THESIS REVIEWER'S REPORT

I. IDENTIFICATION DATA

Thesis title:	**Asynchronous Communication Using WebSockets**
Author's name:	**Vít Šesták**
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:	Department of Computer Science

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	**ordinarily challenging**

The assigned project was ordinarily challenging. The author had to learn about WebSockets and implement two versions of reference application.

Fulfilment of assignment	**fulfilled with minor objections**

The primary goals were achieved with some minor objections which I mention later.

Methodology	**correct**

The author used a correct approach. The pretty standard approach of software developers.

Technical level	**D - satisfactory.**

The student explains what he has done. He describes the problem and proposes the solution. However, it is not clear why that particular CodeNOW screen was chosen for the proof-of-concept. It is not explained whether this is a page with extensive traffic (which I doubt it is) and the advantages of PoC are not sound. The results are based on estimates made by people using the screen. It would be better if the author mined the data from the platform monitoring, services which are certainly in place, and based his observations on this data. The very basic optimization for any web communication – compression – is not mentioned at all.

Formal and language level, scope of thesis	**C - good.**

The English is satisfactory, the language is clear and understandable. The thesis is not that extensive. An official CTU template could have been used.

Selection of sources, citation correctness	**C - good.**

Many of the cited resources are online resources, the author cites many technology-related sources. Many cites sources are not adequate and not exactly necessary. There is Czech text in the bibliography section at every online source citation.

Additional commentary and evaluation (optional)	

Author discusses the classic web applications, while the CodeNOW aims to help user to build cloud native applications (even the web ones), which have their specifics, but those are not mentioned at all. The PoC implementation can be improved more with a proper use of TypeScript and not use `any` or with Reactive Extensions to streamline the data processing. Subscriptions are not held in code, but in memory.

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

Questions on user

1. How often the selected properties (name of the application for example) that are susceptible to the user actions change?
2. You said "This approach [Pure websocket communication] also means that whenever user re-enters the page, the stored data is used." How does it work?

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

Date: **29.5.2022**   Signature: