

About the Course Projects

Human Computer Interaction

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The Exam (Recap)

1. Written test [40%: 13 points, minimum 7]
 - Design methods, guidelines, exercises, ...
 - No coding
 - Four open questions, 1 hour
 2. Evaluation of the projects (by group) [60%: 20 points]
 - Deliverables
 - Prototype (source) code
 - Oral discussion
- Both parts will be in presence and must be passed **in the same academic year**
 - in any order

Course Projects: Goals

- Semester-long group projects
- Goals:
 - to give hands-on experience with the modern human-centered design process described during the course
 - to serve a chosen target population
 - eventually building an interacting prototype, using Web technologies
- Projects will be built step-by-step and mostly carried on during the lab hours
- Deliverables corresponding to the completion of some process steps

Projects Overview

- Groups of 4 students
- Topic proposed by the group
 - predefined goals and constraints
- Intermediate “deliverables”
 - evaluated at the exam
 - feedback from teachers during the semester
- Final presentation (at the exam)
 - demo, oral presentation, discussion
 - all students present, and presenting
- Evaluation criteria
 - effort invested in the project activity
 - originality, complexity, and richness of the solution
 - methodological and technical correctness
 - completeness and communication quality of the deliverables
 - presentation and oral discussion
 - individual contribution

Team Composition

- Teams of 4
 - it is students' responsibility to form teams
 - teachers may help, but not automatically assign anyone
 - students can use Slack and the class/lab hours for shopping for teams/members
- Teams cannot be changed during the semester
- Each team will work on their own GitHub repository(-ies)
 - we will create and assign private repositories to each group

What Is a Project?

- A **prototype** application (choose your own!)
 - at the end, realized with Web technologies
- It is a prototype: it can mimic a mobile app, a wearable app, etc.
- Constraints
 - Free to choose the target user population, the domain, and one or more target devices
 - Projects should be something suitable showing off to your extended family (PG-rated)

Milestones and Deliverables

- Milestones are intermediate check-points in the creation of the project
 - with *strict deadlines*
- Milestones will be evaluated as part of the exam (and at the exam)
- Milestones will follow the lab contents
 - students may ask for preliminary advice during the related lab hours
- Milestones will be Markdown documents (.md) in the group repository and they will follow a template provided by the teachers
- Evaluation and feedback
 - Feedback given on GitHub (as a GH issue), after each deadline
 - Discussion time on the following week (e.g., in the lab, during office hours, ...)

Milestones and Deliverables

- Milestone 1: Week 5
 - Project Description and Needfinding
- Milestone 2: Week 8
 - Storyboard, Paper Prototype, and Heuristic Evaluation
- Milestone 3: Week 10
 - Wireframe and Design Critique
- Milestone 4: One week before the Exam
 - User Evaluation

Coding will start here, not before!

■ M1	Updated M1 based on specific feedback
■ M2	Adjusted M2 based on teacher's feedback
■ M3	Fixed milestone 3 after feedback
■ M4	Added M4
📄 .gitignore	Progress on milestone 2

Final Prototype: Technologies

public	Progress on front end plan
src	Fixed issues after user testing
.gitignore	Added pre-commit hook for formatting
README.md	Fixed issues after user testing
package.json	Progress on front end plan

- Web technologies (front-end): HTML5, CSS, JS, ...
- Server-side: should connect to existing APIs (e.g., Firebase) and/or deploy your own server (e.g., Express) and database, with *realistic* data
- Use the web development skills that you acquired in the past
- Follow the best practices of web development and software engineering

Project Completion Level

- The realized web application *must* be a **high-fidelity interactive prototype**, not a final “product.”
- Therefore, the application is not required to (fully) implement standard (yet important) features, such as sign-up, sign-in, ...
 - Assume that your user is *already* registered and signed in

Introducing... the Milestone Zero

- Submit group composition and project idea
 - Project title
 - Project idea (with some details)
 - 4 persons, for each:
 - ID (matricola), Name, GitHub username, e-mail
 - Preferred slot in LABINF
- Submission link (Google Form):
 - <https://forms.gle/goEEWSq7ZGHiu3Xd7>

Deadline:
October 7, 2021
End of Day (EoD)

Project Topic

- In the first step, we still **do not know** the actual user needs...
- ... that is why *needfinding* is required
- Think about the project topic in terms of:
 - What is the **domain** of the project?
 - Which **target** population is selected?
 - In which **context** could we ‘help’? (broad initial hypotheses)
- Do **not** write the specific needs, nor functionalities, nor tasks, nor technologies, ...
 - they will be for the next Milestones
- Summarize the topic by following this structure:
 - *We would like to SUPPORT/HELP/ENHANCE/... <target population> TO/WHILE/IN/... <general activity/topic>*

Sample Project: Cooking@Home

- **Domain:** at-my-home cooking services by uber-like cooks
- **Target** population: users that will go to other users' homes and cook for them
- Possible **contexts:** reservations and user-cook matching, AND/OR selecting recipes and procuring ingredients, AND/OR ...
- **NOT:**
 - an app for looking up recipes, a social network of cooks, an intelligent brewing machine for personalized coffee making, ...
 - selecting the grams needed for each ingredients, filtering recipes according to their costs, buying ingredients online, ...

Sample Project: Finalizing the Details

- Project Title: Cooking@Home
- Project Idea:
 - We would like to support chefs that will cook at other people's homes to better manage and deal with people needs and expectations
- Target population: users that will go to other users' homes and cook for them, be they professional chefs or not
- General activity:
 - Improving at-my-home cooking services by uber-like cooks
 - Managing users' expectations and needs in one or more moments: reservations and user-cook matching, AND/OR recipes and ingredients selections, AND/OR...

Other Examples

Further examples of projects, from past editions of the course:

<https://github.com/polito-hci-2021/project-ideas-examples>

This document provides a few reasoned examples of *project topics* for the HCI course at Politecnico di Torino, to help students better structure their own proposals for **Milestone 0**.

Projects' ideas proposed in the 2019 and 2020 edition of the course served as an inspiration for the examples below. Some examples present already good proposals (marked with *OK*), with a few opportunities to improvement, while others (*REFINE*) start from problematic proposals and show how to re-work them.

Please, notice that this is provided mainly as a guide for reasoning on different aspects of a project proposal, according to the template provided during the course.

Example 1 [OK]

Idea: We would like to support waiters to find an on-call job.

Target population: Users that want propose themselves for an on-call contract in a restaurant/pub/cafe.

General activity: Speed up users' job searching, putting in contact the restaurant owner with the potential waiters, add preferences and personal experience.

👍 **Why it is good** 👍: The target population is quite well selected and relatively easy to reach out. The idea is quite specific and there is space for extracting various needs. The possibilities for general activities are wide enough and well linked with the idea.

🔥 **What can be improved** 🔥: The idea and the general activities can be better explored; the exploration can go



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