



Review report of a final thesis

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Student: Bc. David Straka
Thesis title: Decentralized and Open Architecture of a Reservation System
Branch / specialization: Web Engineering
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Evaluation criteria

1. Fulfillment of the assignment

1. assignment fulfilled
2. assignment fulfilled with minor objections
3. **assignment fulfilled with major objections**
4. assignment not fulfilled

The student completed the assignment with significant objections. The “decentralized” and “cloud-native” nature of the developed system is not clearly demonstrated.

2. Main written part

65/100 (D)

The thesis includes all key components and is well-organized into relevant chapters that logically follow and complement each other. It is easy to read and follow, with no significant grammatical or typographical issues identified.

However, there are a few issues:

- The “decentralized” and “cloud-native” nature of the developed system is not sufficiently explained.
- The manual testing (page 53, Section 4.4) is poorly presented; it appears to be very “ad hoc” and lacks a systematic approach.
- The background and selection of technologies are not well justified.
- The developed Booking protocol could be better illustrated, e.g. using a sequence diagram.

3. Non-written part, attachments

82/100 (B)

The student developed a functional prototype, including a client, backend, and an API. The selected technologies are suitable and adequate. However, the testing was executed manually without a systematic approach (e.g., unit tests or similar methods).

4. Evaluation of results, publication outputs and awards

78/100 (C)

The student developed a functional prototype of a booking system. Deploying it in production or publishing the results at a conference would require additional work.

The overall evaluation

72/100 (C)

The student developed a functional booking/reservation system. The thesis presents the development of the system well, covering analysis, design, implementation, and testing. However, the main issue with the thesis is that the “decentralized” and “cloud-native” nature of the system is not clearly evident.

Despite the issues mentioned in the previous sections, the student successfully applied the knowledge acquired during the studies and developed a functional prototype.

Considering the comments above, I recommend a grade of C.

Questions for the defense

- 1) Explain the “decentralized” nature of the developed system architecture.
- 2) Explain the “cloud-native” nature of the developed system.

Instructions

Fulfillment of the assignment

Assess whether the submitted FT defines the objectives sufficiently and in line with the assignment; whether the objectives are formulated correctly and fulfilled sufficiently. In the comment, specify the points of the assignment that have not been met, assess the severity, impact, and, if appropriate, also the cause of the deficiencies. If the assignment differs substantially from the standards for the FT or if the student has developed the FT beyond the assignment, describe the way it got reflected on the quality of the assignment's fulfilment and the way it affected your final evaluation.

Main written part

Evaluate whether the extent of the FT is adequate to its content and scope: are all the parts of the FT contentful and necessary? Next, consider whether the submitted FT is actually correct – are there factual errors or inaccuracies? Evaluate the logical structure of the FT, the thematic flow between chapters and whether the text is comprehensible to the reader. Assess whether the formal notations in the FT are used correctly. Assess the typographic and language aspects of the FT, follow the Dean's Directive No. 52/2021, Art. 3. Evaluate whether the relevant sources are properly used, quoted and cited. Verify that all quotes are properly distinguished from the results achieved in the FT, thus, that the citation ethics has not been violated and that the citations are complete and in accordance with citation practices and standards. Finally, evaluate whether the software and other copyrighted works have been used in accordance with their license terms.

Non-written part, attachments

Depending on the nature of the FT, comment on the non-written part of the thesis. For example: SW work – the overall quality of the program. Is the technology used (from the development to deployment) suitable and adequate? HW – functional sample. Evaluate the technology and tools used. Research and experimental work – repeatability of the experiment.

Evaluation of results, publication outputs and awards

Depending on the nature of the thesis, estimate whether the thesis results could be deployed in practice; alternatively, evaluate whether the results of the FT extend the already published/known results or whether they bring in completely new findings.

The overall evaluation

Summarize which of the aspects of the FT affected your grading process the most. The overall grade does not need to be an arithmetic mean (or other value) calculated from the evaluation in the previous criteria. Generally, a well-fulfilled assignment is assessed by grade A.