Peer reviewing reports and theses
Why is it important to peer review (well)?

- Learn how to critically evaluate others’ work
- By reviewing other work, you learn how to criticize your own work
  - To be able to check your reports or thesis with the eye of an opponent
  - Teaches how to find issues that are otherwise hard to detect when writing report or a thesis yourself
Writing a Peer Review

- Peer Review goal **IS NOT** to find typos
  - a. Author can just use Grammarly :)
- Review should usually consist of two main parts:
  - a. **General opinion of the whole work**
    - Summarizing good and weak parts of the thesis
    - Not just weaknesses of the work!
    - Suggesting improvements
  - b. **Set of notes and questions**
    - May be left as inline-comments directly into the document
What aspects should be kept in mind when reading the work

1. Is the central goal of the work defined clearly?
2. Is the work logically structured?
3. Is the Author's reasoning understandable?
4. Is the reader expected to have too much prior knowledge?
5. Are the results of the work clearly presented?
6. Is the document readable and well formatted?
Goal of the Work is well defined?

- Each written text should have a specific purpose!
- After reading the work, can you answer the following questions?
  - Are the goals set reasonable and realistic?
  - Were the goals achieved?
    - Or is it augmented as to why these goals are unachievable?
Logical structure of the work

- Is it clear, why should anyone read this work? What is the motivation for the reader
- Does it have a specific goal set at the beginning of the work
  - What is to be achieved?
- Are the subheadings informative?
  - Does the table of contents alone provide an overview of the work?
- Are the different parts of the work in balance?
  - Are there any chapters or subsections that are significantly longer than the others?
- Are there any expected sections missing?
Is the background of the report sufficiently detailed

- Does the work require significant prior knowledge?
- Is this prior knowledge necessary to present the results of the work?
- Are the necessary definitions provided in the work?
- Does the paper refer to literature sources that cover the given subject area?
  - In sufficient amount?
- Has the author described previous approaches to solve the same/similar problem?
  - Has the author described how their approach is different from previous?
Are the results of the work clearly presented?

- Does the author describe all the important details?
  - Would you be able to repeat the experiments based only on the author's description?
  - Is the experiment design clearly described?
  - Is the hardware used in the experiment described?
  - Is exactly what and how is measured described?

- Does the author help the reader to interpret the results?
  - Are the conclusions drawn from the test results? Are they adequate?
  - Are the number of trials and measurement errors or variability reported?
  - Are the results visualized correctly?
  - Do the obtained results help to answer the research questions?
Is the Author's reasoning understandable

● Does the author provide explanations for the decisions taken?
  ○ Selection of related work
  ○ Chosen technologies
  ○ Architecture of the proposed solution
● Are the arguments presented clearly and correctly?
● Are the non-obvious statements of the author well argumented or covered by citations
● Were the research questions raised at the beginning of the work answered at the end of the work?
Readability of the document

● How many sentences are longer than 12 words?
  ○ Could they be presented in several different sentences?
  ○ How easy would it be to write these sentences grammatically correctly yourself?

● Is the text clinging too much to the details?
  ○ Can you restore a sentence after reading it without looking at it?

● Did the author avoid explaining details.
  ○ Are some important explanations skipped?
  ○ Are complex concepts left too unambiguous?

● Are the graphs and tables presented without explanations?
  ○ All tables and diagrams should be referred to inside the text.
  ○ Graphs and tables should be understandable by themselves.
Order of reviews

Each student reviews the reports of two of following students in this list:

1. Kairit - Estonia’s government cloud
2. Kert - Programming Models of Mobile Device-to-Device Computation Offloading
3. Kaarel - Detection of faults and code smells in Infrastructure as Code (IaC)
4. Siim-Morten - Variants of DevOps
5. Juan Carlos - Containers for High Performance Computing (HPC)
6. Rabindra - Predicting cloud resources demand
7. Artem - Data Analytics for smart-city data real-time visualization and analytics
8. Joonas - Monitoring failures in Smart-City data integrations
Next seminar tasks

- **15.12** - Send report for peer review directly to authors (and upload through courses.cs.ut.ee)
- **Review the reports of two other students**
  - ○ **22.12** - Submit peer reviews, share it with authors and upload to website
  - ○ Review should consists of two parts:
    i. General opinion of the report (~1 A4 page), as a separate document
    ii. Running comments, remarks and suggestions on what to improve - Notes inside the PDF form of the report under review
- **10.01.22** - Deadline for modified, final report