**FACULTY
OF INFORMATION
TECHNOLOGY
CTU IN PRAGUE**

Review report of a final thesis

Reviewer:	Ing. Lukáš Bařinka
Student:	Thanh Hung Le
Thesis title:	Exams management and UX in LearnShell
Branch / specialization:	Web and Software Engineering, 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

As mentioned in chapter 2 (Aim of the work): "The goal of this work is to create a new frontend solution for creating, managing, and mentoring exams in LearnShell 2.0 platform.". Alternatively, according to the assignment, in more general: "Propose a new UX flow for the creation and monitoring of exams for teachers".

Necessary steps to do that is to analyze users' needs, to create (multiple) personas, map the customer journey and analyze problems in the current application. According to discovered problems (re)design the application. Unfortunately, I have not found any of these steps in the thesis. The only thing I have found was the analysis of the current business process but without any critical evaluation.

2. Main written part   55 /100 (E)

The chapter structure is highly unbalanced. Some chapters contain only 1 page, or even only two paragraphs of text and others are much longer divided into subchapters to the 3rd level of nesting.

The main issue is the lack of analysis and design. There is no user analysis, or logs from interviews with users or stakeholders. Since that, there is no problem analysis pointing to (re)design of UX flow. It is unclear if/how the analysis affects the design because nor proper analysis nor design are missing. There are some general statements about used tools, but actual results are missing. The only idea about the design can be obtained from screenshots of the application.

The "Analysis" chapter contains a list of "Functional requirements" without any sources. The list has inconsistent naming (e.g. "Exams" vs "Add students to exam").

The "Design" chapter barely contain any design notes; there are general statements only. The part about (Nielsen) Usability Heuristics belongs to the analysis chapter (if it tests the old version) or it belongs to the testing chapter (if it tests the new version). Nonetheless, the heuristic is extended by some notes about the (current) application. However, comments on some parts are missing or do not have a solid background (e.g. "Error messages and notifications are clear and simple.").

The "Testing" chapter contains a section about User testing. However, important details are missing (e.g. testing scenarios, how tests cover users' needs/requirements, log from user testing). Only "The process" and "Conclusion" are very briefly described (e.g. "Other than this Other than this, there were some problems with consistency of some elements." - that duplication is copied from the thesis itself). It's very difficult to make any statements or conclusions from that testing.

3. Non-written part, attachments   70 /100 (C)

Due to lack of analysis (mainly users' needs) and vaguely formulated requirements followed by undocumented user testing phase, any solid conclusions are hard to tell. So, the UX flow part cannot be correctly evaluated.

The documented steps in the pre-implementation and implementation phase show the improvement in the technical background of the application.

4. Evaluation of results, publication outputs and awards   70 /100 (C)

The results are one step forward to better application. On the other hand, the thesis leaves ample space for subsequent improvements, mainly in UX flow.

The student's supervisor is more capable of judging technical details and improvements as well as inner project compliance with other parts of the application. So I do not rate the possibility to use student's results for further work on that system.

The overall evaluation   65 /100 (D)

The student's work can be divided into two areas. The first one is about technologies and implementation. The student shows that he has knowledge and skills in that area are reasonable. The second area is more about software engineering, namely the analysis, design and testing. The student's knowledge and skills in that area are much weaker.

Many parts in the thesis are missing or poorly documented. The implementation, on the other hand, is satisfactory.

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.