

Quiz: Conceptual Models (ORM)

Due Jul 4 at 11:59pm
Allowed Attempts 3

Points 100

Questions 20

Time Limit 25 Minutes

Instructions

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

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Attempt History

	Attempt	Time	Score
KEPT	Attempt 2	10 minutes	90 out of 100
LATEST	Attempt 2	10 minutes	90 out of 100
	Attempt 1	16 minutes	56.67 out of 100

Score for this attempt: **90** out of 100

Submitted Jul 4 at 5:12pm

This attempt took 10 minutes.

Question 1

5 / 5 pts

A predicate can have how many roles associated with it?

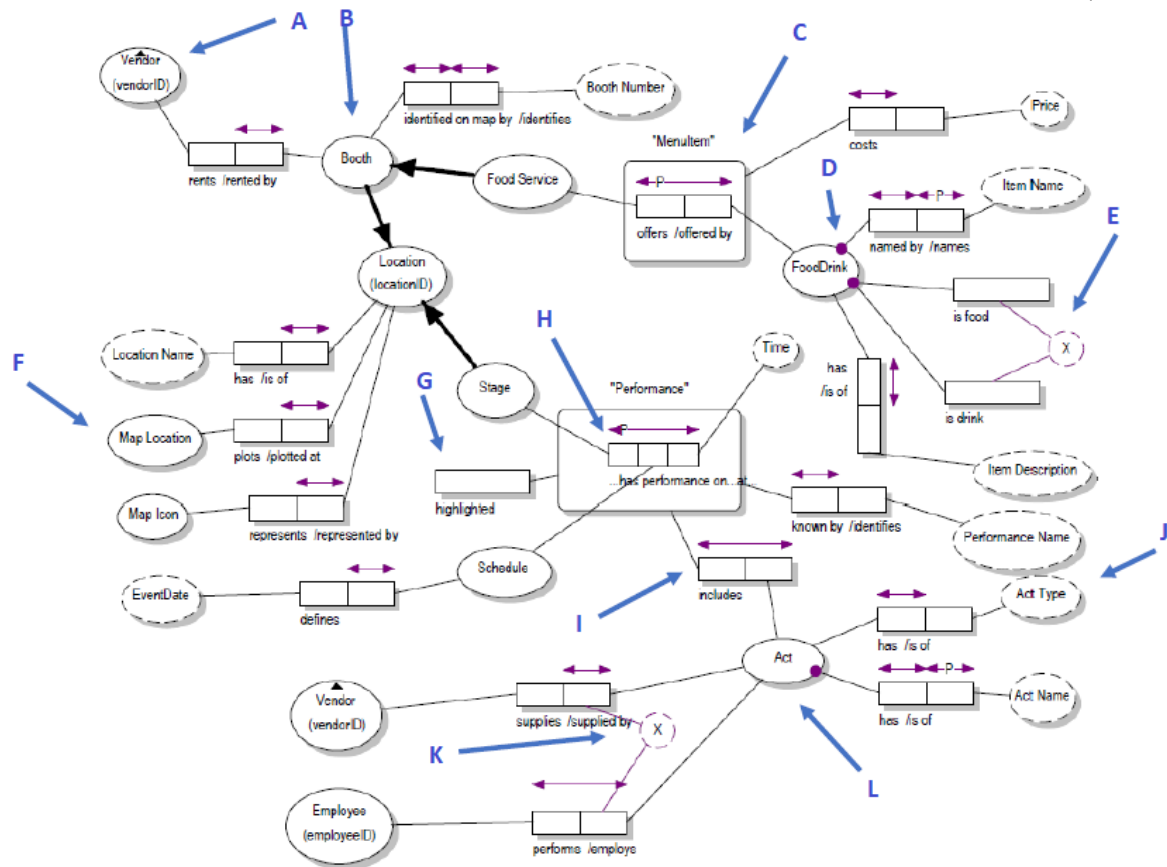
- ☐ One
- ☐ Three
- ☐ Two
- ☒ Any

Correct!

Question 2

5 / 5 pts

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



☐ Nothing (not defined)

Correct!

