## **UNIVERSITY OF TARTU**

Institute of Computer Science Computer Science Curriculum

# **Felix Ranne**

# Effects of introducing test automation to the software development process

**Bachelor's Thesis (9 ECTS)** 

Supervisor(s): Dietmar Alfred Paul Kurt Pfahl

Effects of introducing test automation to the software development process

**Abstract:** 

This thesis studies the effects of implementing automated testing to a software testing process

in which automation has not yet been implemented. A set of automated tests that test an API

will be developed and the execution of the tests made available to the development team of the

product that will have automated testing. The benefits and drawbacks of implementing

automated tests will be determined via a questionnaire and the author's own observations.

**Keywords:** 

API, point-of-sale, automated testing, API testing, system testing

**CERCS: P175** 

Automaattestide implementeerimise mõjud tarkvaraarenduse protsessile

Lühikokkuvõte:

Antud töös uuritakse, millised on mõjud automaattestimise sisse toomisel tarkvara testimise

protsessi, kus automatiseerimist varem pole tehtud. Arendatakse hulk automaatteste, mis

testivad API-t, ning testid saavad olema kättesaadavad testitava toote arendusmeeskonnale.

Uuritakse läbi küsimustiku ja töö autori enda vaatlusest, millised on eelised ja puudused

automaattestimise juurutamisel.

Võtmesõnad:

API, müügipunkt, automaattestid, API testimine, süsteemi testimine

**CERCS: P175** 

2

### License

Non-exclusive licence to reproduce the thesis and make the thesis public

## I, Felix Ranne,

1. grant the University of Tartu a free permit (non-exclusive licence) to:

reproduce, for the purpose of preservation, including for adding to the DSpace digital archives until the expiry of the term of copyright, my thesis

Effects of introducing test automation to the software development process,

supervised by Dietmar Alfred Paul Kurt Pfahl,

- 2. I grant the University of Tartu the permit to make the thesis specified in point 1 available to the public via the web environment of the University of Tartu, including via the DSpace digital archives, under the Creative Commons licence CC BY NC ND 4.0, which allows, by giving appropriate credit to the author, to reproduce, distribute the work and communicate it to the public, and prohibits the creation of derivative works and any commercial use of the work from *01.06.2029* until the expiry of the term of copyright,
- 3. I am aware that the author retains the rights specified in points 1 and 2.
- 4. I confirm that granting the non-exclusive licence does not infringe other persons' intellectual property rights or rights arising from the personal data protection legislation.

Felix Ranne

15/05/2024