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No homework

Exercise Sheet 13 in

Scientific and Technical English

WiSe 2026/27

The exercise sheets consist of in-class exercises and homework. The in-class exercises take place during the second half of the lecture time slots. The homework, which is optional and ungraded, can be submitted via the "Homework" section in Moodle. The homework is subject to peer review.

Unless indicated otherwise, generative artificial intelligence assistants such as ChatGPT may be used, as long as you acknowledge how you use them as specified by the Institute's policy on plagiarism.[1] However, you may not use such tools to generate peer reviews for you. In addition, we strongly recommend that you do not use them to generate entire solutions, since that would defeat the purpose of the exercises.

In-class exercise 13-1 ***Grasping `grep`*** The `grep` tool is a command-line program that is available on Linux and similar systems. Make yourself familiar with the manual page, abbreviated as *man page*, for `grep`. You can access the man page by typing `man grep` in your terminal if you are working on a Linux-like system or by visiting `https://man7.org/linux/man-pages/man1/grep.1.html`.

Write a brief tutorial for `grep` of 200 to 400 words where you describe its purpose and explain its basic usage. In particular, explain how to search multiple files by using file-name patterns (such as `grep hello *.txt`) and the `-r` option.

In-class exercise 13-2 ***Javadoc for a Number Queue Class*** The `WaitingList` class is a Java implementation of a number queue system that can be used to manage people who are waiting for their turn. Write appropriate Javadoc comments for all public methods of the class and for the class itself. Make sure to include relevant `@` tags.

```
1 public class WaitingList {
2     private List<Integer> items;
3     private Random random;
4
5     public WaitingList() {
6         this.items = new ArrayList<>();
```

[1] `https://www.medien.ifi.lmu.de/lehre/Plagiate-IfI.pdf`

```
7           this.random = new Random();
8       }
9
10      public int drawNumber() {
11          int number;
12          do {
13              number = random.nextInt(1000) + 1;
14          } while (items.contains(number));
15
16          items.add(number);
17          return number;
18      }
19
20      public Integer callNextNumber() {
21          if (items.isEmpty()) {
22              return null;
23          }
24          return items.remove(0);
25      }
26
27      public void addNumber(int number) {
28          if (items.contains(number)) {
29              throw new IllegalArgumentException("Number "
30                      + number + " is already in the waiting list");
31          }
32          items.add(number);
33      }
34  }
35    }
```

In-class exercise 13-3 ***Getting Started with Software*** Choose some familiar piece of software (e.g., your favorite Python library). Write a brief getting-started guide of at most 300 words where you explain how to install the software. Include a description of how to create a "hello world" example and, if the word count allows for it, some slightly more complicated examples. Use pictures (e.g., screenshots, diagrams) where appropriate.