☒ locationID

☐ MenuItem

☐ Booth Number

Question 3

0 / 5 pts

A predicate is most closely associated with which type of relationship?

You Answered

☒ Domain

Correct Answer

☐ HAS A

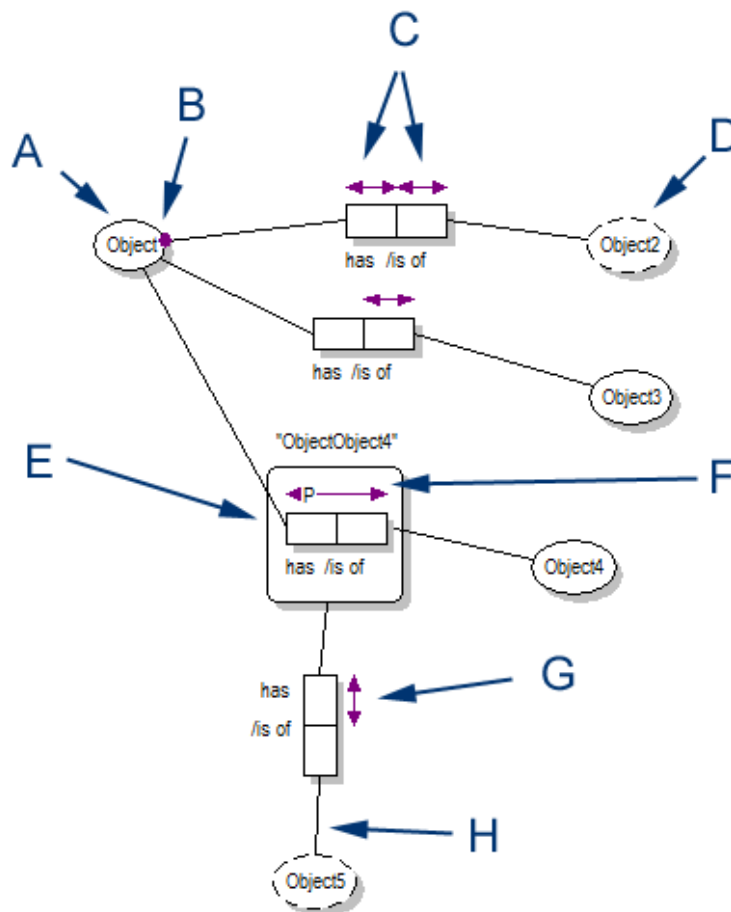
☐ Mandatory

☐ IS A

Question 4

5 / 5 pts

Which term **best** describes the oval labelled "Object2" and identified by arrow "D"?



☐ An attribute

Correct!

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

Question 5

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?

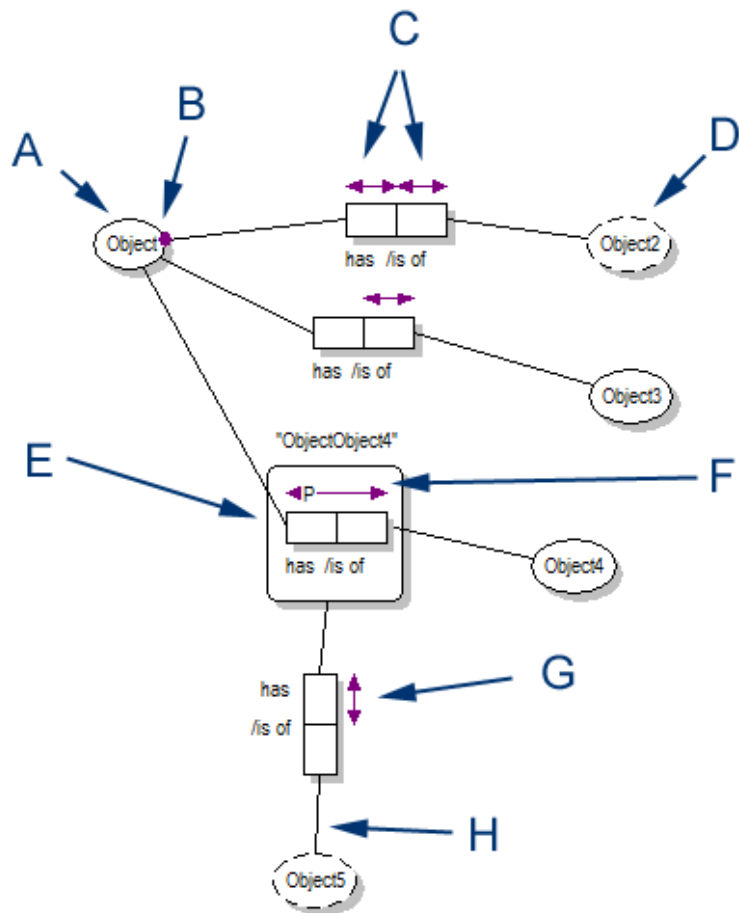
- ☐ Yes, because all are roles for people in movie
- ☐ Yes, because you could easily determine if an actor directed and produced a movie
- ☐ No, because you could not define multiple acting parts for a given actor in movie
- ☒ No, because you could not easily determine if an actor directed and produced a movie

Correct!

Question 6

5 / 5 pts

The line connecting oval labelled "Object5" to the rectangular cell is called:



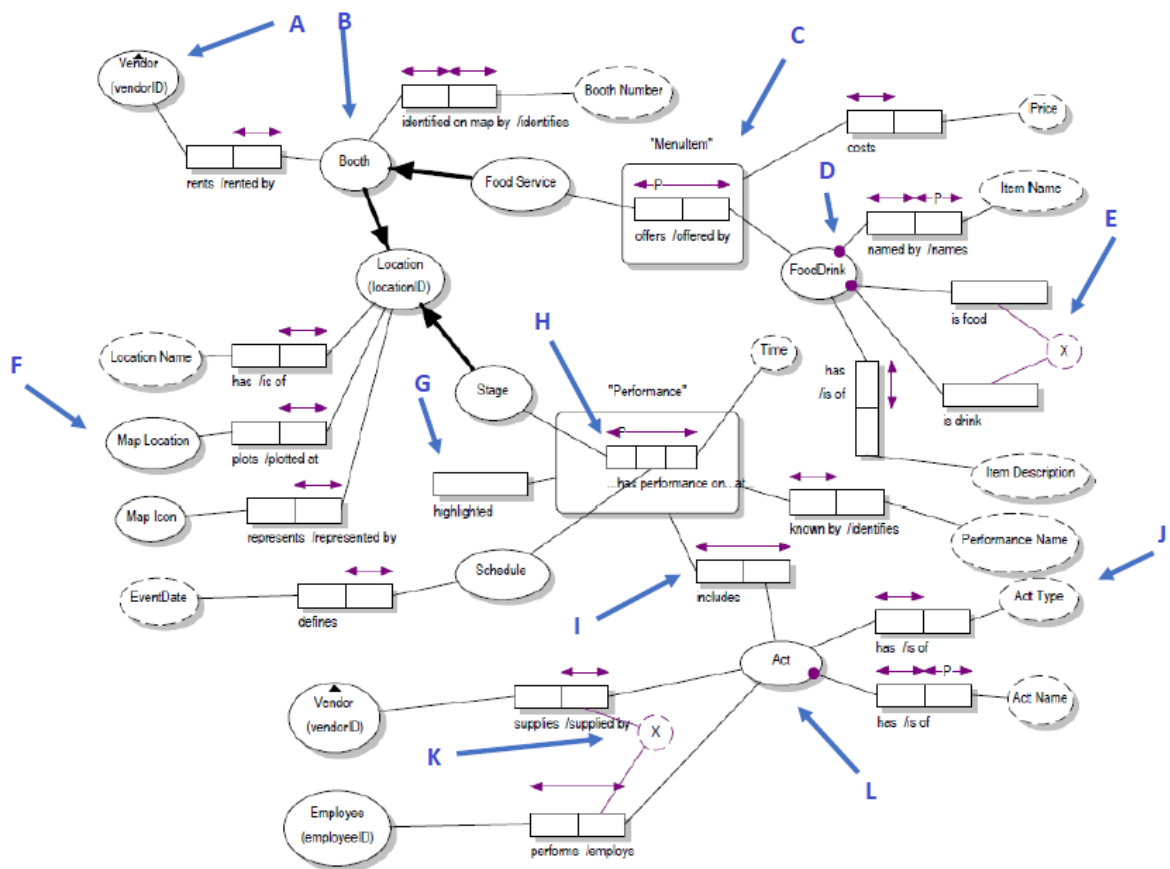
- ☐ A predicate
- ☐ A constaint
- ☐ A relationship
- ☒ A role

Correct!

