FACULTY OF INFORMATION TECHNOLOGY CTU IN PRAGUE

Supervisor's statement of a final thesis

Student:	Bc. Vladislav Khachaturian
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Thesis title:	Web interface for real-time video analytics system
Branch of the study:	Web and Software Engineering

Date: 4. 6. 2020

Evaluation criterion:	The evaluation scale: 1 to 4.
1. Fulfilment of the assignment	**1 = assignment fulfilled,** 2 = assignment fulfilled with minor objections, 3 = assignment fulfilled with major objections, 4 = assignment not fulfilled

Criteria description:
Assess whether the submitted FT defines the objectives sufficiently and in line with the assignment; whether the objectives are formulated correctly and fulfilled sufficiently. In the comment, specify the points of the assignment that have not been met, assess the severity, impact, and, if appropriate, also the cause of the deficiencies. If the assignment differs substantially from the standards for the FT or if the student has developed the FT beyond the assignment, describe the way it got reflected on the quality of the assignment's fulfilment and the way it affected your final evaluation.

Comments:
The assignment was fulfilled. In fact, the assignment extent was very large, including deep analysis of tools that need to be orchestrated to develop the web module and then the implementation itself.

Evaluation criterion:	The evaluation scale: 0 to 100 points (grade A to F).
2. Main written part	70 (C)

Criteria description:
Evaluate whether the extent of the FT is adequate to its content and scope: are all the parts of the FT contentful and necessary? Next, consider whether the submitted FT is actually correct – are there factual errors or inaccuracies? Evaluate the logical structure of the FT, the thematic flow between chapters and whether the text is comprehensible to the reader. Assess whether the formal notations in the FT are used correctly. Assess the typographic and language aspects of the FT, follow the Dean's Directive No. 26/2017, Art. 3. Evaluate whether the relevant sources are properly used, quoted and cited. Verify that all quotes are properly distinguished from the results achieved in the FT, thus, that the citation ethics has not been violated and that the citations are complete and in accordance with citation practices and standards. Finally, evaluate whether the software and other copyrighted works have been used in accordance with their license terms.

Comments:
The text is very technical and dense, so it is quite hard to read. However, it does explain almost all technical details of the analysis and development, so the reader can use the text as a comprehensive source of information for an implementation of similar work (or an extension of this one).

I miss some high-level description of the web module (e.g., using UML). Also, due to time constraints there were not performed all the tests usual in the software development process. I also miss evaluation of the measurements included in section 5, optionally with interpretation and recommendation for future software improvements.

There is lot of typos and language issues, but not so serious to limit the understanding of the text.

Evaluation criterion:	The evaluation scale: 0 to 100 points (grade A to F).
3. Non-written part, attachments	100 (A)

Criteria description:
Depending on the nature of the FT, comment on the non-written part of the thesis. For example: SW work – the overall quality of the program. Is the technology used (from the development to deployment) suitable and adequate? HW – functional sample. Evaluate the technology and tools used. Research and experimental work – repeatability of the experiment.

Comments:
Huge efforts were made in the analysis part of the work, where a number of technologies and 3rd party tools/servers were evaluated that needed to be employed (orchestrated) to the final software architecture. This is reflected in detailed section 2 which shows the reasons and decisions made in the course of development.

The implementation part of the work represents the largest amount of work, as it not only serves as a traditional web GUI, but it also integrates management of all other Videolytics modules + is responsible for the video streaming itself and the real-time synchronization of visualizations fetched from the feature database.

Evaluation criterion:	The evaluation scale: 0 to 100 points (grade A to F).

4. Evaluation of results, publication outputs and awards	80 (B)

Criteria description:
Depending on the nature of the thesis, estimate whether the thesis results could be deployed in practice; alternatively, evaluate whether the results of the FT extend the already published/known results or whether they bring in completely new findings.

Comments:

The work (web module) is the critical and central part of the Videolytics system. Hence, the usability is very high and the module development will continue. A demo paper about the entire Videolytics system will be submitted to the CIKM 2020 conference (CORE A).

Evaluation criterion:	*The evaluation scale: 1 to 5.*
5. Activity and self-reliance of the student	5a: **1 = excellent activity,** 2 = very good activity, 3 = average activity, 4 = weaker, but still sufficient activity, 5 = insufficient activity 5b: **1 = excellent self-reliance,** 2 = very good self-reliance, 3 = average self-reliance, 4 = weaker, but still sufficient self-reliance, 5 = insufficient self-reliance.

Criteria description:
From your experience with the course of the work on the thesis and its outcome, review the student's activity while working on the thesis, his/her punctuality when meeting the deadlines and whether he/she consulted you as he/she went along and also, whether he/she was well prepared for these consultations (5a). Assess the student's ability to develop independent creative work (5b).

Comments:

The student was highly active, attending (almost) all weekly consultations of the Videolytics team, even in the period of coronacrisis (using zoom). He also proved to work in large team (9 students) where he was also responsible for coordination and integration of other modules with the web module. This was also non-trivial and time-consuming part of the job.

Evaluation criterion:	*The evaluation scale: 0 to 100 points (grade A to F).*
6. The overall evaluation	80 (B)

Criteria description:
Summarize which of the aspects of the FT affected your grading process the most. The overall grade does not need to be an arithmetic mean (or other value) calculated from the evaluation in the previous criteria. Generally, a well-fulfilled assignment is assessed by grade A.

Comments:

The student did a decent job and a load of work, resulting in a functional web module for the Videolytics system. The text of the diploma thesis is not perfect, but this is (over)compensated by the development part of the thesis.

Signature of the supervisor: