C1011 – Software Architecture

Assignment 3

(25 Points)

You are responsible for the evaluation of the software architecture you delivered in Assignment 2. You should use the Architecture Trade-off Analysis Method (ATAM) and deliver an architecture evaluation report. The student groups formed in the Assignment 2 need to collectively complete the assignment again. The score of each student on Assignment 3 will be determined with the group performance by considering individual contribution to the work.

DEADLINE: 11:59pm on (Monday) February 29, 2016

Assignment Deliverables

A single PDF file should be submitted per group. Your report should be in TEN pages (A4 size) or shorter and include the following deliverables:

Your report should include:

- A list of non-functional scenarios. They are mainly from your Assignment 2. You can add more scenarios. They should be organized in a utility tree (5 points). See Table 11.5 in the text book (2nd Edition) [1] for examples.

- Select 6 scenarios. For each scenario, perform an architecture approach analysis following the template in Figure 11.2 (You do not necessarily have to use a table format to organize all the elements). Your selected scenarios should be able to demonstrate the effectiveness or ineffectiveness of all your important design decisions (5 points).

- A list of sensitivity points and trade-off points (5 points).

- A list of risks and non-risks (5 points). A risk/non-risk is an architectural decision (see Chapter 11.2 [1] for definition).

- Individual remark should be complete by each student (about half page each) in a group (5 points), and contains two components:

  o A description of your personal experiences using the ATAM method.

  o A summary of your own contribution to the group work and report.

Notes:

1. There is no minimum length constraint for this assignment. Be concise and to the point.

2. You will be assessed based on your ability to apply ATAM rather than the amount of absolute correctness of the evaluation result.

[1] Software Architecture in Practice, 2nd Edition