



Your work has been saved and submitted

Written Jan 7, 2025 8:44 PM - Jan 7, 2025 9:06 PM Attempt 1 of 2

Attempt Score **45 / 45 - A**

Overall Grade (Highest Attempt) **45 / 45 - A**

Question 1

3.75 / 3.75 points

The symbol 0..1 in the following object relationship diagram represents what type of relationship? Select one.



- ☐ None to one
- ☐ None to many
- ☐ One to many
- ☐ None of the above

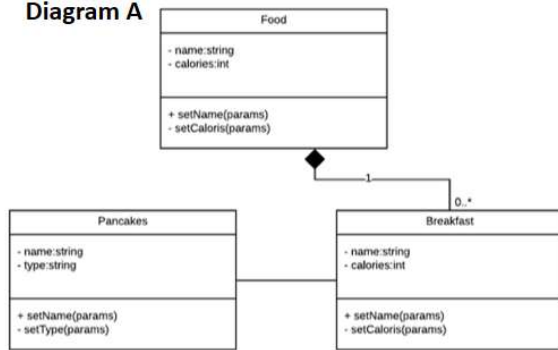
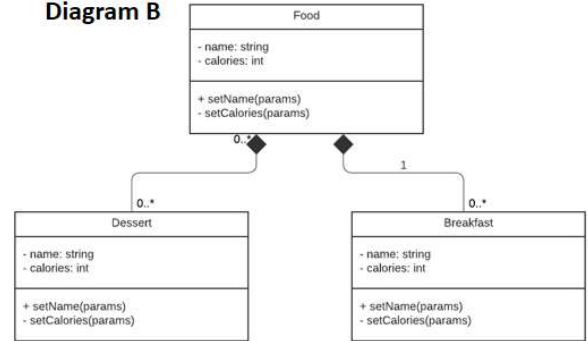
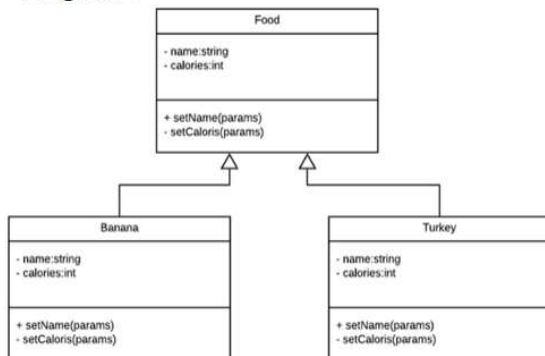
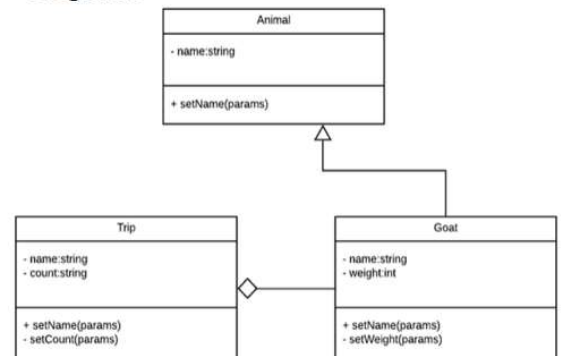
▼ Hide question 1 feedback

Feedback

The correct answer is none to one. The relationship could also be expressed in words as zero or one.

Question 2

3.75 / 3.75 points

Diagram A**Diagram B****Diagram C****Diagram D**

Identify the UML class diagram which only demonstrates inheritance. [A text version is available.](#) Select one.

- ☐ Diagram C
- ☐ Diagram B
- ☐ Diagram D
- ☐ Diagram A

▼ Hide question 2 feedback

Feedback

In Diagram C, the Banana subclass and Turkey subclass inherit from the Food class. This is denoted by the open arrow. Diagram D demonstrates inheritance because the Goat subclass inherits from the Animal class, but Diagram D also demonstrates another object oriented programming principle.

