

Brno University of Technology - Faculty of Information Technology

Department of Intelligent Systems

Academic year 2017/2018

Bachelor's Thesis Specification

For: **Tóth Adrián**

Branch of study: Information Technology

Title: **Continuous Integration and Automated Code Review in Open Source Projects**

Category: Software analysis and testing

Instructions for project work:

1. Study the theoretical background behind continuous integration and automated code review. Conduct research on the solutions used in popular open source projects.
2. Analyze the implementation of the code review robot used in ManageIQ. Based on this research, propose enhancements to the implementation.
3. Implement the enhancements within ManageIQ.
4. Evaluate the enhanced developer experience achieved by implemented enhancements. Discuss the development with project maintainers.

Basic references:

- Manageiq. https://github.com/ManageIQ/miq_bot, 2008. [Online; accessed 2017-11-02].
- Market place. <https://github.com/marketplace>, 2017. [Online; accessed 2017-11-02].
- Martin Fowler. Continuous integration. <https://martinfowler.com/articles/continuousIntegration.html>, 2006. [Online; accessed 2017-11-02].
- ThoughtWorks. Continuous integration. <https://www.thoughtworks.com/continuous-integration>, 2017. [Online; accessed 2017-11-02].

Requirements for the first semester:

Item 1 and 2.

Detailed formal specifications can be found at <http://www.fit.vutbr.cz/info/szz/>

The Bachelor's Thesis must define its purpose, describe a current state of the art, introduce the theoretical and technical background relevant to the problems solved, and specify what parts have been used from earlier projects or have been taken over from other sources.

Each student will hand-in printed as well as electronic versions of the technical report, an electronic version of the complete program documentation, program source files, and a functional hardware prototype sample if desired. The information in electronic form will be stored on a standard non-rewritable medium (CD-R, DVD-R, etc.) in formats common at the FIT. In order to allow regular handling, the medium will be securely attached to the printed report.

Supervisor: **Turoňová Lenka, Ing.**, DITS FIT BUT

Beginning of work: November 1, 2017

Date of delivery: May 16, 2018

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