

# Review report of a final thesis

Czech Technical University in Prague

Faculty of Information Technology

**Student:** Daniel Chabr  
**Reviewer:** Ing. et Ing. Martin Švík Ph.D.  
**Thesis title:** Solution for Management and Visualization of Complex Search Queries  
**Branch of the study:** Software Engineering (Bachelor)

**Date:** 12. 6. 2015

<p><i>Evaluation criterion:</i></p> <p><b>1. Difficulty and other comments on the assignment</b></p>	<p><i>The evaluation scale: 1 to 5.</i></p> <p>1 = extremely challenging assignment, <b>2 = rather difficult assignment,</b> 3 = assignment of average difficulty, 4 = easier, but still sufficient assignment, 5 = insufficient assignment</p>
<p><i>Criteria description:</i> Characterize this final thesis in detail and its relationships to previous or current projects. Comment what is difficult about this thesis (in case of a more difficult thesis, you may overlook some shortcomings that you would not in case of an easy assignment, and on the contrary, with an easy assignment those shortcomings should be evaluated more strictly.)</p> <p><i>Comments:</i> The topic that Daniel took was difficult as it expected complex view of many front end and backend technologies and query visualisation and persistence itself with parsing rules of complex queries. Daniel did very wide literature research and analyzed as well many search engines to be able to define universal solution for visualization of unstructured queries.</p>	
<p><i>Evaluation criterion:</i></p> <p><b>2. Fulfilment of the assignment</b></p>	<p><i>The evaluation scale: 1 to 4.</i></p> <p><b>1 = assignment fulfilled,</b> 2 = assignment fulfilled with minor objections, 3 = assignment fulfilled with major objections, 4 = assignment not fulfilled</p>
<p><i>Criteria description:</i> Assess whether the thesis meets the assignment statement. In Comments indicate parts of the assignment that have not been fulfilled, completely or partially, or extensions of the thesis beyond the original assignment. If the assignment was not completely fulfilled, try to assess the importance, impact, and possibly also the reason of the insufficiencies.</p> <p><i>Comments:</i> The assignment has been fully fulfilled. Daniel from many point of views overachieved bachelor thesis and if possible I would suggest to take it as diploma thesis.</p>	
<p><i>Evaluation criterion:</i></p> <p><b>3. Size of the main written part</b></p>	<p><i>The evaluation scale: 1 to 4.</i></p> <p><b>1 = meets the criteria,</b> 2 = meets the criteria with minor objections, 3 = meets the criteria with major objections, 4 = does not meet the criteria</p>
<p><i>Criteria description:</i> Evaluate the adequacy of the extent of the final thesis, considering its content and the size of the written part, i.e. that all parts of the thesis are rich on information and the text does not contain unnecessary parts.</p> <p><i>Comments:</i> The bachelor thesis is very well structured does not contain any unnecessary parts. The review of literature is complex enough. Analysis and design phases are straight forward.</p>	
<p><i>Evaluation criterion:</i></p> <p><b>4. Factual and logical level of the thesis</b></p>	<p><i>The evaluation scale: 0 to 100 points (grade A to F).</i></p> <p>95 (A)</p>
<p><i>Criteria description:</i> Assess whether the thesis is correct as to the facts or if there are factual errors and inaccuracies. Evaluate further the logical structure of the thesis, links among the chapters, and the comprehensibility of the text for a reader.</p> <p><i>Comments:</i> Bachelor thesis does not contain any factual errors or inaccuracies.</p>	
<p><i>Evaluation criterion:</i></p> <p><b>5. Formal level of the thesis</b></p>	<p><i>The evaluation scale: 0 to 100 points (grade A to F).</i></p> <p>95 (A)</p>
<p><i>Criteria description:</i> Assess the correctness of formalisms used in the thesis, the typographical and linguistic aspects, see Dean's Directive No. 12/2014, Article 3.</p> <p><i>Comments:</i> Bachelor work is fully compliant according to the deans directive.</p>	
<p><i>Evaluation criterion:</i></p>	<p><i>The evaluation scale: 0 to 100 points (grade A to F).</i></p>

## 6. Bibliography

95 (A)

### Criteria description:

Evaluate the student's activity in acquisition and use of studying materials in his thesis. Characterize the choice of the sources. Discuss whether the student used all relevant sources, or whether he tried to solve problems that were already solved. Verify that all elements taken from other sources are properly differentiated from his own results and contributions. Comment if there was a possible violation of the citation ethics and if the bibliographical references are complete and in compliance with citation standards.

### Comments:

The bibliography is accurate and all the reused texts has been cited.

### Evaluation criterion:

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

## 7. Evaluation of results, publication outputs and awards

95 (A)

### Criteria description:

Comment on the achieved level of major results of the thesis and indicate whether the main results of the thesis extend published state-of-the-art results and/or bring completely new findings. Assess the quality and functionality of hardware or software solutions. Alternatively, evaluate whether the software or source code that was not created by the student himself was used in accordance with the license terms and copyright. Comment on possible publication output or awards related to the thesis.

### Comments:

Due to the fact that Dan has done very good analysis and literature review - the problem has been found. The bachelor thesis extends state of the art results.

The overall quality is very good because proposed solution is independent on hardware platform and is running on many operating systems.

### Evaluation criterion:

No evaluation scale.

## 8. Applicability of the results

### Criteria description:

Indicate the potential of using the results of the thesis in practice.

### Comments:

The results are already used in practice as Dan has solved complex problem and developed solution that is now used in couple of implementations.

### Evaluation criterion:

No evaluation scale.

## 9. Questions for the defence

### Criteria description:

Formulate any question(s) that the student should answer to the committee during the defence (use a bullet list).

### Questions:

- 1) Do you see any limitation in your proposed solution regarding size of the complex queries?  
Is there any chance to optimize Javascript for slow mobile devices? Is there a chance to store less information about nodes etc and optimize performance?
- 2) In the thesis there is couple of times mentioned that the solutions has been heavily teted by end users.  
Can you provide couple of examples from user based testing that has to be changed (improved)? Were all recommendations related to UI changes or as well some of them had impact on the backend?

### Evaluation criterion:

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

## 10. The overall evaluation

95 (A)

### Criteria description:

Summarize the parts of the thesis that had major impact on your evaluation. The overall evaluation **does not** have to be the arithmetic mean or any other formula with the values from the previous evaluation criteria 1 to 9.

### Comments:

I was fully surprised of the level of quality of the work Dan has done during entire bachelor thesis. From the literature review - analysis of many serach engines to the proposal of complex architecture independent on the operating system and hardware platform.

Signature of the reviewer: