

I. IDENTIFICATION DATA

Thesis title:	Web application for management of personal finances
Author's name:	Filip Krul
Type of thesis :	bachelor
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Computer Science
Thesis reviewer:	Ing. Karel Frajták, PhD.
Reviewer's department:	System Testing IntelLigent Lab

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	ordinarily challenging
The assignment was ordinarily challenging.	

Fulfilment of assignment	fulfilled
It is hard to tell if the assignment was fulfilled, since there are neither guidelines nor goals specified in the thesis assignment. But that's not the fault of the student.	

Methodology	correct
The chosen approach is correct.	

Technical level	C - good.
<i>Is the thesis technically sound? How well did the student employ expertise in the field of his/her field of study? Does the student explain clearly what he/she has done?</i>	
The process of developing the application was clearly explained. The student has analyzed the problem first and then created some diagrams. However, there are some issues here. The database structure diagram is correctly called E-R diagram. The most common processes (authentication process and page load process) and not application specific processes were selected for sequence diagrams. NoSQL databases are not called "non-SQL".	

Formal and language level, scope of thesis	C - good.
The thesis is quite organized, it would make a nice series of blog posts. The text is written in English with number of typos. The text is difficult to understand in some places.	

Selection of sources, citation correctness	E - sufficient.
Many resources are online resources which should be rather cited as footnotes. The online resources are missing their source URL. The rest is cited correctly.	

Additional commentary and evaluation (optional)
<i>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.</i>
There are parts of text that are easy to read and there are parts of the text that either questionable or not supported by evidence. For example: <ul style="list-style-type: none"> - Flutter has limited usefulness, since it has fewer community-created libraries than JavaScript (how is this relevant for the author and his application is not explained) (p.13) - Flutter's disadvantage is its integration with Google Firebase (p.13) - "we don't use the <script> tag since this project uses Tailwind" (p. 37) Or not clear <ul style="list-style-type: none"> - Chapter 3.1 – Svetle is used to create front-end, which communicates with two back-ends - Chapter 3.2 – The front-end comprises of 3 parts – request hook, backend logic and client-side front-end

- Chapter 3.3 - Since both Prisma and Lucia interact with the database directly and have privileges that should not be given to any user, they will also be put in the /src/lib/server directory.

Many of these issues could have been solved if the author explained Svelte more, which would also explain the sentence in Chapter 3.4 “project is not structured the same way most projects in object-oriented languages”.

Author mentions the Svelte application can run in browser even without JavaScript turned on, which I guess is very interesting topic, but the author does not go any deeper here.

The two snippets in Chapter 4.2.1 are misleading and the author is comparing HTML without inlined CSS with one with inlined CSS.

In Listing 4.8 (p. 43) the author showcases a snippet of removing a user from a wallet – I don't think a wallet can exist without an user and in the E-R schema (and in Prisma) the relationship is different.

I appreciate the chapter on testing using Playwright.

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

I don't have any further comments.

Questions for student

1. You mentioned that “One of the encountered problems is that these tests are too fast for a combination of SvelteKit with an SQLite database.”. How can this problem be fixed? Was there time-related issue running the test sequentially? Why did the test not wait for an operation to be completed?
2. SQLite has in-memory option, would this help with the testing issues?

The grade that I award for the thesis is **D - satisfactory**.

Date: **1.6.2023**

Signature: