

## Project 1 - Establish requirements (100 points)

This project task is the first of three project tasks that together take you through one iteration of the complete design process. The overall goal is to design a companion mobile app for the program "Campus in Bewegung - Fitness-Trail" to help all people on the university campus to integrate exercise, fun and fitness during the day (If you are not familiar with this program, check <https://www.uni-saarland.de/en/institution/sports/campus-in-bewegung-fitness-trail.html>).

For instance, the app should support (but is not limited to) the following areas:

- Helping users to navigate through the fitness trail and give recommendations which exercises to do next at which site.
- Helping users by presenting the correct way of doing exercises in different sites.
- Allowing users to track their physical activity and progress.
- Sharing user's progress with others.

(Note: Currently, there exists an application named "Hochschulsport-App", which covers all the sport programs in the university. Your task is to design an application specifically for the fitness trail, more dynamic and attractive.)

**Please keep all of your answers short and on point, and write them in concise bullet points. 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.

### Tasks:

1. To further the understanding of the problem space, observe people who are doing exercises on the fitness trail and other sports options on the campus. (6 \* 4 = 24 points)
  - a. To get a representative image of sport habits and different types of users, observe people in different contexts (e.g. individuals, groups/friends, students/employee, ...).
  - b. Observe for 60 minutes (about 6 people/groups - at least 3 people/groups on the fitness trail - 10 minutes each).  
*Groups of 2: Observe for 40 minutes (about 4 people/groups - at least 2 people/groups on the fitness trail - 10 minutes each).*
  - c. Take notes about your observations in terms of characteristics and capabilities of the users, what they are trying to achieve, how they do it currently, and what problems they encounter.
  - d. Hand in a short summary of your observations (about 15 sentences).
  - e. You should have consent of the people you are observing. Therefore, ask your friends or colleagues for their consent to observe them or ask people before observing.
2. Prepare interview questions to further your understanding of the behaviour you observed above. (8 points)
  - a. Based on your observation identify relevant questions. Amongst other questions, try to figure out why some people didn't use the fitness trail so far and how an application can help them and find out how an application can support those who are already using the fitness trail.

- b. Prepare a semi-structured interview.
  - c. An interview should take about 15 minutes.
  - d. Run a pilot interview with a person who is not part of your project team, to test your interview questions and identify potential points for improvement.
  - e. Hand in your final interview questions.
3. Conduct interviews ( $3 * 6 = 18$  points)
- a. Interview at least 5 people with different contexts (individuals, groups, ...)  
*Groups of 2: Interview at least 4 people.*
  - b. An interview should take about 15 minutes.
  - c. Summarise at least 5 key findings from all interviews (state for each finding which participant has raised this point, by adding anonymous participant).  
*Groups of 2: Summarise at least 4 key findings.*
4. Research existing approaches ( $3 * 2 = 6$  points)
- a. Find 2 existing apps that support fitness training.
  - b. State what problem they try to solve
  - c. State if/how these problems relate to the behaviour you observed.
5. Identify stakeholders ( $4 + 2 * 4 = 12$  points)
- a. State all main stakeholders
  - b. Create two persona descriptions for two selected stakeholders
6. Create scenarios ( $2 * 4 = 8$  points)
- a. Create two short scenarios each involving one persona created above
7. Perform hierarchical task analysis (HTA) (6 points)
- a. Perform HTA for the task of doing all the exercises on the fitness trail. Start from the person who is already on the campus.
8. Create a use case (6 points)
- a. Create a use case for the same task as above ( doing all the exercises on the fitness trail ).
9. Identify requirements ( $10 * 1 + 2 = 12$  points)
- a. Using your gathered data and your analysis, identify at least 10 requirements under the headings *functional*, *data*, *environmental*, and *user characteristics*, there should be at least one from each category.  
*Groups of 2: identify at least 8 requirements.*
  - b. Prioritize requirements according to importance for user experience and categories: *must-have*, *should-have* and *nice-to-have*

## Instructions for submissions:

- You can upload your answers multiple times until December, 20<sup>th</sup> 2018 - 12pm. The most recent version will count. You cannot change your answer after December, 20<sup>th</sup> 2018 - 12pm.
- 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\_GGG.zip where XX = exercise number (e.g. 03) and GGG = group number (e.g. M01).

Hand-in until December, 20<sup>th</sup> 2018 - 12pm as PDF via Moodle (<https://hci-lecture.cs.uni-saarland.de>)