



Supervisor's statement of a final thesis

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Thesis title: GraphQL Architecture – a case study
Branch / specialization: Software 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

Assignment is fulfilled in all partial goals. The thesis required a lot of individual study and experiments, it was not a typical application development topic. So, the thesis topic may be regarded as a complex one.

2. Main written part

80_{/100} (B)

The text is well-structured and well-readable. There are no special requirements for the reader's knowledge, all is explained in the scope of the text. Even if the text is larger than expected some explanations are brief, it is mainly due to the complexity of the topic itself.

The most important part of the text is chapter 5. The first part of the chapter is based on existing Netflix TechBlog examples, where the author describes important concepts appropriately. The second part of this chapter then adds its own example based on the data that I provided to the author of the thesis. The concepts are well explained here, although the data structure the author was working on turned out to be quite simple during the course of the work.

The weakest part of the work is the evaluation of the technology. Some evaluation is done in the final chapter, but it is rather superficial.

3. Non-written part, attachments

90_{/100} (A)

Part of the work is the complete implementation of section 5.2 from the text of the work. We can say that this is a minimal but complete and functional example of the use of

GraphQL Federation technology.

The code is well structured and the entire repository is well documented. I really appreciate that the author of the single service designed and implemented it in the form of separate docker containers.

4. Evaluation of results, publication outputs and awards 90 /100 (A)

The result of the work can be understood as a comprehensive minimal and functional example of the use of GraphQL Federation technology. It can therefore serve as a tutorial for those interested in this technology.

5. Activity of the student

- [1] excellent activity
- [2] very good activity
- ▶ **[3] average activity**
- [4] weaker, but still sufficient activity
- [5] insufficient activity

The student's activity increased proportionally with the approaching end of the final work. The result is still very good.

6. Self-reliance of the student

- ▶ **[1] excellent self-reliance**
- [2] very good self-reliance
- [3] average self-reliance
- [4] weaker, but still sufficient self-reliance
- [5] insufficient self-reliance

The student worked very independently and managed to orientate himself in quite complex technology really well.

The overall evaluation 85 /100 (B)

It was a fairly complex topic that required a lot of independent study and experimentation. The resulting structure of the work is very good. It is a pity that it was not created earlier, there would have been more time for a better evaluation of the technology. The implementation of the example is very good, even though it was created at the last minute.

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.

Activity of the student

From your experience with the course of the work on the thesis and its outcome, review the student's activity while working on the thesis, his/her punctuality when meeting the deadlines and whether he/she consulted you as he/she went along and also, whether he/she was well prepared for these consultations.

Self-reliance of the student

From your experience with the course of the work on the thesis and its outcome, assess the student's ability to develop independent creative work.

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.