Take Assessment: Practical Quiz 3

Please answer the following question(s).
If the assessment includes multiple-choice questions, click the "Submit Answers" button when you have completed those questions.

You have 120 minutes to take this assessment.
Please complete this assessment by Thu Dec 20 2007 21:58:10 GMT+0800.

1. Go to bottom of question.

Computer Class Diagram

Prerequisites, Goals, and Outcomes

Prerequisites: Before you begin this exercise, you need mastery of the following:

- *UML*
  - Knowledge of class diagram notation
- *Object-Oriented Design*
  - Knowledge of the association relationship

Goals: Reinforce the your ability to model associations between classes using UML

Outcomes: You will master the following skills:

- Produce UML class diagrams that model associations between classes

Description

Use Eclipse, Violet, PowerPoint, or another tool of your choosing to produce a UML class diagram that models the following personal computer:

- The personal computer consists of a monitor, a system box, a keyboard, and a mouse.
- The system box consists of a chassis, zero or more hard disks,

and a motherboard.
- The motherboard consists of one processor and one memory.

The components of the personal computer contain the following information:

- Personal computer:
  - A string that represents the name of the model
- Monitor:
  - A double that represents the size of the monitor in inches
- Keyboard:
  - A string that represents the type of connector ("PS/2" or "USB")
- Mouse:
  - An integer that represents the number of mouse buttons
  - A string that represents the type of connector ("PS/2" or "USB")
- Hard disk:
  - A double that represents the storage capacity in megabytes
  - A double that represents the rotational speed in revolutions per minute
- Chassis:
  - An integer that represents the number of bays
  - Three double values that represent the dimensions (height, width, and depth) in inches
  - A double that represents the power supply rating in watts
- Processor:
  - A string that represent the processor name
  - An integer that represents the processor speed in hertz
  - An integer that represents the bus speed in hertz
- Memory:
  - A string that represents the architecture ("DDR", "RDRAM", or "SDRAM")
  - An integer that represents the amount of memory in bytes

The UML class diagram should include class attributes, class associations, association multiplicities, and association attributes. Use Sun's coding conventions when naming classes and attributes.

Save the UML class diagram in a SVG, GIF, or JPG format in a file named *computer-uml*.

Submission

Upon completion, submit **only** the SVG, GIF, or JPG file *computer-uml*. The extension of this file will depend on the format of the image.

Go to top of question.

File to submit: Upload File | Forward File | Refresh | Ready for Grading

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2. Go to bottom of question.

Animals Class Diagram

Prerequisites, Goals, and Outcomes

Prerequisites: Before you begin this exercise, you need mastery of the following:

- *UML*
  - Knowledge of class diagram notation
- *Object-Oriented Design*
  - Knowledge of the specialization/generalization relationship

Goals: Reinforce the your ability to model specialization/generalization relationships between classes using UML

Outcomes: You will master the following skills:

- Produce UML class diagrams that model specialization/generalization relationships between classes

Description

Use Eclipse, Violet, PowerPoint, or another tool of your choosing to produce a UML class diagram that shows the

specialization/generalization relationships between the following classes. Use the shortest form to show only the name of each class. Use Sun's coding conventions when naming classes:

- Fish
- BlueWhale
- Dog
- Animal
- Eagle
- Shark
- Mammal
- GrayWhale
- Bird
- Whale

Use the following resource to obtain information about these names:

- eNature.com

Save the UML class diagram in a SVG, GIF, or JPG format in a file named *animals-uml*.

Submission

Upon completion, submit **only** the SVG, GIF, or JPG file *animals-uml*. The extension of this file will depend on the format of the image.

Go to top of question.

File to submit: Upload File | Forward File | Refresh | Ready for Grading

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Go to top of assessment.