Question 3

3.75 / 3.75 points

Diagram A

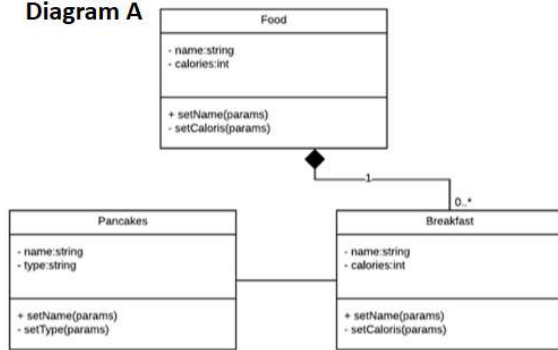


Diagram B

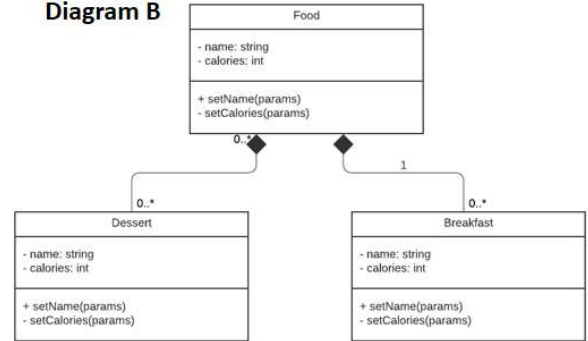


Diagram C

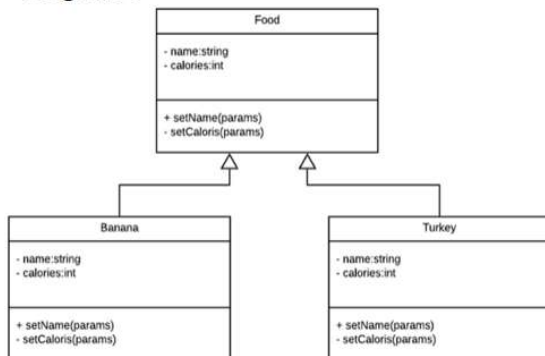
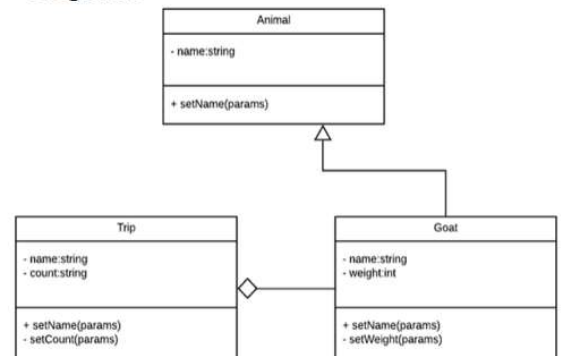


Diagram D



Identify the UML class diagram which demonstrates association. [A text version is available.](#) Select one.

- ☐ Diagram A
- ☐ Diagram C
- ☐ Diagram D
- ☐ Diagram B

▼ Hide question 3 feedback

Feedback

Diagram A demonstrates an association. A single line between classes demonstrates an association, as shown between the Pancake and Breakfast classes.

Question 4

3.75 / 3.75 points

Match the symbols to their meaning.

Instructions: Choose your responses from the drop-down menus below. Response options cannot be used more than once.

2 _____

4 _____

1 _____

3 _____

1. Composition
2. Association
3. Aggregation
4. Inheritance

▼ Hide question 4 feedback

Feedback

The correct answers are: 1. Composition - Line with filled in diamond, 2. Association - straight line, 3. Aggregation - Line with empty diamond, 4. Inheritance - Line with empty arrowhead. These are the standard class diagram symbols.

Question 5

3.75 / 3.75 points

The symbol 0..* in the following object relationship diagram represents what type of relationship? Select one.



- ☐ None to many
- ☐ None of the above
- ☐ None to one
- ☐ One to many

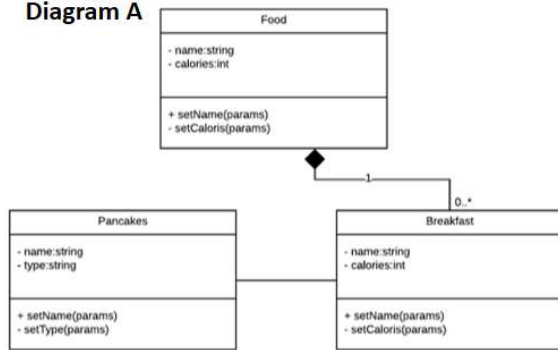
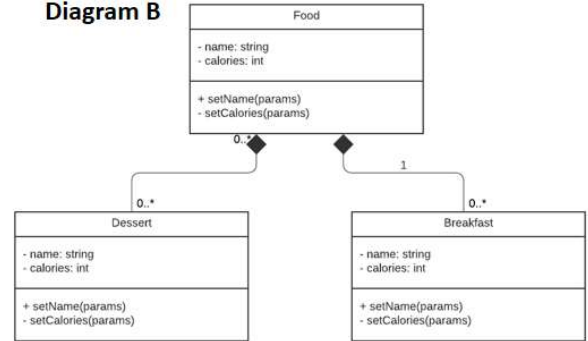
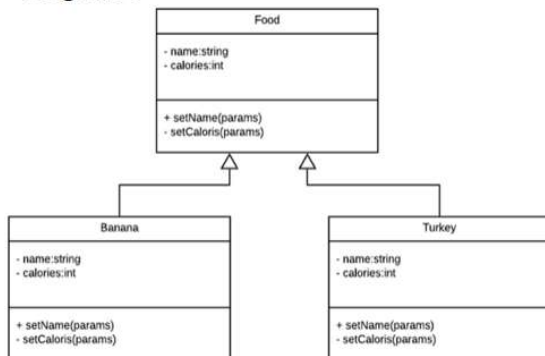
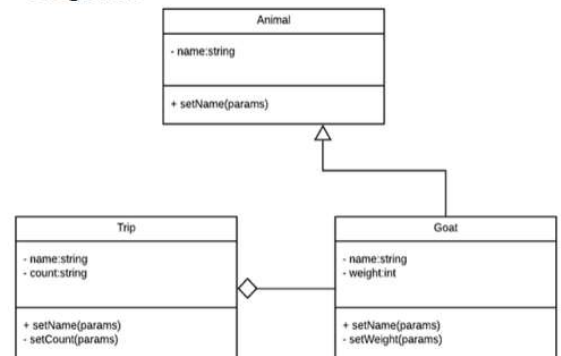
▼ Hide question 5 feedback

Feedback

The correct answer is none to many. 0 is none and * is the symbol for 1 or more (many).

Question 6

3.75 / 3.75 points

Diagram A**Diagram B****Diagram C****Diagram D**

Identify the UML class diagram which demonstrates aggregation. [A text version is available](#). Select one.

- ☐ Diagram C
- ☐ Diagram D
- ☐ Diagram B
- ☐ Diagram A

▼ Hide question 6 feedback

Feedback

Diagram D demonstrates aggregation. Aggregation is denoted by the open diamond between the Goat and Trip classes. Trip is a separate class, and Goat is a subclass. The Trip class is composed of multiples of the Goat subclass. This makes sense as a trip is a herd of goats.

Question 7

3.75 / 3.75 points

The keyword “this” in Java refers to the child of the current parent object. The term “this” demonstrates a useful keyword in Java. Is the statement true or false?

- ☐ True
- ☐ False

▼ Hide question 7 feedback

Feedback

The statement is false. The keyword "this" refers to the current object in Java.

Question 8

3.75 / 3.75 points



This symbol represents the initial state. Is this true or false?

- ☐ True
☐ False

▼ Hide question 8 feedback

Feedback

This statement is true. A filled circle represents state diagramming, which is different from class diagramming. This is the standard symbol for the initial step of a state diagram.

Question 9

3.75 / 3.75 points



This symbol represents an independent relationship between child classes. Is this true or false?

- ☐ True
☐ False

▼ Hide question 9 feedback

Feedback

This statement is false. This symbol, the double-sided arrow, would represent a dependent relationship. However, this is not a common symbol that is used in UML. A more common symbol used in UML to show association is a straight line between classes. The only way to demonstrate an association between parent and child classes is through inheritance (an open arrow symbol).

Question 10

3.75 / 3.75 points

Match the symbols to their meaning.

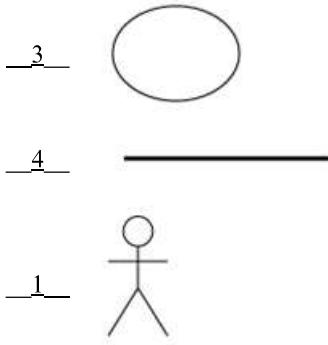
Instructions: Choose your responses from the drop-down menus below. Response options cannot be used more than once.

2



1. Actor
2. System
3. Use Case Item

4. Relationship



▼ Hide question 10 feedback

Feedback

The correct answers are: 1. Actor - stick figure, 2. System - box, 3. Use Case Item - Oval, 4. Relationship - straight dark line. These are the standard class diagram symbols. You would utilize a use case to discover the objects that might be used to develop a system. A use case diagram helps to explain the system data and processing flow in a format that is easy to use and understand.

Question 11

3.75 / 3.75 points

A class diagram is a behavioral diagram. It demonstrates one of the 14 UML diagram types. Is this true or false?

- ☐ True
- ☐ False

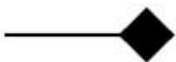
▼ Hide question 11 feedback

Feedback

This statement is false. There are 14 UML diagram types which are categorized into behavioral and structural diagrams. A class diagram is structural and demonstrates the structured relationship between variables, common methods, and subclasses.

Question 12

3.75 / 3.75 points



This symbol represents a composition relationship between objects. Is this true or false?

- ☐ True
- ☐ False

▼ Hide question 12 feedback

Feedback

This statement is true. This symbol, a line with a filled in diamond, is the standard diagram component to represent various relationships between objects. The relationship between

objects can be a "none to one" or "many to one" relationship.