I402A Software Architecture and Quality Assessment

Quizz 1

This assessment evaluates the following competencies:

- *SA201 – Define what is software quality and explain how it can be ensured*
- *SA202 – Understand and illustrate the links between a software architecture and its quality*
- *SA401 – Understand what is the conceptual integrity and take actions to ensure it a for project*
- *SA402 – Understand and discuss about the questions and dilemmas that a software architect could face*

Five affirmations are given for each assessed competency. For each of them, you have to decide whether it is true or false. To get a star for the competency, you must have the correct answer for the five affirmations.

SA201	True	False
It is possible to ensure some quality criteria just by choosing a right software architecture.	☐	☐
Choosing a layer architecture for a given software will always result in an increased maintainability.	☐	☐
For a search engine, such as Google, availability is an important quality criterion.	☐	☐
Decreasing the number of components of a software system always increases its quality.	☐	☐
The fact that a software system works as intended is a quality criterion.	☐	☐

SA202	True	False
An architecture choice can favour or penalise the performances of a software.	☐	☐
Choosing a layer architecture for a given software will always result in an increased maintainability.	☐	☐
There is always at least one architecture choice that optimises all the quality criteria.	☐	☐
The performance of a software system decreases as the number of components increases.	☐	☐
Writing more unit tests and having them pass increases the performance of a software system.	☐	☐

SA401	**True**	**False**
A software architect must ensure that the conceptual integrity of a software is preserved.	☐	☐
Having a uniform user interface throughout a software system is part of the conceptual integrity.	☐	☐
The conceptual integrity of a software with a lot of small independent features is for sure preserved.	☐	☐
The conceptual integrity of a software is a kind of a line of conduct to follow.	☐	☐
Implementation details of a software system are defined by the conceptual integrity.	☐	☐

SA402	**True**	**False**
A good software architect always has to plan the future and design for change.	☐	☐
A good software architecture imposes its constraints on the execution environment.	☐	☐
Demands from the business can always be ignored by the software architect.	☐	☐
A software architect has to make choices for the fundamental structure of a software.	☐	☐
A software architect may have to produce several view for the software architecture of a system.	☐	☐