THESIS REVIEWER'S REPORT

I. IDENTIFICATION DATA

Thesis title:	**Cloud-Native and Microservice Application Development**
Author's name:	**Přemek Bělka**
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 (13144)

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	**challenging**

The scope of the project is quite large. The student had to dive into the world of microservices and event driven architecture, both having their nuanced approaches. One new service had be created and payment gateway integrated.

Fulfilment of assignment	**fulfilled**

The assigned task was fulfilled.

Methodology	**outstanding**

Overall, the approach and the solution are correct. The domain of the project is not very large, domain-driven design was chosen correctly. Even though the number of events is low, an event storming method could have been mentioned to illustrate the current event situation and the new one. The problem was properly analyzed, all issues of the solution properly addressed, discussed and fixed.

Technical level	**B - very good.**

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?

The student has clearly explained what was done. The

Formal and language level, scope of thesis	**A - excellent.**

Thesis is well organized and well presented, English is satisfactory, language is clear and understandable.

Selection of sources, citation correctness	**B - very good.**

Most of the sources are online, which makes sense with this type of work. Citations do meet the standards.

Additional commentary and evaluation (optional)

The goal of the project was met, the result will fit into the existing system based on microservices and events. The usage of events and the ability to reroute them or add another downstream service listening for them, increases the flexibility of the system (which was unfortunately not mentioned in the text). The project was well tested. Testing of even-driven systems has its own specific approach – the delivery mechanism can be completely omitted from testing. And with the usage DDD testing can focus solely on aggregates and event handling. In that case only the repositories should be mocked, not the events themselves – they are POJO objects that can be easily initialized, the author even mentions static methods implemented for this case.

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

I don't have any further comments.

The grade that I award for the thesis is **A - excellent.**

Date: **11.6.2024**   Signature: