

Review of Master's Thesis

Student: Pahuta Serhii, Bc.

Title: Polymer Elements for a Business Process Management System (id 20227)

Reviewer: Rychlý Marek, RNDr., Ph.D., UIFS FIT VUT

- 1. Assignment complexity** **average assignment**
The master's thesis deals with design and implementation of custom Web Components for JBoss BPM Business Central user console. It is an averagely difficult assignment.
- 2. Completeness of assignment requirements** **assignment fulfilled**
The assignment has been fulfilled in its entirety.
- 3. Length of technical report** **almost in minimum requirements**
The length of the technical report almost fulfils minimal requirements (it is 37 printed pages of about 62000 characters, that is 34.5 normalised pages without figures, from Introduction to Conclusion sections). Moreover, there are several long tables in the report's main part, the tables that should be put into appendices. Despite of this fact, the content is quite informative and without any redundant parts.
- 4. Presentation level of technical report** **75 p. (C)**
The structure of the text is good, chapters follow in the logical order. The design of the custom HTML elements in chapter 4 should be more detailed - it is not sufficient to describe the elements just informally without specifying their attributes, nesting, etc.
- 5. Formal aspects of technical report** **60 p. (D)**
Linguistic quality of the work is ok (except for minor grammar errors in the Czech abstract), however, there is a high number of flaws in the other formal aspects - various lengths of dashes (see an itemised list on page 13); a source code listing in a frame with a page-break (page 13-14); a wrong text alignment of the first paragraph (Sec. 3.1 on page 15); a word duplication of Table/Figure (on pages 16 and 17); a wrong table number 3.1/3.2 (on page 17); a reference error (on page 34 with a Russian error message).
- 6. Literature usage** **70 p. (C)**
The bibliography contains 28 items. The most of the bibliographical sources are web pages documenting technologies utilised in the thesis. The bibliography is well formatted, except for missing citation dates for online sources, and the individual sources are correctly referred from the text, except for the item number 8 which does not seem to be in the text.
- 7. Implementation results** **75 p. (C)**
In the thesis, six new custom HTML elements has been defined and implemented as Web Components to allow to present and submit data into JBoss BPM Business Central user console. The elements are implemented correctly and a sample application is provided to assemble the components and to connect to a JBoss BPM console.
- 8. Utilizability of results**
The result may be useful with a better documentation of the components and a more complex sample application. Currently, a customisation of the components and their usage may be difficult.
- 9. Questions for defence**
 - How are client request invoked by "kie-server-execute" element and another kie- elements processed by a server? Does it require a new implementation or any customisation of the server?
 - How the monkey testing mentioned on page 38 was performed? Automatically or manually?
- 10. Total assessment** **60 p. satisfactory (D)**
The submitted technical report is too short and contains many errors. The software product is correct, however, its documentation and the sample application cloud be better. To summarise, the quality of the submitted work is quite low. I would recommend to assess the master's thesis as **satisfactory (D)**.

In Brno 31. May 2017

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