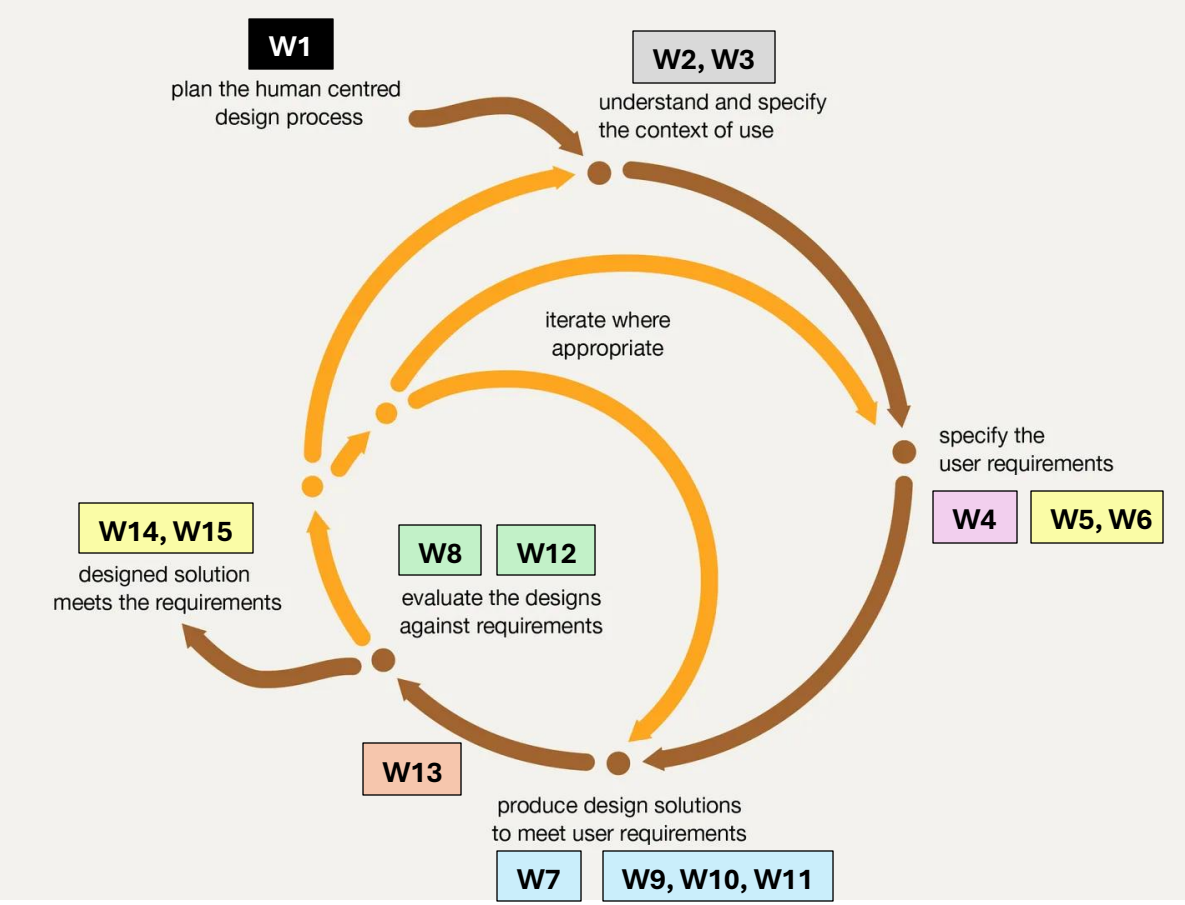


HCD Lifecycle and HCI Lab Classes

W14, W15

Second Assignment

Present the entire work, summarizing requirement stage for context and describing iterative design and testing



Assessment for the course

TP

- Exam (45%)
- Article Presentation (10%)

P

- 1st assignment (15%)
- 2nd assignment (30%)

Minimum mark in each component (TP / P): 7.5 / 20

Assignments

https://www.blinkshot.io/

Assignments

W5, W6 – Requirement Analysis (15%)

11/14 mar, 18/20 mar

Problem, competitors, challenges, users, scenarios, and requirements

In-class presentation
15 minutes

Deliverable: Presentation Slides + Current Stage of **Logbook**

Assignments

W14, W15 – Project Delivery (30%)

