



## **OPPONENT'S EVALUATION OF THE BACHELOR'S THESIS**

**Student:** Sher, Ornella Rezgar Byea

**Opponent:** Radek Silhavy

Study program: **Software Engineering**

Study course/Specialization:

Academic year: **2022/2023**

Bachelor's Thesis topic: **Design a Model of Application for eHealth**

### **Evaluation of the thesis:**

This bachelor thesis endeavours to dissect and elucidate the complexities of eHealth applications, aiming to develop an analytical model of such a system. However, the execution and presentation of key topics leave room for substantial improvement.

The author discusses essential terms such as Electronic Health Records and Telemedicine in the theoretical framework. Regrettably, the explanation of these critical concepts remains simplistic and generic. A deeper dive into these topics would have allowed the reader to gain more than just a superficial understanding.

The selection of sample applications is questionable. DocTry, described in chapter 1.5.1, is merely a web design template. Similarly, the Emantal Hospital System (chapter 1.5.2) is presented as a demo website. Both instances lack supportive references and visual representations of the user interface, confusing their inclusion. The author should have ideally focused on discussing existing e-health platforms with substantive relevance.

The technology overview section is disappointingly rudimentary. It offers limited contributions and usability for readers seeking to understand the underlying technologies in eHealth applications.

Another area of concern is the UML (Unified Modeling Language) overview section. The requirements analysis and wireframing are misleadingly included, which aren't elements of UML. The lack of diagrammatic illustrations to complement the UML diagram descriptions renders this section incomplete and unclear.

The functional design remains confined to scheduling meetings, prescriptions, and viewing medical records. These functions are significant but not comprehensive enough for an e-health system design. The use case models assist in illustrating functionality; however, the existence of a 'user' actor and the absence of use cases for the 'Patient' actor is unclear.

The class models, despite some shortcomings, are generally acceptable. However, the sequence diagrams, specifically those in Figure 7 and 8, require revision. The rationale behind the exclusive use of the 'Patient' lifeline is not evident and could benefit from clarification.

The thesis concludes with broadly acceptable prototypes, but the focus on security remains too general. A more in-depth exploration of security concerns in eHealth systems could have bolstered this section.

While this thesis embarks on a crucial topic in contemporary healthcare, the lack of depth, clarity, and applicability significantly hamper its effectiveness. A more detailed and structured approach could significantly enhance the value and usability of this work for future usage in the field of eHealth applications.

**Questions:**

- 1) What was the rationale behind selecting DocTry and the Emantal Hospital System as the sample applications for your thesis? Could you explain why you did not consider discussing existing e-health platforms with broader use and recognition?
- 2) In your functional design, you've limited the system's capabilities to scheduling meetings, prescriptions, and viewing medical records. Could you explain why other potential functionalities were not considered?
- 3) In your use case model, why is there a 'User' actor, and why does the 'Patient' actor have no use cases?

**Overall evaluation of the thesis:**

The Opponent shall grant a mark according to the ECTS classification scale:

A – Excellent, B – Very Good, C – Good, D – Satisfactory, E – Sufficient, F – Insufficient

An “F” grade also means "I do not recommend the thesis for defence."

**I recommend this thesis to be defended and suggest the following evaluation:**

**E - Sufficient**

**In the case of an evaluation grade of “F – Insufficient”, please supply the main shortages and reasons for this assessment.**

Date: 1. 6. 2023

Thesis Opponent's Signature: