

Project 1 - Establish requirements (100 points + up to 7 **13** bonus points)

This years project is to design an application which supports students in studying during isolation. The project is divided into three parts: Requirements, Prototyping, and Evaluation, followed by a presentation of your project. Your project will have empirically established features, its design will be based on in depth exploration and its functionality will be validated.

Your application should be a tool which either supports running a full virtual **lecture course**, or which addresses an aspect required for a virtual lecture. We explicitly encourage also considering the non-formal aspects of a lecture (getting to know your peers, learning about research labs at university, learning things not explicitly course related etc.). Your application should be used by multiple users together. Purely private activities (e.g.: Sleep Tracking, Personal Wellness) are out of scope.

The specific application you will chose should emerge from the exercises you will do over the course of the next two weeks.

The first phase is to establish your projects requirements.

Please keep all of your answers short and to the point, write them as concisely as possible. Please read the instructions for submission at the end of this exercises.

If you have questions regarding the tasks, please ask your tutor.

Groups of 2: For groups that have only 2 members, for some tasks a reduced amount of work is indicated with *Groups of 2:* as an identifier. This does not apply for groups that have three members.

Task 1: Who are the users? (20 points)

- a. Identify as many stakeholders as possible. **SUBMIT** a list of **at least 4** stakeholders. For each stakeholder, state if they are a user, and explain in one sentence what it is that makes them a stakeholder. (up to 8 points)
- b. Create and **SUBMIT**: three personas based on at least two types of stakeholder (3 * 4 points)
Groups of 2: Create two personas for at least two types of stakeholder

Task 2: Understanding the user (59 points + up to 7 bonus points)

- a. Observe the users. While we are currently not engaging with each other in person, we are interacting on Discord, Zoom, and Moodle. Many of these interactions leave traces. Take some time to observe how people are using these platforms. What types of behaviors do you observe? What happens when things work well? What problems do you notice? When do people engage?
 - i Pretend that the only thing you know about this course is what you can read on Moodle and Discord. Pretend you know nothing else about the course. What do you observe? **SUBMIT** at least six descriptions of things you learned from how people engage with Moodle and Discord. For each item, explain how you learned this and provide a screenshot supporting your explanation.
*Groups of 2: Provide 4 things you learned + explanation + screenshot (1.5 * 6 points)*
 - ii You do, however, know more about the course. For example, you have attended both live and pre-recorded Zoom sessions, and observed how people engage there. Based on other observations, your personal experience, the lectures, and any other form of non-text interaction, what else have you learned which is relevant? **SUBMIT** three descriptions of things you learned which were not apparent from text alone. *Groups of 2: Provide 2 things you learned (2 * 3 points)*

- iii Consider how the two previous tasks are different from what you learned about user observations in lecture 3. What are the drawbacks of the methods suggested in the two previous questions? What do you not have access to? What remains hidden? **SUBMIT** three descriptions of problems with how you collected information in the previous two sub-tasks, and provide three things which remain hidden (a sentence for each is enough) (2 * 3 points).
- b. Prepare interview questions. Based on your observations, while especially considering the identified limitations, prepare questions for an interview. Use this interview to complement and extend what you learned through observation
 - i **SUBMIT** a list of demographic information you will collect with each interview. Provide at least one reason why this information is important. (4 points)
 - ii **SUBMIT** eight questions which will guide your semi-structured interview. Make sure that they are questions which enable discussion (so never something which can be answered with yes or no). For each question specify what phase of the interview it will be asked in. (2 * 8 points)
- c. Conduct interviews with at least 3 stake-holders, each interview should take about 15 minutes.
Groups of 2: At least 2 stake-holders
 - i. **SUBMIT** a list of participants, where each participant is given a pseudonym and present demographic data. (3 points.)
 - ii. **SUBMIT** a summary of at least 5 key findings from all interviews (state for each finding which participant has raised this point). (5 * 3 points.)
Groups of 2: Summarize at least 4 key findings.
 - iii. (Bonus: up to 4 points. 1 for each additional interviewee and 2 points for interviewee who is not a student in the HCI class.)
- d. Be interviewed. Each student should participate in at least one interview (no points, but required for submission. Bonus: Up to 3 points, one per additional interview).
 - i. **SUBMIT** the group number of each person that interviewed someone from your group.
 - ii. Reflect on your experience of being interviewed. Did you enjoy it? Would you do things differently? Which questions did you feel comfortable with? Which were hard to respond to? (No need to submit anything in writing, but do think about it when being interviewed).

Task 3: Extracting Requirements (16 points) + 5 Bonus Points

Based on the interviews, consider how specifically your project will support students in studying during isolation (you may change this in your next assignment)

- a. Show how your project supports studying in isolation by means of two scenarios, each involving one persona created in task 1. **SUBMIT** these scenarios (at least 200 words, but no more than 500 words each). (2 * 4 points)
- b. For each scenario perform hierarchical task analysis (HTA). **SUBMIT** the result (2 * 4 points).

Task 4: Formulate requirements (15 points)

Provide a list of requirements as described below (all three points should be addressed in a single list).

- a. Using your gathered data and your analysis, identify and **SUBMIT** at least 10 requirements.
Groups of 2: identify at least 8 requirements. (10 points)

- b. For each requirement also **SUBMIT** what type it is (*functional, data, environmental, and user characteristics*). There should be at least one from each category. (3 points)
- c. For each requirement also **SUBMIT** how important it is *must-have, should-have* and *nice-to-have* (2 points)
- d. For each requirement, **SUBMIT** an explanation how it is developed from the previous exercises (5 bonus points)

Instructions for submissions:

- You can upload your answers multiple times until December, 2^{ed} 2020 - 11:55 pm. The most recent version will count. You cannot change your answer after December, 2^{ed} 2020 - 11:55 pm.
- If one of your group members are not contributing to the exercises, you must inform your tutor.
- This is a creative exercise. Innovative ideas and solutions are rewarded in grading.
- Please put your answer sheet and all the other relevant documents in one archive file (zip) and name your submissions according to the following scheme:
HCI_exercise_XX_GGGG.zip where XX = exercise number (e.g. 03) and GGGG = group number (e.g. G001).