

## Exercise 4: Programming Distributed Systems (SS 2018)

- Prepare this sheet for the exercise on Thursday, June 7.

### 1 Registers

To better understand the differences between the registers discussed in the lecture, try to find example executions that show the differences:

- a) Give an execution that is not allowed for a safe register.
- b) Give an execution that is allowed for a safe register but not for a regular register.
- c) Give an execution that is allowed for a regular register but not for an atomic register.

### 2 Raft

Answer questions 3, 4, 5, and 6 of the Raft quiz at <https://ramcloud.stanford.edu/~ongaro/userstudy/quizzes.html>.

To learn about the details of the Raft algorithm, read the Raft paper “In Search of an Understandable Consensus Algorithm (Extended Version)” by Diego Ongaro and John Ousterhout (<https://ramcloud.stanford.edu/raft.pdf>). You can also watch the video at <https://youtu.be/YbZ3zDzDnrw>.