Dear participant,

In order to aid software developers in debugging, we developed EvoCrash, a search-based approach to automated crash reproduction. EvoCrash receives a Java crash stack trace, and searches for a unit test case that can reproduce the crash. Our primary results show that the approach is capable of reproducing over 80% of the reported crashes. Despite the promising results from the evaluations, EvoCrash is in early stages of development, therefore, we are motivated to seek opportunities toward further improving the approach. Thus, we have designed a study, in which we assign 2 debugging tasks to Java software developers and study the outcome of their debugging practices.

As part of your assignment in the "*Software Testing and Reverse Engineering*" course, you are going to participate in the study, based on which you will later produce your group reports.

Please note:

1. The data from the study will be used **anonymously** and **will have no impact on your course grades**.

2. The data will be used only for research purposes by the EvoCrash team and will not be shared with third parties.

3. You are expected to conduct the debugging tasks **individually**. However, after the experiment is done, you can share your experience and results with your group mates in order to produce the group report.

4. The study may take up to 2 hours. Please make sure to keep your browser open until the study is over.

Tool requirements:

1. Make sure you have **Git** installed so you can clone the target projects.
2. Make sure you have **Maven** installed.
3. Make sure you have a recent distribution of **Eclipse**, with the **M2E** plugin installed on it.
4. You will use the **Mylyn** Eclipse plugin during the tasks so that the time you take for each task is tracked. This plugin comes with the recent distributions of Eclipse, so you do not need to install it.

Make sure to follow the instructions from the "*Mylyn Instructions.pdf*" on how to:

1) set it up in advance,

2) **create** and **activate** the debugging tasks during the assignment, and
3) mark each task as **complete** once you are done.

The study design:

1. The assignment starts with a survey, by the link:
https://qtrial2017q1az1.qualtrics.com/SE/?SID=SV_6EBCty6GXEHNENv

2. Next, as you proceed, the survey will point you to a link to a project on Github, for Task-1. The instructions for the task are given in the README of the project.

3. Next, as you proceed, the survey will point you to a link to a project on Github, for Task-2. The instructions for the task are given in the README of the project.

N.B. You have to spend at least 15 minutes on each task.You will have only 45 minutes to do the task. After 45 minutes have passed, the survey will proceed to follow-up questions automatically!

4. After you answer the questions, the assignment is over. Please send us the data collected via Mylyn as well as any artefact you may produce during the tasks (*e.g. code, test case, etc.*).

You can always contact us at: *m.soltani@tudelft.nl*

The EvoCrash team appreciates your participation,

Good Luck!