

Question Set

❖ Architectural driver

- What is architecture driver?
- Give a few specific examples of architectural drivers for a system OOO
- How can you make sure that the architectural drivers are reflected into the architecture design?

❖ Use Case

- What is use case model?
- What are criteria for identifying good use case?

❖ QA Scenario

- What are the six parts for describing a quality attribute?
- Give a specific example of QA Scenario for a QA such as performance

❖ Component

- What is component?
- What is the difference between classes and components?
- What is the difference between components and packages?

❖ What strategies can be used for performing decomposition?

❖ Tactics

- What is tactics?
- What is the difference between tactics from patterns?
- Give a few specific examples of tactics for performance
- Give a few specific examples of tactics for available/reliability

❖ Architectural Patterns

- What is architectural pattern?
- Give a couple of examples of architecture patterns? What are the advantages of those patterns?

❖ Design Patterns

- What is design pattern?
- For what are GoF Patterns used? That is, What quality can be achieve through GoF Patterns?
- Strategy pattern
 - ✓ What is strategy pattern?
 - ✓ What is the difference between strategy pattern and command pattern?
 - ✓ What is the difference between strategy pattern and state pattern?
 - ✓ What is the difference between strategy pattern and observer pattern?
- Template method pattern
 - ✓ What is template method pattern?
 - ✓ What is the difference between strategy pattern and template method pattern

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- Factory method pattern
 - ✓ What is factory method pattern?
 - ✓ What is the difference between factory method pattern and abstract factory pattern?
 - Façade pattern
 - ✓ What is Façade pattern?
 - ✓ What is the difference between Façade pattern and mediator pattern?
 - ✓ What is the difference between Façade pattern and composite pattern?

❖ Cohesion

- What is it?
- How to measure it for a function, a class, a package, and a component?

❖ Coupling

- What is it?
- How to measure it for a function, a class, a package, and a component?

❖ SOLID

- What is OCP?
- How to achieve OCP?
- What is SRP?
- What is the difference between SRP and cohesion?
- What is DIP?

❖ Refactoring

- What is the goal of refactoring?
- Give a few refactorings to improve cohesion of classes
- Give a few refactorings to improve coupling of classes

- What is the difference between the following refactorings
 - ✓ Replace type code with class
 - ✓ Replace type code with subclass
 - ✓ Replace type code with state/strategy