

# Supervisor's statement of a final thesis

Czech Technical University in Prague

Faculty of Information Technology

**Student:** Bc. Radmir Usmanov  
**Supervisor:** Ing. Milan Dojčinovski  
**Thesis title:** Collection, Transformation, and Integration of Data from the Web Services Domain  
**Branch of the study:** Web and Software Engineering

**Date:** 29. 1. 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 main goal of the thesis is to collect and aggregate Web API descriptions available from several repositories. In order to achieve this goal, the student had to identify existing Web API repositories, get familiar with the used data models, implement an automated collection and transformation process, transform and align different data models and semantically describe the data. Considering the expected outputs, it is an assignment of average difficulty.	
<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 student completely fulfilled the assignment according to the initial plan.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 1 to 4.</i>
<b>3. Size of the main written part</b>	<b>1 = meets the criteria, 2 = <u>meets the criteria with minor objections</u>, 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 thesis meets the criteria for written part, with few minor objections: section 1.2.10 does not provide complete and clear summarization of the Web service description models, section 1.3 is not reach enough - comprehensive information for each Web API data source is missing.	
<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>100 (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> No factual errors in the thesis have been identified. The thesis is well structured.	
<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>82 (B)</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> The student had to pay attention on the linguistic aspects. Quite some grammatical errors have been identified. Abbreviations are not explained in the same manner across the thesis.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
<b>6. Bibliography</b>	<b>100 (A)</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:*

The student uses relevant sources and provides proper citations.

*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:*

The student has implemented a crawler for automatic collection, transformation and modeling of Web API descriptions. To the best of our knowledge, there has been no similar effort in the past. Although the student produced valuable results, it requires some additional efforts to make this work feasible for a scientific 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 student generated a large dataset with semantic Web API descriptions. The dataset can be used for discovery of Web APIs as well as for analysis of the Web API ecosystem.

*Evaluation criterion:*

*The evaluation scale: 1 to 5.*

**9. Activity and self-reliance of the student**

*9a:*

**1 = excellent activity,**

**2 = very good activity,**

**3 = average activity,**

**4 = weaker, but still sufficient activity,**

**5 = insufficient activity**

*9b:*

**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:*

Review student's activity while working on this final thesis, student's punctuality when meeting the deadlines and consulting continuously and also, student's preparedness for these consultations. Furthermore, review student's independency.

*Comments:*

The student regularly attended the planned meetings and always came prepared. The student actively communicated newly identified issues and managed to solve them. It was my pleasure to work with Radmir.

*Evaluation criterion:*

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

**10. The overall evaluation**

**83 (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 student has shown good ability for independent development of a software throughout all development stages - from analysis to design, implementation and testing. The student has shown great skills in identifying and solving problems as well as getting familiar with new technologies.

The student should have paid attention on the formal aspect and the content of the thesis. However, mentioned shortcomings are not crucial for the final outcome of the thesis.

I recommend defense of the thesis with grade B.

Signature of the supervisor: