

Object Oriented Analysis and Design - Part2(Design)

Version 3.1



QUESTION NO: 1

Which statement is true about elements within the subsystem and public visibility?

- A. Only the subset of elements that define the subsystems API should have public visibility.
- B. Only the subsystem proxy class should have public visibility.
- C. No elements inside the subsystem should have public visibility.
- D. Only the elements that reference external classes should have public visibility.

Answer: C

QUESTION NO: 2

What are the two types of dependency that can be used from a subsystem? (Choose two.)

A. <<use>>> dependency to a subsystem interface

B. an <<import>> dependency to a package containing used classes

C. a <<manifest>> relationship to a node in the Deployment model

D. a << realize>> relationship to one or more collaboration occurrences

Answer: A, B

QUESTION NO: 3

Which task is performed during use-case realization refinement?

- A. identify participating classes
- B. allocate responsibilities among classes
- C. model messages between classes
- D. model associated class relationships

Answer: D

QUESTION NO: 4

Which statement is true about design subsystems?

- A. They partially encapsulate behavior.
- B. They represent an independent capability with clear interfaces.
- C. They model a single implementation variant.
- D. They can only contain design classes.

Answer: B

OUESTION NO: 5

Given the following configuration: Package A, which contains class a Class is in the presentation



layer. Package B, which contains a class bClass and an interface bInterface is in the business layer. Package C, which contains cClass is in the data layer. Which is a poor practice?

- A. aClass calls a method in bClass.
- B. aClass has an attribute of type cClass.
- C. aClass realizes bInterface.
- D. bClass realizes bInterface.

Answer: B

QUESTION NO: 6

Which process document describes design mechanisms, any mappings between design mechanisms, and the details regarding their use?

- A. Software Architecture Document
- B. Design Guidelines
- C. Vision Document
- D. Software Development Plan

Answer: C

QUESTION NO: 7

In the state of a state machine, a behavior can be defined _____.

- A. before reaching a state
- B. upon reaching a state
- C. upon leaving a state
- D. inside a state

Answer: B, C, D

QUESTION NO: 8

What is a gate?

A. a parameter that represents a message that crosses the boundary of an interaction or interaction fragment

- B. a defined protocol for accessing the internals of a subsystem
- C. a decision point in a state machine that has more than two alternatives
- D. a set of checkpoints each subsystem design must satisfy before it can be assigned for implementation

Answer: A

QUESTION NO: 9

When identifying design elements, a simple analysis class will map to a(n)_____.



- A. active class
- B. interface
- C. design class
- D. subsystem

Answer: C

QUESTION NO: 10

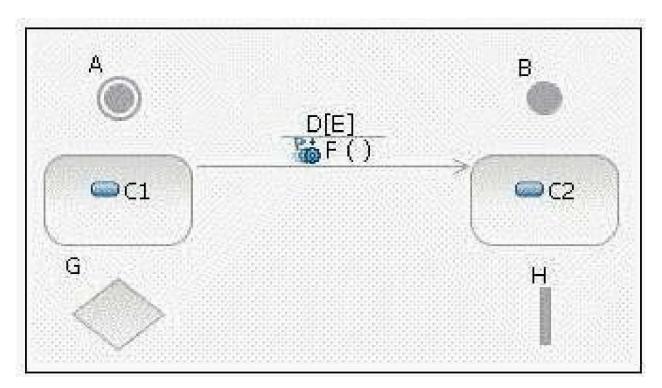
In which OOAD activity is the distribution mechanism identified?

- A. Identify Design Elements
- B. Identify Design Mechanisms
- C. Class Design
- D. Architectural Analysis

Answer: B

QUESTION NO: 11

Click on the exhibit button. In the diagram, what is E?



- A. fork
- B. initial state
- C. decision
- D. transition
- E. final state
- F. event



G. state

H. guard condition

Answer: H

QUESTION NO: 12

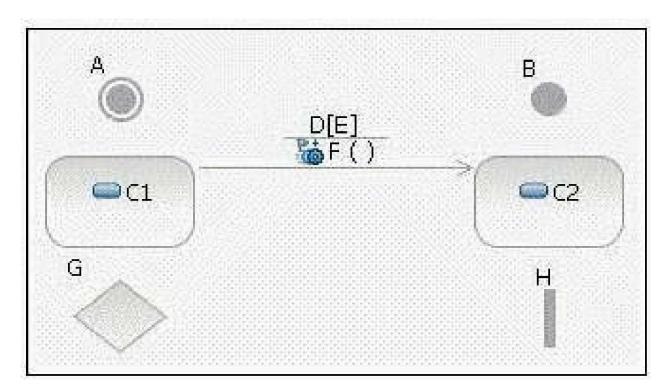
Identify Design Elements is part of which workflow detail?

- A. Define a Candidate Architecture
- B. Design Components
- C. Perform Architectural
- D. Refine the Architecture

Answer: D

QUESTION NO: 13

Click on the exhibit button. In the diagram, what is H?



- A. fork
- B. initial state
- C. decision
- D. transition
- E. final state
- F. event
- G. state



H. guard condition

Answer: A

QUESTION NO: 14

What is the relationship between operation and method?

- A. The terms are synonymous.
- B. An operation describes how a method is implemented.
- C. A method describes how an operation is implemented.
- D. There is no relationship.

Answer: C

QUESTION NO: 15

Why would you use subsystem interfaces rather than subsystem instances on sequence diagrams?

- A. to make it easier to model subsystems during Subsystem Design
- B. to make use-case realizations easier to change
- C. to ease sequence diagram maintenance when message signatures change
- D. to reduce the number of classes needed to implement the subsystem

Answer: B

QUESTION NO: 16

Which is an input artifact to the Identify Design Elements activity?

- A. Deployment Model
- B. Implementation Model
- C. Reference Architecture
- D. Software Architecture Document

Answer: D

QUESTION NO: 17

What is an important consideration when allocating processes to nodes?

- A. minimizing network traffic
- B. minimizing power consumption
- C. utilizing all available nodes
- D. physical distance between nodes

Answer: A

QUESTION NO: 18

Which type of mechanism is a connector on a deployment diagram?



- A. backup
- B. communication
- C. transaction
- D. computation

Answer: B

QUESTION NO: 19

A design mechanism _____.

- A. captures the key aspects of a solution in a way that is implementation-independent
- B. specifies the exact implementation of the mechanism and is bound to a certain technology, implementation language, or vendor
- C. is the same as a design pattern
- D. assumes some details of the implementation environment, but is not tied to a specific implementation

Answer: D

QUESTION NO: 20

When identifying interfaces during the Identify Design Elements activity, which statement is true?

- A. Classes should not realize an interface.
- B. Each subsystem realizes only one interface.
- C. Interfaces should be identified before subsystems are created.
- D. Interfaces should be packaged separately from the elements that realize them.

Answer: D

QUESTION NO: 21

Additional subsystems can be discovered during Use Case Design by noting _____.

A. common subflows between objects on several sequence diagrams

- B. similar objects on several sequence diagrams
- C. a consistent series of state transitions for multiple classes involved in a use-case realization
- D. the same design classes involved in more than one use-case realization

Answer: A

QUESTION NO: 22

Which activities are performed during Use Case Design?

- A. converting analysis classes into design classes and design subsystems
- B. describing persistence-related behavior



- C. describing object interactions that implement interface operations
- D. simplifying sequence diagrams using design classes

Answer: B

QUESTION NO: 23

On a sequence diagram, what is used to represent a specific subsystem?

A. an interface that the subsystem realizes

B. a subsystem proxy

C. a subsystem component

D. a subsystem class

Answer: C

QUESTION NO: 24

Which UML elements are used to describe the physical architecture of a system?

A. classes and relationships

B. objects and messages

C. subsystems and dependencies

D. nodes and connectors

Answer: D

QUESTION NO: 25

Which artifact is used to describe use-case realizations?

A. textual use-case descriptions

B. communication diagrams

C. state charts

D. activity diagrams

Answer: B

QUESTION NO: 26

What defines a subsystems responsibilities?

A. its internal class behavior

B. the operations of the interfaces it implements

C. the use-case realizations in which the subsystem appears

D. the operations on a class contained within the subsystem

Answer: B



QUESTION NO: 27

Which is a design mechanism?

- A. Persistency
- B. ObjectStore Object-oriented Database
- C. Distribution
- D. Remote Method Invocation

Answer: D

QUESTION NO: 28

To begin identifying design mechanisms, you start by categorizing analysis mechanisms. What are three steps in the process of Categorizing Analysis Mechanisms? (Choose three.)

- A. identify characteristic profiles for each analysis mechanism
- B. identify the clients of each analysis mechanism
- C. assign a vendor implementation to each analysis mechanism
- D. group clients according to their use of characteristic profiles

Answer: A, B, D

QUESTION NO: 29

In Subsystem Design, what happens in the step, Distribute Subsystem Responsibilities?

- A. The subsystems responsibilities are allocated to its internal design elements.
- B. Each subsystem is checked to ensure it has a consistent set of responsibilities and inconsistent responsibilities are reassigned to other subsystems.
- C. Libraries and external APIs are identified to realize the subsystem behavior.
- D. Distribution mechanisms are detailed for exposing subsystem interfaces.

Answer: A

QUESTION NO: 30

Which entity has a well-defined boundary and identity that encapsulates state and behavior?

- A. class
- B. object
- C. component
- D. package

Answer: B

QUESTION NO: 31

What is the purpose of the Identify Design Mechanisms activity?



- A. to refine the analysis mechanisms and specify the exact implementation of the mechanism
- B. to provide a conceptual set of services that is used by analysis objects
- C. to refine analysis mechanisms into design mechanisms, based on the constraints imposed by the implementation environment
- D. to define design placeholders in the architecture so the architecting effort remains focused and is less likely to become sidetracked

Answer: C

QUESTION NO: 32

In a dependency, through what reference does the client class gain visibility to the supplier?

- A. local reference
- B. parameter reference
- C. global reference
- D. field reference

Answer: A, B, C

QUESTION NO: 33

In which Analysis and Design activity are subsystems mapped to analysis classes?

- A. Architectural Analysis
- B. Identify Design Elements
- C. Identify Subsystems
- D. Incorporate Existing Design Elements

Answer: B

QUESTION NO: 34

Which design element is used to represent a concurrent object?

- A. active class
- B. capsule
- C. design class
- D. event

Answer: A

QUESTION NO: 35

The Describe Distribution activity is where the processes defined in the Describe the Run-time Architecture activity are allocated to _____.

- A. physical nodes
- B. components