



# Review report of a final thesis

**Student:** Bc. Martin Hak  
**Reviewer:** MSc. Juan Pablo Maldonado Lopez, Ph.D.  
**Thesis title:** Vývoj aplikace pro RFM analýzu a její nasazení v analytickém prostředí Keboola Connection  
**Branch of the study:** Knowledge Engineering

**Date:** 18. 5. 2018

<i>Evaluation criterion:</i>	<i>The evaluation scale: 1 to 5.</i>
<b>1. Difficulty and other comments on the assignment</b>	<b>1 = extremely challenging assignment, 2 = rather difficult assignment, 3 = <u>assignment of average difficulty</u>, 4 = easier, but still sufficient assignment, 5 = insufficient assignment</b>
<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.)	
<i>Comments:</i> The level of the assignment is suitable for the bachelor level.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 1 to 4.</i>
<b>2. Fulfilment of the assignment</b>	<b>1 = <u>assignment fulfilled</u>, 2 = assignment fulfilled with minor objections, 3 = assignment fulfilled with major objections, 4 = assignment not fulfilled</b>
<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.	
<i>Comments:</i> The assignment was fulfilled.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 1 to 4.</i>
<b>3. Size of the main written part</b>	<b>1 = <u>meets the criteria</u>, 2 = meets the criteria with minor objections, 3 = meets the criteria with major objections, 4 = does not meet the criteria</b>
<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.	
<i>Comments:</i> The size and content of the written part	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
<b>4. Factual and logical level of the thesis</b>	<b>90 (A)</b>
<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.	
<i>Comments:</i> The text is comprehensible, even for non-native Czech speakers as myself.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
<b>5. Formal level of the thesis</b>	<b>90 (A)</b>
<i>Criteria description:</i> Assess the correctness of formalisms used in the thesis, the typographical and linguistic aspects, see Dean's Directive No. 26/2017, Article 3.	
<i>Comments:</i> I believe the language is formal enough for a bachelor work.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
<b>6. Bibliography</b>	<b>80 (B)</b>

*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:*

I do not like the over-reliance on blogs and other online sources. RFM segmentation has been around for long enough to deserve a bit more bibliographical research in reliable, peer-reviewed and published sources.

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

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

*80 (B)*

*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:*

Although there is a strong commercial value on the work of Martin, there is still work to be done to make a case for publication.

*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 bachelor work has been clearly conceived having a business application in mind, hence the results are readily applicable.

*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:*

- Could you apply other unsupervised learning methods for RFM segmentation, instead of relying in manual or statistical binning (quantiles, etc)?
- How could you quantify the migration of customers from one segment to another?

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

**10. The overall evaluation**

*80 (B)*

*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:*

The commercial value is sound, and Martin has a clear understanding of the business meaning of his work. I have also no objections about the software architecture. However, there is still room to improve on the modelling.

Signature of the reviewer: