

# Quiz: Conceptual Models (ORM)

Due Jul 4 at 11:59pm

Points 100

Questions 20

Time Limit 25 Minutes

Allowed Attempts 3

## Instructions

Based on videos, readings, class notes, Quizlet study set, and examples provided.

Take the Quiz Again

## Attempt History

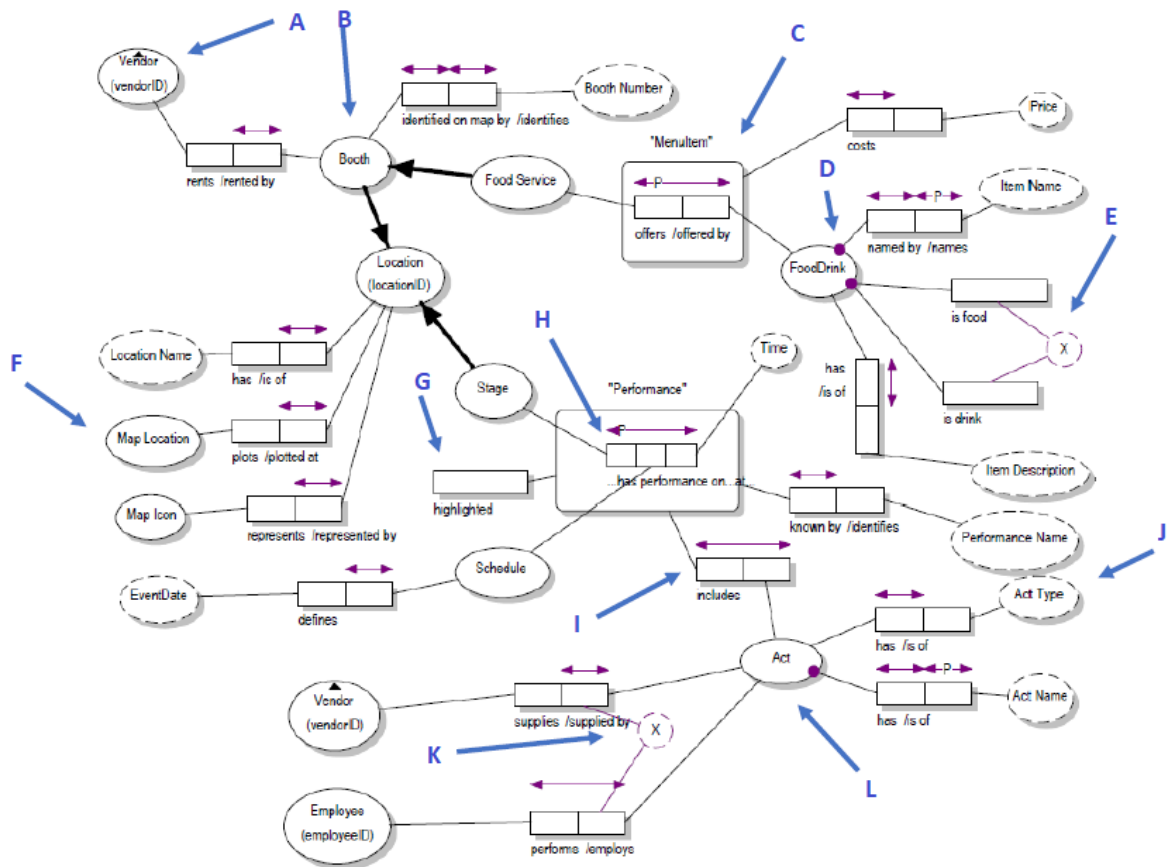
	Attempt	Time	Score
LATEST	<a href="#">Attempt 1</a>	16 minutes	56.67 out of 100

Score for this attempt: **56.67** out of 100  
Submitted Jul 4 at 4:57pm  
This attempt took 16 minutes.

Question 1

0 / 5 pts

What does the (X) indicate near "E" or "K"?



You Answered

☒ Nothing - invalid syntax

☐ Both roles required together

☐ Mandatory roles

Correct Answer

☐ Exclusionary roles

## Question 2

5 / 5 pts

Inheritance is most closely associated with type of relationship?

Correct!

