

OPPONENT'S EVALUATION OF THE BACHELOR'S THESIS

Student: Ahin Omar Fatah

Opponent: Radek Silhavy

Study program: **Software Engineering**

Study course/Specialization: --

Academic year: **2023/2024**

Bachelor's Thesis topic: **Designing a Model of an Application for a Blood Bank Management System**

Evaluation of the thesis:

The bachelor's thesis analyses software solutions for blood banks and the underlying technologies and methodologies for developing a web-based application. The thesis structure is logically organised, progressing from a general overview to specific technical implementations and user guidance.

Chapter 1 offers an overview of two software solutions that can be utilised in blood banks. While the descriptions provide an understanding, they could benefit from a more in-depth analysis of each software's functionalities and limitations. The latter part of Chapter 1 transitions to a discussion on fundamental web technologies such as HTML, CSS, and grids. One notable issue in this chapter is the incorrect usage of references. References should be placed immediately after the relevant information, rather than at the end of paragraphs, to enhance clarity and credibility.

Chapter 3 stands out as the most essential part of the thesis, presenting a comprehensive requirements model and analysis. Including a use case model effectively illustrates the functions available to relevant actors, enhancing the clarity and practicality of the analysis. The functional analysis is well-documented through use case scenarios, providing a clear and thorough understanding of the system's intended operations. Subchapter 3.3 delves into the system structure using a class model. While the class model is generally well-constructed, there are minor issues, such as the operations in the BloodBagManager class, which should be more closely related to the BloodBag class to maintain consistency and clarity. Chapter 3.4 utilises sequence diagrams to illustrate use cases. These models can be further improved by incorporating classes to demonstrate how they collaborate in implementing each use case.

Chapters 4 and 5 present two prototypes: wireframe models and an HTML prototype. Both prototypes are relevant and effectively aligned with the use case analysis, showcasing a clear progression from conceptual models to practical implementations.

Chapter 6 describes the HTML implementation in detail. This section provides HTML template descriptions. However, it could be enriched by discussing integrating other technologies mentioned earlier in Chapter 1.

In Chapter 7, the author presents a user guide for the HTML prototype application. This guide is comprehensive, but it would greatly benefit from including figures to illustrate each step.

Overall, this bachelor's thesis explores software design for blood banks, focusing on the analytical part. While there are areas for improvement, particularly in enhancing sequence diagrams, the thesis demonstrates an understanding of the subject matter and a well-organized approach to system analysis and design.

Questions:

1. How did you identify and prioritise the requirements for the blood bank system, and what techniques or tools did you use?
2. How can user feedback shape the analysis of the prototypes?

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:

C - Good

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

Date: 16.05.2024

Thesis Opponent's Signature: