Exercise 1 - Midas Touch (2 points)

Instead of using pointing devices, such as a mouse, one could imagine using the eye gaze to move the pointer directly to where the user is looking. However, this might also cause issues. Inform yourself on the so called *midas touch problem* and explain it briefly. Propose an approach to overcome the *midas touch problem*, without switching the interface completely.

Exercise 2 - Desktop WIMP interfaces (3 points)

Have a look at your favorite desktop operating system that uses WIMP. Find and explain 3 examples of good or bad usability regarding the use of pointing.

Exercise 3 - Fat finger problem (1 + 2 + 2 = 5 points)

1. Briefly explain what is the *fat finger problem* relative to a multi-touch screen. (3 sentences)
2. Explain a real scenario where you faced the *fat finger problem* in a multi-touch device. (3 sentences)
3. Watch the video "Precise Selection Techniques for Multi-Touch Screens" on YouTube (`https://youtu.be/EIPWkh0xaG8`). Explain how you can adapt one of the solutions from the video to resolve the above issue. (3 sentences)

Exercise 4 - Mobile interface (4 * 0.5= 2 points)

State and explain four challenges that you face when you design a mobile interface.

Exercise 5 - Desk-lamp interface (4 points)

Consider a simple desk lamp. Assume it has only an on/off-switch. This button is now replaced with an LCD screen. Which additional features (name and describe at least two) are now possible? What would be gained and lost from changing the interface in this way? Name at least two aspects. (Hint: it may be helpful to recall the usability principles)

Instructions for submissions:

- You can upload your answers multiple times until November, 29^{th} 2018 - 12pm (noon). The most recent version will count. You cannot change your answer after November, 29^{th} 2018 - 12pm.
- If one of your group members are not contributing to the exercises, you must inform your tutor.
- Please name your submissions according to the following scheme:
  HCI_exercise_XX_GGG.pdf
  XX = exercise number (e.g. 03)
  GGG = group number (e.g. M01)

Human-Computer Interaction

Exercise sheet 4

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Hand-in until November, 29^{th} 2018 - 12pm as PDF via Moodle (https://hci-lecture.cs.uni-saarland.de)