☒ IS A

☐ Mandatory

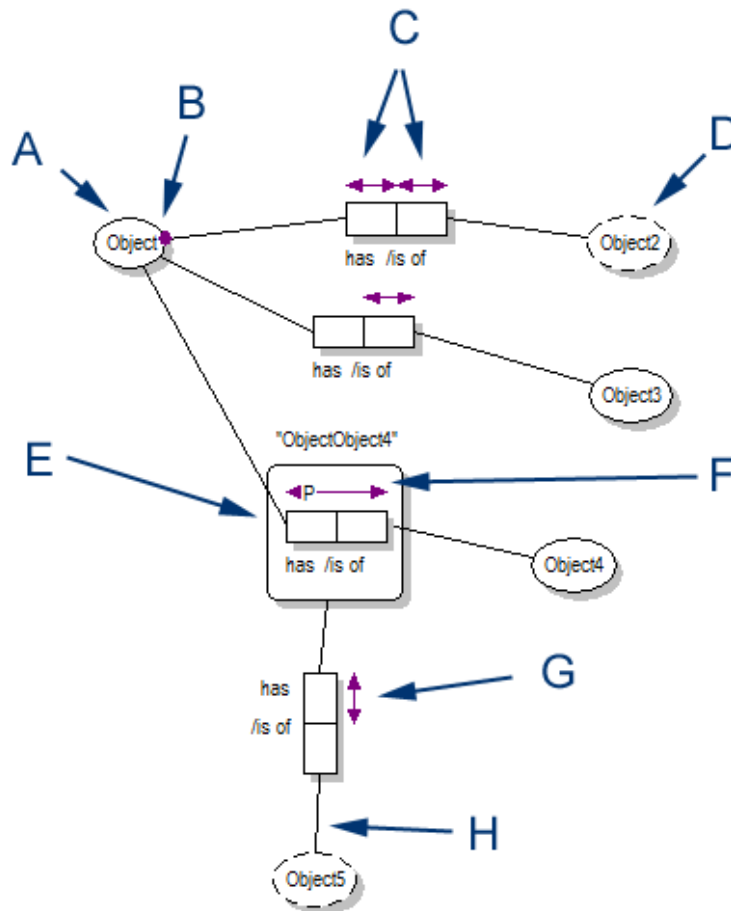
☐ HAS A

- ☐ Aggregation

### Question 3

5 / 5 pts

Which arrow best identifies a "mandatory constraint"?



☐ C

☐ F

☐ G

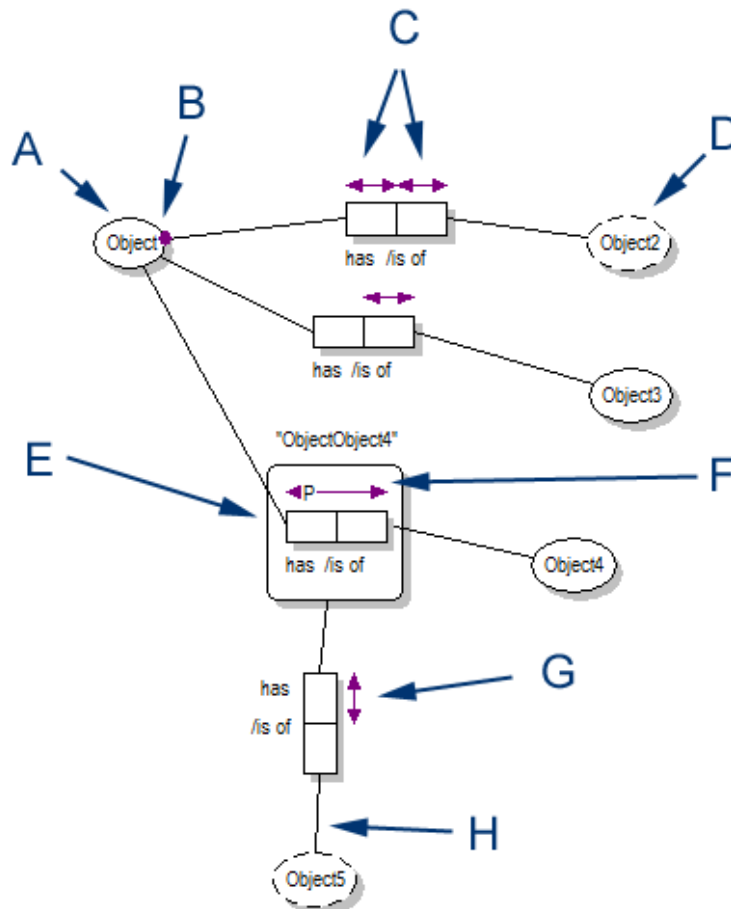
☒ B

Correct!

## Question 4

5 / 5 pts

Reading from left to right, what is the cardinality of the relationship identified by "C":



Correct!

- ☒ One to One
- ☐ Many to One
- ☐ One to Many
- ☐ Many to Many

## Question 5

0 / 5 pts

An *elementary fact* is most closely related with which ORM element?

You Answered

☒ Entity

Correct Answer

☐ Predicate

☐ Constraint

☐ Value

### Question 6

5 / 5 pts

The structured language equivalent expression of the data requirements embodied by ORM are called:

☐ Functional dependencies

☐ Functional requirements

☐ User stories

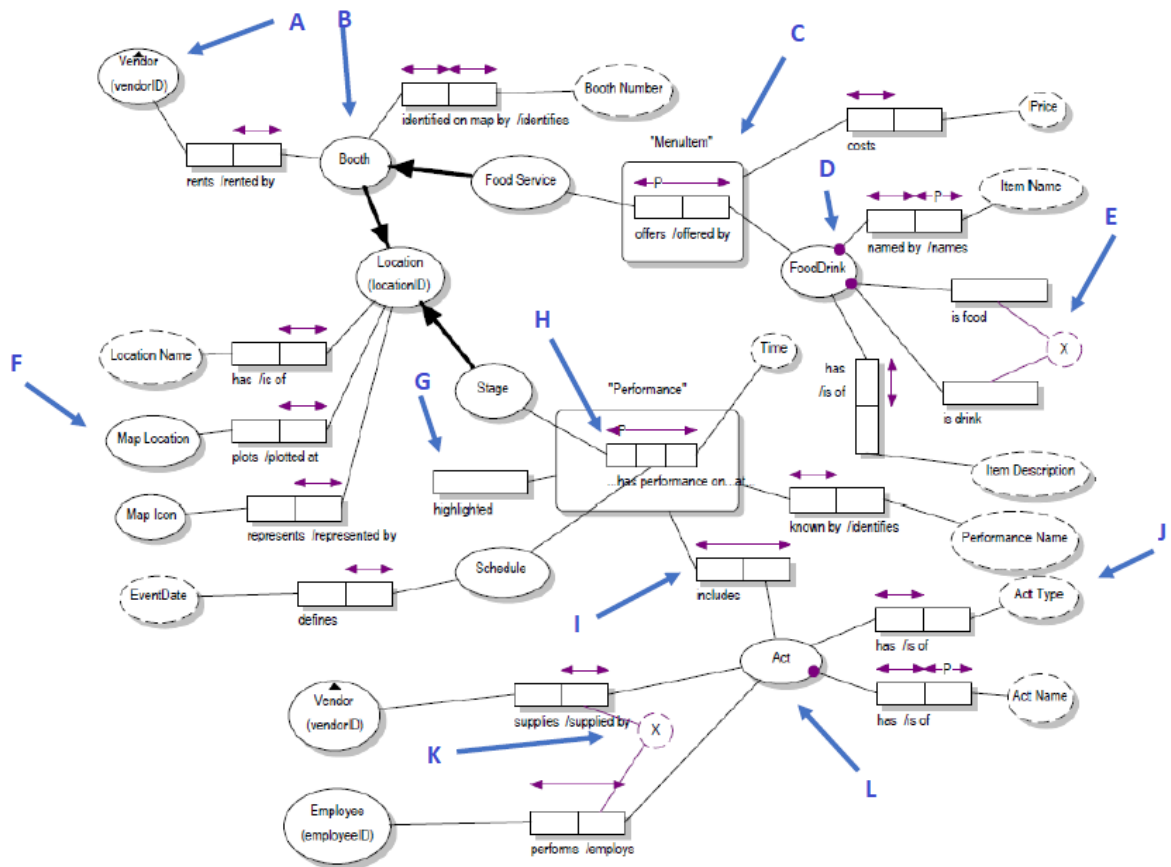
Correct!

☒ Elementary facts

### Question 7

0 / 5 pts

Is "G" a valid predicate?



- ☐ Yes, because Performance is a nested entity
- ☐ No, because it does not have a uniqueness constraint
- ☐ No, because it does not have a mandatory constraint
- ☐ Yes, it's a unary predicate

Correct Answer

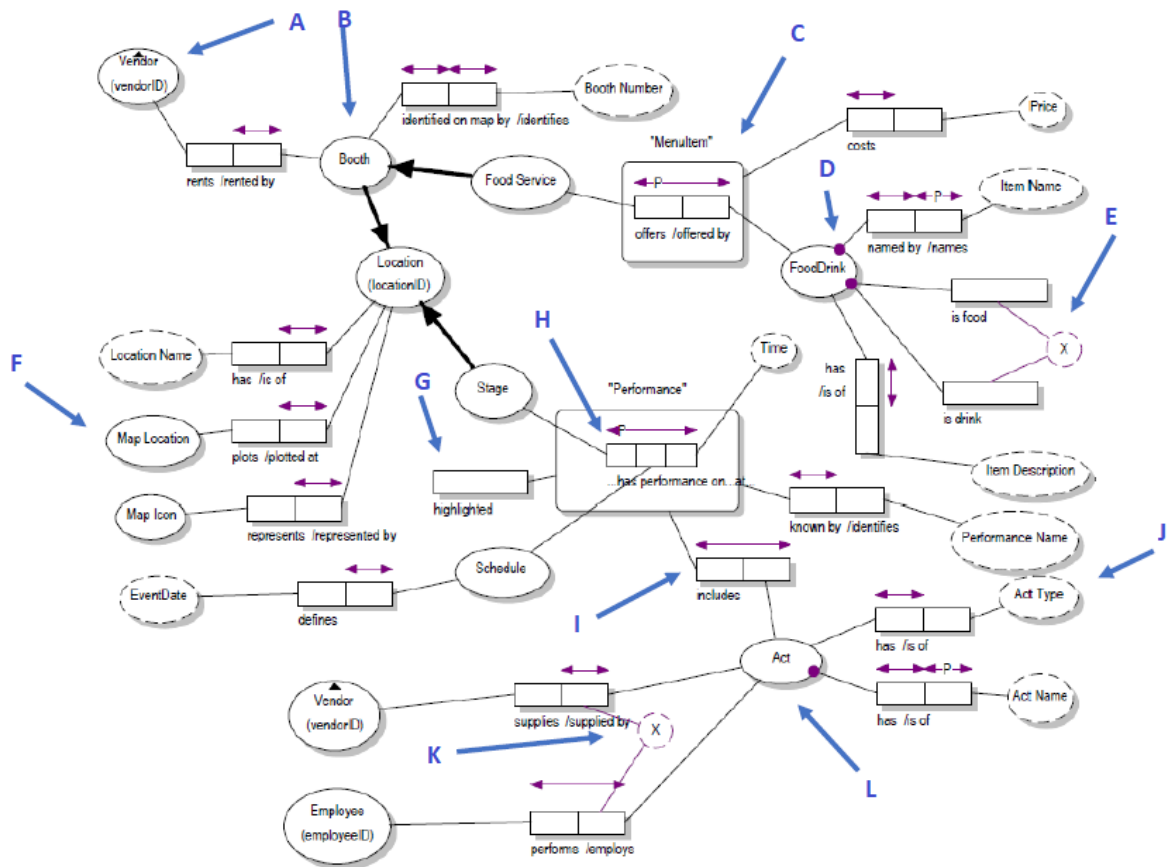
You Answered

- ☒ No, because it's not a binary predicate

## Question 8

0 / 5 pts

What is the primary key of "Booth" (near "B")?



Correct Answer

☐ locationID

☐ MenuItem

You Answered

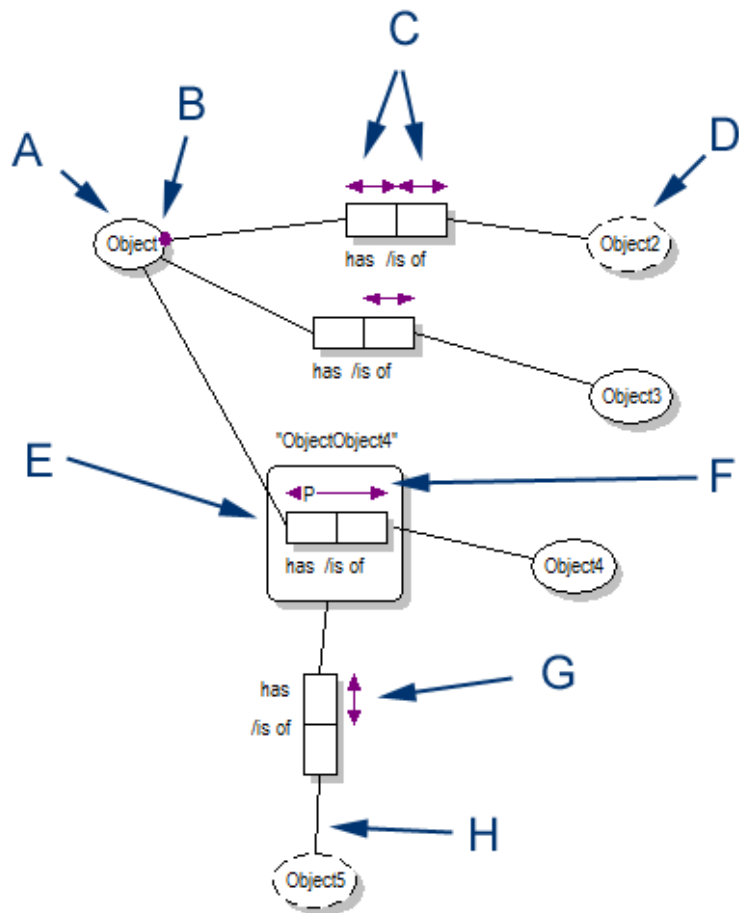
☒ Booth Number

☐ Nothing (not defined)

## Question 9

5 / 5 pts

The red two-sided arrows at "C", "F", and "G" are called:



- ☐ Cardinality indicators
- ☐ Mandatory constraints
- ☐ Predicates
- ☒ Uniqueness constraints

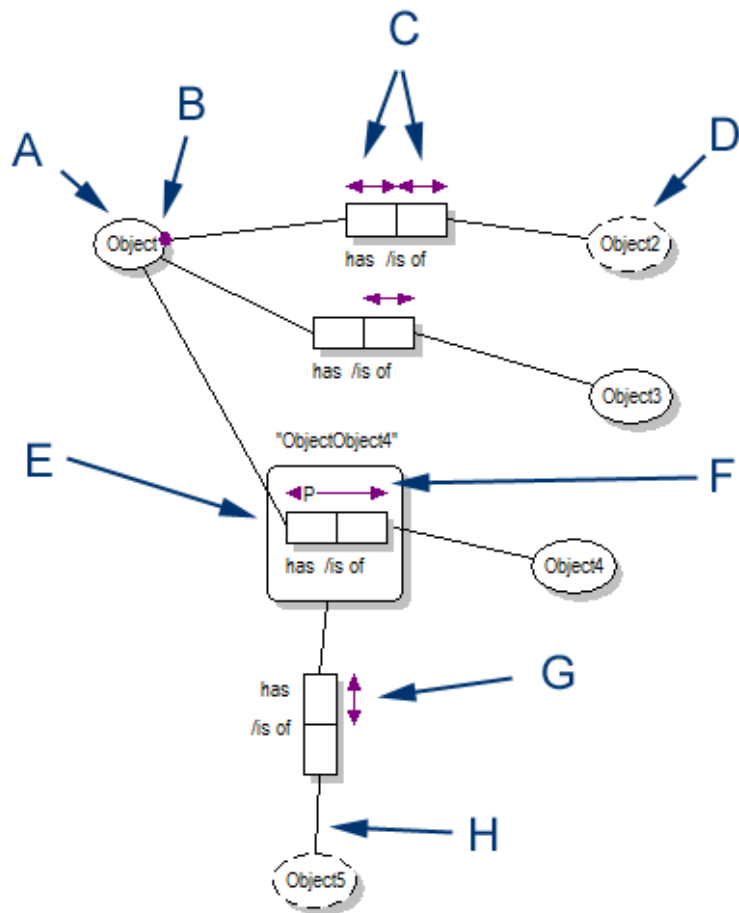
Correct!

## Question 10

5 / 5 pts

Which term **best** describes the oval labelled "Object" and identified by arrow "A"?





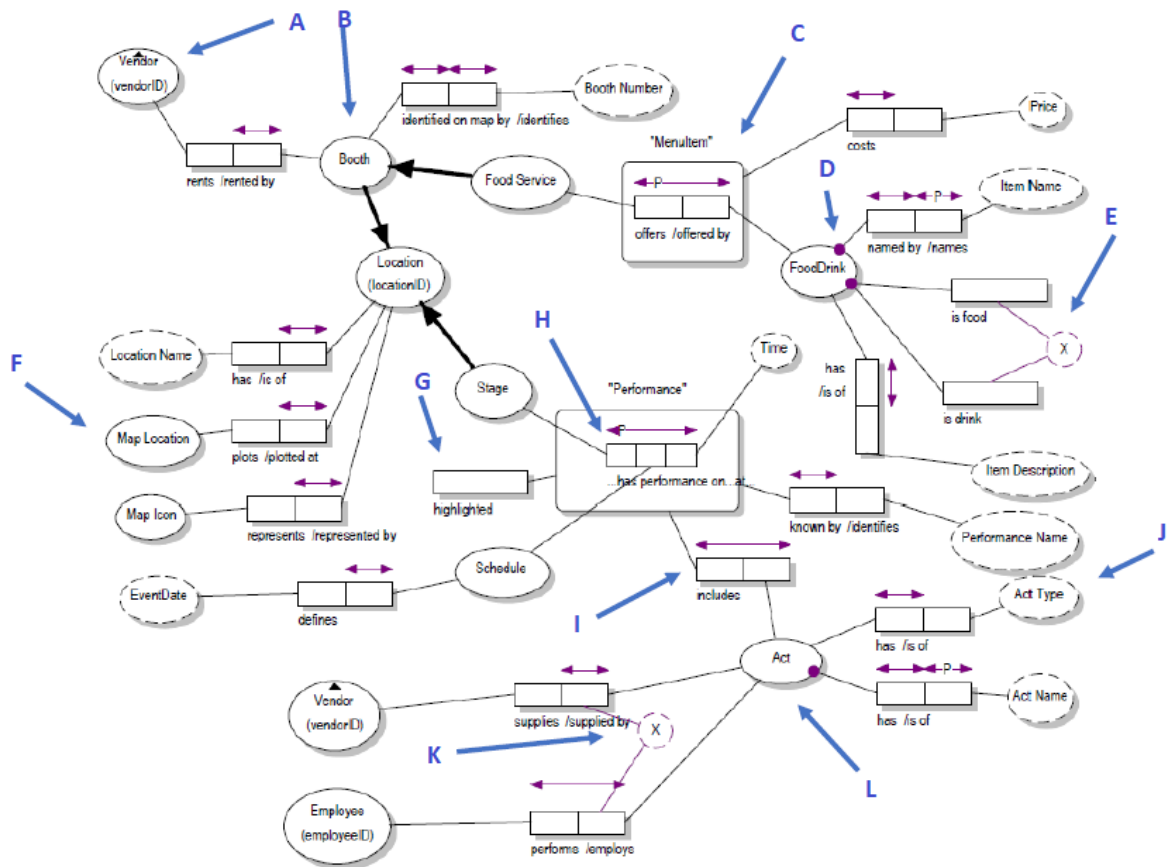
- ☐ An object
- ☐ A value
- ☐ A class
- ☒ An entity

Correct!

## Question 11

0 / 5 pts

Which ONE or MORE is a valid entity (based on being fully-constrained and having meaningful information) on the model?



Correct Answer

☐ Act

☐ Map Location

You Answered

☒ Vendor

☐ Schedule

Correct!

☒ Location

Correct Answer

☐ Menu Item

## Question 12

0 / 5 pts

This is a simple, but valid ORM model.

The rectangular cells labelled "has / is of" noted by arrow "G" is called:



- Correct!**

- ✓ All predicates have uniqueness constraints

You Answered

Correct!

