



Review report of a final thesis

Reviewer: Ing. Jan Trávníček, Ph.D.
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Thesis title: "Chronosite" – application for the timetable slots assigning
Branch / specialization: Software Engineering
Created on: 12 June 2023

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

As far as I can tell, the assignment was fulfilled. In more detail, the text fulfills the assignment from the software engineering point of view; not much has been done regarding the analysis of the algorithm, but not much was required here. The program itself seems to work, even though I had to fix some issues regarding paths to resources.

2. Main written part

85 /100 (B)

The text is written in English on a high level, without significant language issues. The text thoroughly describes the analysis, design, and implementation from the software engineering point of view; however, the theoretical standpoint is relatively weak. The only text that qualifies here is a roughly 1-page description of the problem, a declaration of its similarity to the employee scheduling problem, and a sketch of a polynomial reduction of the solved problem to the employee scheduling. Moreover, this section should have been in the chapter Analysis rather than the chapter Design. From the typography point of view, some images could have been generated and included as vectors rather than bitmaps; figure captions should've been placed below the figures. Code snippets spanning over multiple pages unnecessarily extend the thesis length and provide very little information. If someone is interested in the code, they will look at it, and a simple reference should be enough.

3. Non-written part, attachments

75 /100 (C)

As mentioned above, I had to fix issues with paths to resources to make the implementation work for me. I presume the issue is not present on Windows or Mac,

where I suppose it was developed. I would like to thank for a meaningful readme file with steps to start the application. The only missing piece of information was the logging credentials.

4. Evaluation of results, publication outputs and awards 82 /100 (B)

The tool's application is straightforward; however, I reckon the constraints of teachers need to be provided more precisely, perhaps with a specialized domain-specific language. One would need to be careful not to design a language that would be unusable; I understand why one would avoid it.

The overall evaluation 80 /100 (B)

The thesis is solid from the software engineering standpoint; I only miss a more detailed analysis of the algorithm and a program that would be tested on multiple platforms so that the issue I experienced would not manifest. All in all, I recommend the thesis for defense, and I recommend evaluating it with 80 points (B - very good).

Questions for the defense

Since the problem you solve does not have a polynomial solution, can you guess the size of the problem instance that would cause the program to fail to respond in a reasonable time?

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.