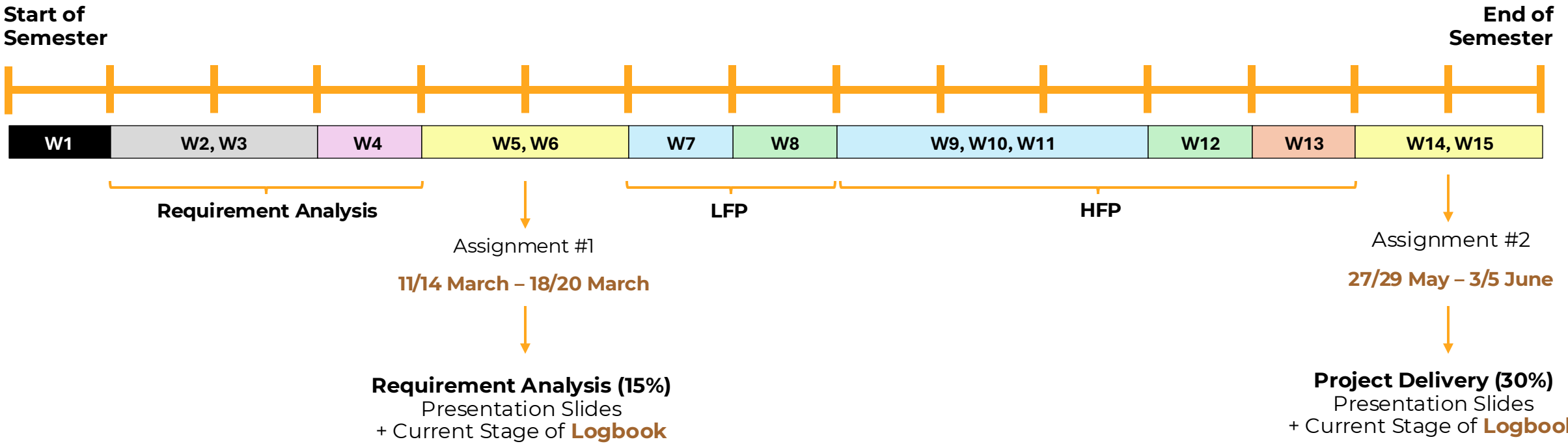
27/29 may, 3/5 jun

Summary of requirements, as context, followed by description of iterative design and development and critical discussion

In-class presentation
15 minutes

Deliverable: Presentation Slides + **Logbook**

Assignments – Summary Timeline



Materials

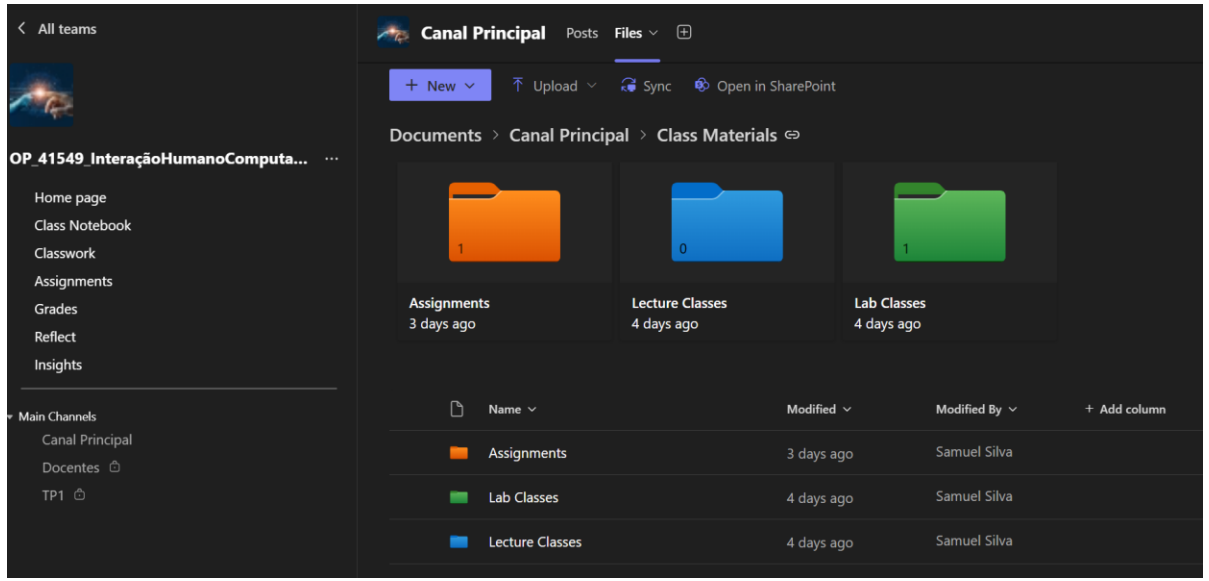
Teams Group (OP_41549_InteraçãoHumanoComputador)

Main Channel (Canal Principal)

Files -> Class Materials -> Folder **Lab Classes**

Direct Link: **Lab Classes**

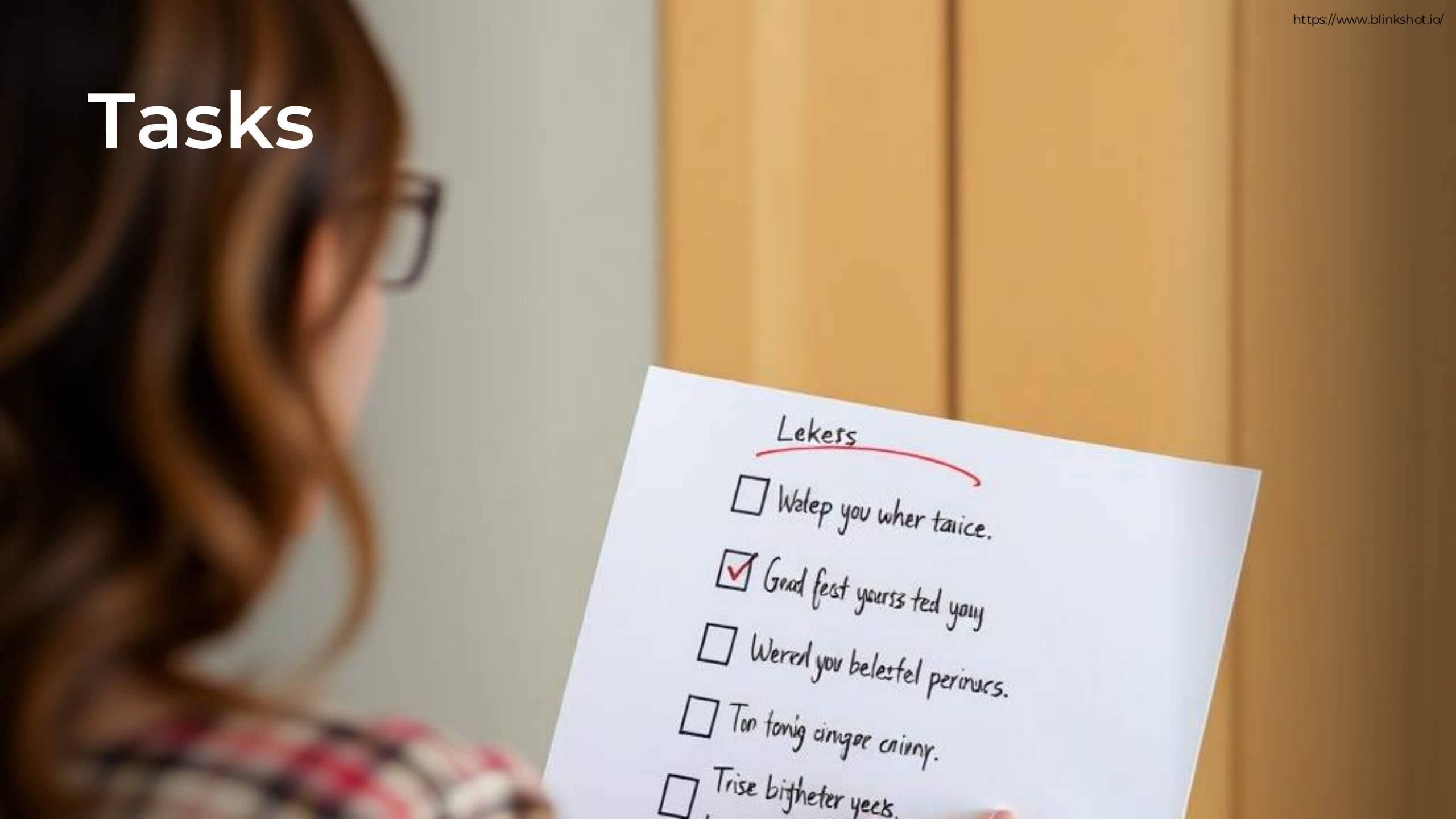
Assignment specific materials will also be made available in the assignment module, in Teams



The Logbook

- An archive to gather everything you did during the course concerning your project
- In markdown format (.md), editable with vscode, obsidian, etc., supported in github
- A **template** of the logbook is **being prepared** to help you

Tasks



Let’s get working…

- Form groups of **3 students**
- Discuss an idea for the project
- **Pitch it to the teacher** to assess adequacy

Tasks to complete until next class...

Discuss among the group members and choose your project idea

Think about a small sentence that summarizes the problem and what you will provide

Hint: do it without mentioning a single piece of technology

Registering the group and idea

Access the form below and insert the requested information **only if your idea has been approved by the lab teacher**

https://forms.gle/5K83jg7cwZi5kJh17