**Object-Oriented Systems Analysis and Design Using UML, 2/e**

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Steve McRobb, Senior Lecturer, De Montfort University  
Ray Farmer, Associate Dean, Coventry University

**Class Design**

**Self-test Questions**

Top of Form

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **1** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif When objects are being designed in detail the signature of each operation has to be specified. Which of the following statements is consistent with the term operation signature? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Each operation in a class has the same signature. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | The operation name and the number of parameters are part of the operation signature. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A class may not have two operations with the same name. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **2** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Which of the following best describes when primary operations should be shown on class diagrams? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | All primary operations are shown on class diagrams in design. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Primary operations are shown in class diagrams only if they modify attribute values. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Primary operations are shown on design class diagrams if they are part of the public interface of the class. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **3** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Encapsulation is best enforced by which of the following decisions regarding object visibility? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | All attributes and operations are private. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | All attributes are private and all operations are public. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | All attributes are private and public operations are kept to a minimum. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **4** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif When is a UML interface used? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | It describes boundary classes. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | It describes an interface that a class may offer to another class. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | It describes the human-computer interface. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **5** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Good coupling is best characterised by which of the following? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Keeping the number of message types between objects to a minimum. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Ensuring that sub-classes are not strongly linked to their superclass. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Ensuring that operations in the same class are linked. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **6** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Which of the following is a beneficial consequence of good cohesion in a class? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | The attributes in the class will only be accessed by the operations of that class. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | The class will exhibit high levels of encapsulation. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | The operations in the class will be easier to maintain. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **7** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif The Liskov Substitution Principle is best described by which of the following? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A derived object may be treated as if it is the base object. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A derived object should be replaced by its base object. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Derived objects should be used instead of base objects. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **8** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Which of the following statements best describes what is involved in the task of designing associations? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | It is concerned with how links between objects should be implemented. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Its main focus is determining the multiplicity of the associations. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | It is concerned with specifying operations that may use the links between objects. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **9** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif How many collection classes could sensibly be used to implement a two-way many-to-many association? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Two or more. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Two. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | One. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **10** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif If there is a dependency constraint between two or more attributes which of the following statements applies? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | The value of none of the attributes should be changed. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | If the value of one of the attributes is changed then all the others must be updated by one or more synchronizing operations. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Any change to the value of any of the attributes may require the other dependent attributes to be updated by one or more synchronizing operations. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **11** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Which of the following statements best describe the application of referential integrity during object design? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | An object may only refer to another object if they share a link. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | When an object is deleted all objects to which it refers must be deleted. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Referential integrity only applies for one-to-one associations. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |

# Results Reporter

Out of 11 questions, you answered 7 correctly, for a final grade of 64%.

|  |  |
| --- | --- |
| 7 correct (64%) | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/bg.gif |
| 4 incorrect (36%) | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/bg.gif |
| 0 unanswered (0%) | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/bg.gif |

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| --- |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Your Results: | | | | |
| The correct answer for each question is indicated by a This is the correct answer.. | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **1** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **When objects are being designed in detail the signature of each operation has to be specified. Which of the following statements is consistent with the term operation signature?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **A)** | Each operation in a class has the same signature. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **B)** | **The operation name and the number of parameters are part of the operation signature.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | A class may not have two operations with the same name. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **2** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following best describes when primary operations should be shown on class diagrams?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **A)** | All primary operations are shown on class diagrams in design. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | Primary operations are shown in class diagrams only if they modify attribute values. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **C)** | **Primary operations are shown on design class diagrams if they are part of the public interface of the class.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **3** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Encapsulation is best enforced by which of the following decisions regarding object visibility?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **A)** | All attributes and operations are private. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | All attributes are private and all operations are public. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **C)** | **All attributes are private and public operations are kept to a minimum.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **4** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **When is a UML interface used?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | It describes boundary classes. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | **It describes an interface that a class may offer to another class.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | It describes the human-computer interface. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **5** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Good coupling is best characterised by which of the following?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | **Keeping the number of message types between objects to a minimum.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | Ensuring that sub-classes are not strongly linked to their superclass. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | Ensuring that operations in the same class are linked. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **6** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following is a beneficial consequence of good cohesion in a class?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | A) | The attributes in the class will only be accessed by the operations of that class. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | The class will exhibit high levels of encapsulation. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | **The operations in the class will be easier to maintain.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **7** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **The Liskov Substitution Principle is best described by which of the following?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | **A derived object may be treated as if it is the base object.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | A derived object should be replaced by its base object. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | Derived objects should be used instead of base objects. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **8** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following statements best describes what is involved in the task of designing associations?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **A)** | **It is concerned with how links between objects should be implemented.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **B)** | Its main focus is determining the multiplicity of the associations. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | It is concerned with specifying operations that may use the links between objects. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **9** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **How many collection classes could sensibly be used to implement a two-way many-to-many association?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **A)** | Two or more. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **B)** | **Two.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | One. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **10** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **If there is a dependency constraint between two or more attributes which of the following statements applies?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **A)** | The value of none of the attributes should be changed. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | If the value of one of the attributes is changed then all the others must be updated by one or more synchronizing operations. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **C)** | **Any change to the value of any of the attributes may require the other dependent attributes to be updated by one or more synchronizing operations.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **11** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following statements best describe the application of referential integrity during object design?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **A)** | **An object may only refer to another object if they share a link.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | When an object is deleted all objects to which it refers must be deleted. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **C)** | Referential integrity only applies for one-to-one associations. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |