Status	Finished
Started	Tuesday, 15 October 2024, 8:22 PM
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Duration	1 min 50 secs
Grade	**10.00** out of 10.00 (**100**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Suppose that we can only have the following architectures for a university management system, which is the best selection?

Select one:

- ○ a. MVC: the university data as model, kernel functions as controllers and others are views.
- ○ b. Client-server, each client is a computation station and the server is to provide and collect data: maximize the computation in the client.
- ◉ c. Repository: data and kernel components can be in the repository and other sub-systems can be separated.
- ○ d. Compiler: allow to compile data and computational results.

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Suppose that we can only have the following architectures for a child tracking app running on a mobile device, which is the best selection?

Select one:

- ◉ a. MVC: Model-View-Controller.
- ○ b. Repository: data and kernel components can be in the repository and other sub-systems can be separated.
- ○ c. Client-server, each client is a computation station and the server is to provide and collect data: maximize the computation in the client.
- ○ d. Compiler: allow to compile data and computational results.

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

To increase safety, which of the following is a good choice?

Select one:

- ○ a.   Localize safety-critical features in a small number of sub-system.
- ○ b.   Duplicate key components.
- ○ c.   Use fine-grain, replaceable components.
- ○ d.   All the other answers are correct.

Correct
Marks for this submission: 1.00/1.00.

Question 4

Correct

Mark 1.00 out of 1.00

Which of the following is correct about using architectural patterns?

Select one:

- ○ a.   In a software, only one pattern can be used.
- ○ b.   None of the other answers is correct.
- ○ c.   Each pattern can only be implemented in some programming language.
- ○ d.   Only famous patterns can be used.

Correct
Marks for this submission: 1.00/1.00.

Question 5
Correct
Mark 1.00 out of 1.00

To increase security, which of the following is a good choice?

Select one:

- a. Duplicate key components/data.
- b. Hide key components/data in layers.
- c. Localizing the key components/data and minimizing the interaction between those components.
- d. All the other answers are correct.

Correct
Marks for this submission: 1.00/1.00.

Question 6
Correct
Mark 1.00 out of 1.00

Which of the following architectural pattern can be used in general for information systems (multi-users, centralized data)?

Select one:

- a. Language processing system architecture: the Translator component is for checking syntax and semantic from the users, the Interpreter component is for executing verified commands from the users.
- b. Client-server architecture: clients are applications and the server is only for data.
- c. Layer architecture: user interface, user communications (and authentication), information retrieval, and system database layers.
- d. All the architectures in the other answers are good to be used.

Correct
Marks for this submission: 1.00/1.00.

Question 7

Correct

Mark 1.00 out of 1.00

To increase performance, which of the following is a good choice?

Select one:

- ○ a. Hide kernel functions in deep layers.
- ◉ b. Localizing the kernel functions and minimizing the interaction between components.
- ○ c. All the other answers are correct.
- ○ d. Duplicate kernel functions.

Correct

Marks for this submission: 1.00/1.00.

Question 8

Correct

Mark 1.00 out of 1.00

Suppose that we can only have the following architectures for an online course registration system, which is the best selection?

Select one:

- ○ a. Client-server, students can install the software on their personal computer/laptop: maximize the computation in the personal computer/laptop.
- ○ b. Compiler: allows to compile the registration into the language that can be understood by the system.
- ○ c. All the other answers are correct.
- ◉ d. Layer, the user-interface is on web: allows multi-platform and mutual registration (courses have limited number of seats).

Correct

Marks for this submission: 1.00/1.00.

Question 9

Correct

Mark 1.00 out of 1.00

To increase maintainability, which of the following is a good choice?

Select one:

- ○ a. Duplicate key components.
- ◉ b. Use fine-grain, replaceable components.
- ○ c. Localize safety-critical features in a small number of sub-system.
- ○ d. All the other answers are correct.

Correct

Marks for this submission: 1.00/1.00.

Question 10

Correct

Mark 1.00 out of 1.00

Suppose that we can only have the following architectures for a distributed computation system, which is the best selection?

Select one:

- ○ a. Layer, the user-interface is on web: allows multi-platform and mutual data in computation.
- ○ b. All the other answers are correct.
- ○ c. Compiler: allow to compile data and computational results.
- ◉ d. Client-server, each client is a computation station and the server is to provide and collect data: maximize the computation in the client.

Correct

Marks for this submission: 1.00/1.00.