

1

When is it useful to design the software architecture of a complex system?



It is useful even if the implementation is concluded and the system has entered the maintenance phase.

B

It is useful only if done (even if only partially) before the system's implementation is concluded, because if the system is already implemented, its implementation uniquely determines the architecture.

C

It is useful only if done (even if only partially) before the system's implementation is concluded, given that the architecture is used for restricting the implementation.

D

It is useful only if done (even if only partially) before the system passes all of the acceptance tests by the client, given that no more requirements changes will take place after that time.

2

The definition of software architecture, in the course book, is

*"The software architecture of a system is the set of structures needed to reason about the system, which comprise software elements, relations among them, and properties of both."*



In the context of this definition

A

The set of structures is needed because it is not possible to completely analyse a particular quality using a single type of structure.

B

There isn't any relation between the properties of the software elements and the ability to reason about the system.

C

The properties cannot be inferred from the structure.



To reason about a system is to verify whether the architecture fulfils the most relevant qualities of the system.

3

Consider the concepts of software architecture and software design. In this context, which of the following sentences is true?



Software architecture is the design that allows us to reason about the system's qualities.

B

Software design is a subconcept of software architecture.

C

Software design is related with the implementation.

D

The concepts do not differ.

4

Why it is important that the software architectures provides a basis for training?



All options are true.

B

To allow that new developers can learn about the system most relevant qualities without the details of the code.

C

Because the software architectures contains the most important decisions about the system that should be followed when implementing it.

D

Because the architecture is the shared understanding about the system which is relevant to foster the communication with new developers.

5

Martin Fowler refers that

*"a software architecture is the set of design decisions that must be made early in a project"*



This is a good definition, but we should be aware that the early decisions are not necessarily the right ones.

B

This is a good definition because the early decisions are embodied by the software architecture and they do not need to be changed in the future.

C

This is not a good definition because to design an architecture it is not necessary to make any decision.

D

This is not a good definition because we should delay the design decisions and focus on the system functionalities first.