

# THESIS SUPERVISOR'S REPORT

#### I. IDENTIFICATION DATA

**Thesis title:** Mobile platform for charitable assistance to seniors using artificial intelligence

Author's name: Lupenko Margarita

**Type of thesis:** bachelor

**Faculty/Institute:** Faculty of Electrical Engineering (FEE) **Department:** Department of Computer Science

Thesis reviewer: Ing. Kyrylo Bulat

**Reviewer's department:** System Testing IntelLigent Lab

#### II. EVALUATION OF INDIVIDUAL CRITERIA

#### **Assignment** challenging

How demanding was the assigned project?

The student had to analyze existing applications on the market, available AI technologies, functional requirements, and technologies for development. The implementation part includes the development of a mobile application that would work on Android and iOS platforms and server-side applications to handle business logic. Moreover, the student had to explore AI technologies and integrate one of them into their work.

#### **Fulfilment of assignment**

fulfilled

How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.

The student fulfilled all assigned tasks and achieved defined goals. The student developed core features of a mobile application ready to serve real users. In addition, the student performed usability testing, which helped to get feedback from the focus group and identify future improvements.

#### Activity and independence when creating final thesis

A - excellent.

Assess whether the student had a positive approach, whether the time limits were met, whether the conception was regularly consulted and whether the student was well prepared for the consultations. Assess the student's ability to work independently.

The student was very independent and asked for feedback regularly. The student met all time limits.

## Technical level B - very good.

Is the thesis technically sound? How well did the student employ expertise in his/her field of study? Does the student explain clearly what he/she has done?

The thesis discusses different phases of software development and provides a theoretical background for software engineering concepts. The Design chapter includes multiple diagrams to illustrate the application's architecture, processes, and classes. In the Implementation chapter, the student delves into the implementation details of both the front-end and back-end applications, using a wide range of technologies. However, to enhance the application architecture section, the student could provide more details on the selected approach.

#### Formal level and language level, scope of thesis

C - good.

Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?

The thesis is organized logically and is sufficiently extensive. Some chapters are overly extensive, which affects the quality of the work. I noticed a few typos which didn't affect the understanding of the content:

- interchangeable usage of "application" and "business" layer terms in the design and implementation parts,
- The text describing the class diagram uses the "Task" term instead of the "Request" term used in the diagram itself
- reference to "UC19" which doesn't exist.

The student used clear and understandable English.

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### Selection of sources, citation correctness

B - very good.

Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?

The student referred to more than 30 sources of information, including books, online documentation, and government-published documents. The student could use more verified sources for some topics, e.g., for MongoDB and Mongoose.

#### Additional commentary and evaluation (optional)

Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.

Please insert your comments here.

# III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

Summarize your opinion on the thesis and explain your final grading.

The student showcased their abilities to develop fully functioning mobile and server-side applications using various technologies. Aside from this, the student discovered available AI technologies and later successfully integrated one of them into the application. The resulting application needs a bit of improvement before being widely used by end users, but the core part is done and ready for future extensions. The student supported their implementation with clear documentation that uncovers the given assignment's complexity and highlights nuances of the software project development. The implementation part of the project is on a reasonable level.

The grade that I award for the thesis is **B** - very good.

Date: **5.6.2024** 

Signature: Kyzylo Bulat