

Dear <Participant Name>,

First of all, we would like to thank you for being a part of this research and helping us to achieve our research goals.

Who we are:

Since you agreed to participate in this survey you probably know one or more of us already. We are Dr. Sebastiano Panichella, Senior Research Associate at the S.E.A.L. group at the University of Zurich (UZH), Ivan Taraca, Master Student at the UZH, and Gulshan Kundra, Master Student at the Lappeenranta University of Technology (LUT), and currently working on his master thesis at the UZH.

Our Research:

Our group is performing a study aimed at investigating the usefulness of a tool called TestSmellsDescriber (TSD), which aims at supporting developers to understand the characteristics of test suites TSD is used to automatically detect "test and code smells" by leveraging information retrieval techniques and static analysis tools. Information about the detected smells are used by TSD to generate detailed as well as general descriptions about the presence of the smells in a software project's test suite, along with recommendations to improve test quality, e.g., by refactoring operations.

Timeline:

The deadline to complete the whole survey is approximatively one-week (maximum 8 days), since the time you receive this email. We greatly appreciate early submissions :)

Survey:

Our goal of this survey is to observe how TSD impacts the overall "Developer's Awareness about Test Suite Quality" and how this helps them to perform appropriate changes on test or source code. For this we constructed a survey, which we split up into four parts for your convenience. At the start of each survey we ask you for your e-mail address. This is solely to assist us in connecting the four split up parts into one.

1.

Pre-task survey:

This short preliminary survey helps us to gather background and context information about you, e.g. about your experience with Java. You can find the survey under the following link.

Link: https://docs.google.com/forms/d/e/1FAIpQLSftx7uu0mmpOwaWh-golNhIIjr9V09ZRfL5SnMANN4-Rg2T-A/viewform?usp=sf_link

2.

Test smell tasks:

The second part of our survey consists of two refactoring tasks coupled with a survey. For each task we will provide you with the source code of a selected Apache project, from which we additionally selected two test classes (1 project, 2 tasks, 2 classes to analyze per each project).

Goal: These classes harbor test smells. The goal of your task is to identify any smells that you are able to find within the test classes and to improve the code by removing the smells to the best of your knowledge.

Timeline: We ask you to spend a maximum amount of thirty minutes on each test class. Please note down the time it took for you to complete each task. The task for each project should be completed in a single run, but you can safely perform both tasks at different times (e.g., on two different days).

Resources: To aid you in your search we share in this email a PDF containing information regarding test smells and their refactoring. This helps you to freshen up your knowledge on smells to prepare you for the tasks. To start the task, download and unzip the source code of the projects from the following provided Dropbox link:

Link: <https://www.dropbox.com/s/sdufpbznkdcsIfu/Workspace1.zip?dl=0>

Before starting the task and the time you can make yourself familiar with the source code.

a)

First Task:

To start the first task, open up the survey under the following link, where you can find the selected test classes. After completing the task directly fill out the survey. Reminder: Don't forget to note down the time it took you to complete the code part.

Link:https://docs.google.com/forms/d/e/1FAIpQLSdfn2Y4EClyc9tJTZtm4I-quc3zRT_z2OrUaKmI1R4hRIsVTQ/viewform?usp=sf_link

b)

Second Task:

The second task can be started by opening the following link. Again, please fill out the survey after completing the code part of this task.

Link:https://docs.google.com/forms/d/e/1FAIpQLScn4eEVQQSAsX_EqtbeRIjGc70MWASa0X_E-PWfFM1S0Y7wbq/viewform?usp=sf_link

3.

Post-task survey:

One more survey to go! You almost made it. Thank you again for participating. Once you have completed above tasks you can fill out the survey which can be found under the following link

Link:https://docs.google.com/forms/d/e/1FAIpQLSdfEWk0mcnKJoQk3J4Ec7eyNMvkl_3_bkKyUcsf5eC_QsAMpzw/viewform?usp=sf_link

If you have any confusions/questions related to the tasks or surveys, please don't hesitate to contact any of us under the following email addresses.

- panichella@ifi.uzh.ch
- ivan.taraca@uzh.ch
- gulshan.kundra@student.lut.fi

Thank you again for participating and by aiding us in our research!

Best Regards,
Sebastiano Panichella
Ivan Taraca
Gulshan Kundra