I. IDENTIFICATION DATA

Thesis name:	**MyOnlineTrainer**
Author's name:	**Dávid Michal Bulko**
Type of thesis :	bachelor
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Computer Science
Thesis reviewer:	Ing. David Kukačka
Reviewer's department:	Centrum znalostního managementu

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	**challenging**

Evaluation of thesis difficulty of assignment.

The assignment combines analytical approach towards problematic domain together with development challenge. Furthermore, assignment calls for user testing of developed product. As such, I consider this assignment to be a challenging one for a bachelor thesis.

Satisfaction of assignment	**fulfilled**

Assess that handed thesis meets assignment. Present points of assignment that fell short or were extended. Try to assess importance, impact or cause of each shortcoming.

After getting familiar with the handed theses, I conclude, that thesis successfully fulfills preset goals. The analytical part is sufficient in terms of scope and range. The resulting application goes beyond assignment by creating two frontends for the application – desktop and mobile version.

Method of conception	**correct**

Assess that student has chosen correct approach or solution methods.

In analytical part, author conducts a research within personal coach community in order to determine, what functional requirements should be placed on such application. These together with stated non-functional requirements provides solid basis for user stories, domain and class diagram.
Outcome of the above should be used, to create a wireframes of application – something that can be easily created and subject to user testing. Using wireframes, application design errors can be discovered early in application development lifecycle. Instead of conducting this, author presumes his conclusions to be correct and jumps into implementation of no less than two application frontends. This could easily be a very costly approach towards application development.
On the other hand, I commend author approach towards technology selection and application deployment. Therefore I assess authors overall solution as correct.

Technical level	**A - excellent.**

Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.

Backend implementation is well grasped Spring implementation. Code is logically separated into packages containing necessary logic, controller classes provides logging for production debugging, services are tested using jUnit. Code contains minor code-smells, such as using generic wildcard type, utility classes without private constructors and commented blocks of "dead code".
Mobile version of application was a pleasant surprise. Components are well structured, written in functional manner. Besides React, author displayed knowledge of Redux to hold application state. Well done.
Desktop React implementation is built upon Material UI library to create basic application skelet. Curiously, no sign of Redux is used – if the application is about to grow, a mean of handling state will have to be introduced. Week point is missing Jest testing.

Altogether, code level meets given requirements and is considered as successful implementation.

Formal and language level, scope of thesis	**C - good.**
Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.	

The language level of thesis could be improved. The demands placed on language level of English thesis are same as if student chooses to write the thesis in his native language. Yet, some of the phrasing used in thesis is elementary, while other is plain wrong, such as: "from the year" (page 4), "should be available to do in the system" (page 15), "help them better their service" (page 36).

Also the typography level of the thesis deserves more attention. Looking at two tables on page 6, what´s more both listed under "figures", that follows completely different style, is disturbing.

While listing items in text (eg: advantages), author mixes sentences with mare phrases. List items also tend to miss dot in some cases.

Selection of sources, citation correctness	**A - excellent.**
Present your opinion to student's activity when obtaining and using study materials for thesis creation. Characterize selection of sources. Assess that student used all relevant sources. Verify that all used elements are correctly distinguished from own results and thoughts. Assess that citation ethics has not been breached and that all bibliographic citations are complete and in accordance with citation convention and standards.	

Thesis use wide range of sources, the overall citation level is above expected for a bachelor thesis.

Additional commentary and evaluation
Present your opinion to achieved primary goals of thesis, e.g. level of theoretical results, level and functionality of technical or software conception, publication performance, experimental dexterity etc.
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III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation. Please present apt questions which student should answer during defense.

The thesis assignment is well selected and highly contributing to student of given field. Thesis required knowledge of several programming languages and frameworks, not to mention the analytical challenge. Student grasped the assignment extremely widely by creating two different frontends and one backend – from my point of view, for bachelor thesis this is unnecessary broad scope. I would recommend building the app with MVP (minimal viable product) in mind, while more closely following the recommended development lifecycle (not skipping wireframes). This would also provide author with more time for typography and language improvements.

The incredible amount of work behind the thesis and high technically quality level swayed me into overlooking above stated flaws and grading the thesis with A.

Questions:
1. Why is it important to perform user testing with a wireframe version of application? How many rounds (user test followed by wireframe change) of user testing would you recommend before coding the app?
2. When building React app with Redux for handling application state, what part of application is vital to test using Jest (or another similar tool)?

I evaluate handed thesis with classification grade **A - excellent.**

Date: **9.6.2020**   Signature: