



## Assignment 2

Submission A Sunday, April 22nd, 11:59pm CEST via email to [sarah.prange@hm.edu](mailto:sarah.prange@hm.edu)  
Submission B Sunday, May 6th, 11:59pm CEST via email to [sarah.prange@hm.edu](mailto:sarah.prange@hm.edu)

### Exercise 1-1 Reading task

Please read the following paper:

[It's a Hard Lock Life: A Field Study of Smartphone \(Un\)Locking Behavior and Risk Perception](https://www.usenix.org/system/files/conference/soups2014/soups14-paper-harbach.pdf)

(<https://www.usenix.org/system/files/conference/soups2014/soups14-paper-harbach.pdf>)

### Exercise 1-2 Creating a novel authentication concept

In this exercise, please form groups of two students. Your task is to come up with a novel authentication concept based on a problem analysis and requirements engineering. Your authentication concept can be targeted either at a mobile context, a web context, or an Internet-of-Things context (that allows for a combination with a mobile device / the web).

a) Week 1 – Understanding (Submission A):

Applying one of the techniques you learned in the lecture (observations, interviews, surveys, etc.), identify a **specific problem of common authentication mechanisms**. This can be a usability problem, a security problem or a combination of both. In addition, identify a particular **target group** (kids, postmen, salesmen, factory workers, etc.) and, if applicable, one or several potential **situations**, in which your target users need to authenticate (e.g., access to a certain room, a web service, an (IoT) device, a vehicle, etc.).

Summarize your findings in the form of one or several personas and one or several scenarios and submit them until 22<sup>nd</sup> April 2018 via email (see below).

b) Week 2 – Focus Group:

With your personas and scenarios, conduct a focus group (4-6 people) with the goal of coming up with ideas for novel authentication concepts. Afterwards, summarize the findings from your focus group, derive novel authentication concepts, and assess these concepts regarding novelty and feasibility.

c) Week 3 – Concept:

Select 2 concepts (one concept per person) and create a sketch / paper prototype that you can present in the lecture on 8<sup>th</sup> May 2018.

Submit a 250 word description and images of each concept as well as 2-3 slides that help you present the concept in class until 6<sup>th</sup> May 2018 via email (see below)

### Submissions:

Submit your solution as a PDF, named "assignment2{a|b}\_<last\_name\_teammember1>\_

<last\_name\_teammember2>.pdf through email to [sarah.prange@hm.edu](mailto:sarah.prange@hm.edu) with subject "Assignment 2{a|b}".

The submission deadlines are Sunday, April 22<sup>nd</sup> and May 6th, 11:59pm CEST.