- ☐ All roles have mandatory constraints
- ☒ All many-to-many relationships are defined as nested entities
- ☒ All entities have valid primary keys
- ☐ The model has at least one inheritance relationship defined

### Question 15

1.67 / 5 pts

Which ONE or MORE would be consider *invalid* as part of a proper ORM?

Incorrect Answer

Incorrect Answer

Correct!

- ☐ A value object having a one to many relationship with an entity
- ☐ Two roles on same predicate connected to the same data object
- ☐ Uniqueness constraint on a unary predicate
- ☐ A value object having a many to one relationship with an entity
- ☒ A value object's role be marked as mandatory

### Question 16

5 / 5 pts

Consider a ORM model for a Movie database (like IMDB), would creating independent entities for Producer, Director, Writer, and Actor be most appropriate?

- ☐ Yes, because all are roles for people in movie



No, because you could not define multiple acting parts for a given actor in movie



Yes, because you could easily determine if an actor directed and produced a movie

Correct!



No, because you could not easily determine if an actor directed and produced a movie

### Question 17

0 / 5 pts

The concept of a *domain* most closely is associated with what element in ORM?



Predicate roles



Constraints



Values

Correct Answer



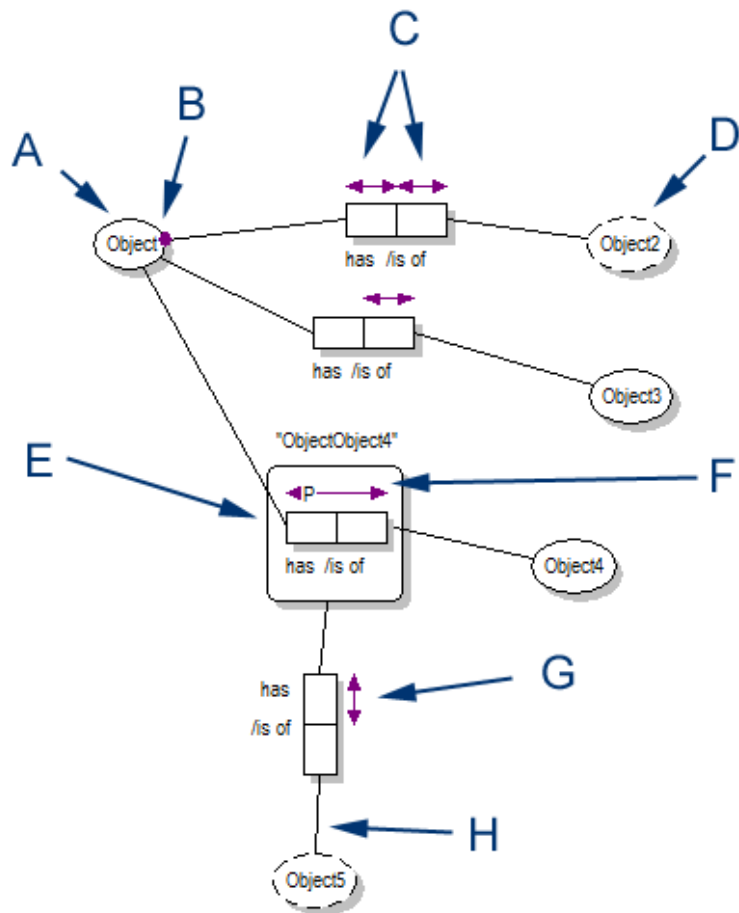
Entities

You Answered

### Question 18

5 / 5 pts

All predicates on this example model are:



Correct!

- ☒ Binary predicates
- ☐ Unary predicates
- ☐ Mandatory predicates
- ☐ Tertiary predicates

### Question 19

5 / 5 pts

Most relationships in a valid, fully-constrained model are:

- ☐ Many to many relationships between entities
- ☒ Many to one relationships between entities and values

Correct!

- ☐ One to many relationships between entities and values
- ☐ Inheritance relationships
- ☐ One to one relationships between values and values

### Question 20

2.5 / 5 pts

Which ONE or MORE constraints are minimum required in an ORM?

Correct!

- ☒ Uniqueness constraints
- ☐ Exclusionary constraints
- ☐ Index constraints
- ☐ Ring constraints
- ☐ Disjoint constraints
- ☐ Mandatory constraints (other than primary key)
- ☐ Primary key constraints (definitions)

Correct Answer

Quiz Score: **56.67** out of 100