Module I Assignment 2 (1hp)

This document provides the instructions for the Module I, Assignment 2 in DVA-448. The assignment, when completed, corresponds to 1 credit of the 2.5 credits in the course examination. The assignment is split into two parts, Part A and Part B.

Assignment 2, Part A: Design/Architecture/Specification-Based RTS (0.5hp)

Objective

The objective of this assignment is to let students search, read and reflect on alternative mechanisms of RTS.

Reporting

Please send your answers in a written individual report (no more than <u>one</u> normal page) to wasif.afzal@mdh.se.

Description

As you have seen in this course, many RTS techniques are based on source code analysis, such as control flow and data flow analyses. They are, therefore, white-box strategies.

Your task in this assignment is to find a RTS strategy that <u>*does not*</u> make use of structural code information to select test cases for regression testing.

Please report one such study (with complete citation) and answer the following questions:

1. What is the basis for regression test selection in your selected paper?
2. What are the required artefacts to successfully run your selected RTS strategy?
3. How practical is the your selected strategy?
4. Comparing it to the strategies discussed in the course, what are its benefits and drawbacks?

Tip: Find your target paper after reading the relevant section of the survey paper on regression test selection, downloadable from the following link:

http://www.promptedu.se/promptwp/wp-content/uploads/2016/03/Yoo.pdf

Assignment 2, Part B: Reflection of practical experience of using RTS techniques (0.5hp)

Objective

The objective of this assignment is to let students reflect on their industrial experience and prevalent industrial practices in using RTS techniques.

Please note that this part of the assignment is done in a <u>group of two students</u>. Groups will be made by the course responsible and displayed on the course webpage.

Reporting

Please send your answers in a written report (no more than <u>one</u> normal page) to <u>wasif.afzal@mdh.se</u>.

Description

- What is the practice of RTS in your current place of work or what does your previous experience tell you about it?

- Given that several RTS techniques were discussed in this course, how does this relate to state of practice?

- How can current practice of RTS be improved, given that you now know about different RTS techniques? What benefits do you foresee?