Question 7

5 / 5 pts

Is "G" a valid predicate?



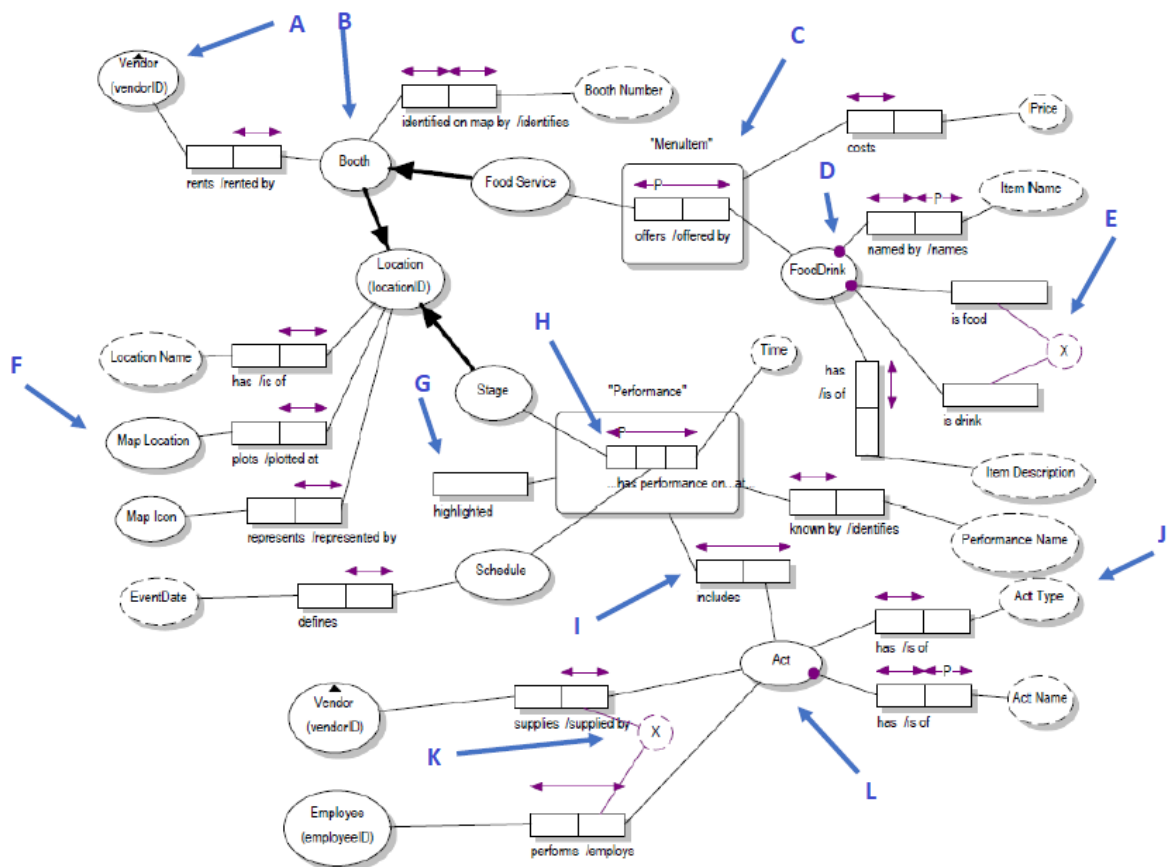
- ☐ No, because it does not have a uniqueness constraint
- ☐ No, because it's not a binary predicate
- ☐ Yes, because Performance is a nested entity
- ☐ No, because it does not have a mandatory constraint
- ☒ Yes, it's a unary predicate

Correct!

Question 8

5 / 5 pts

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



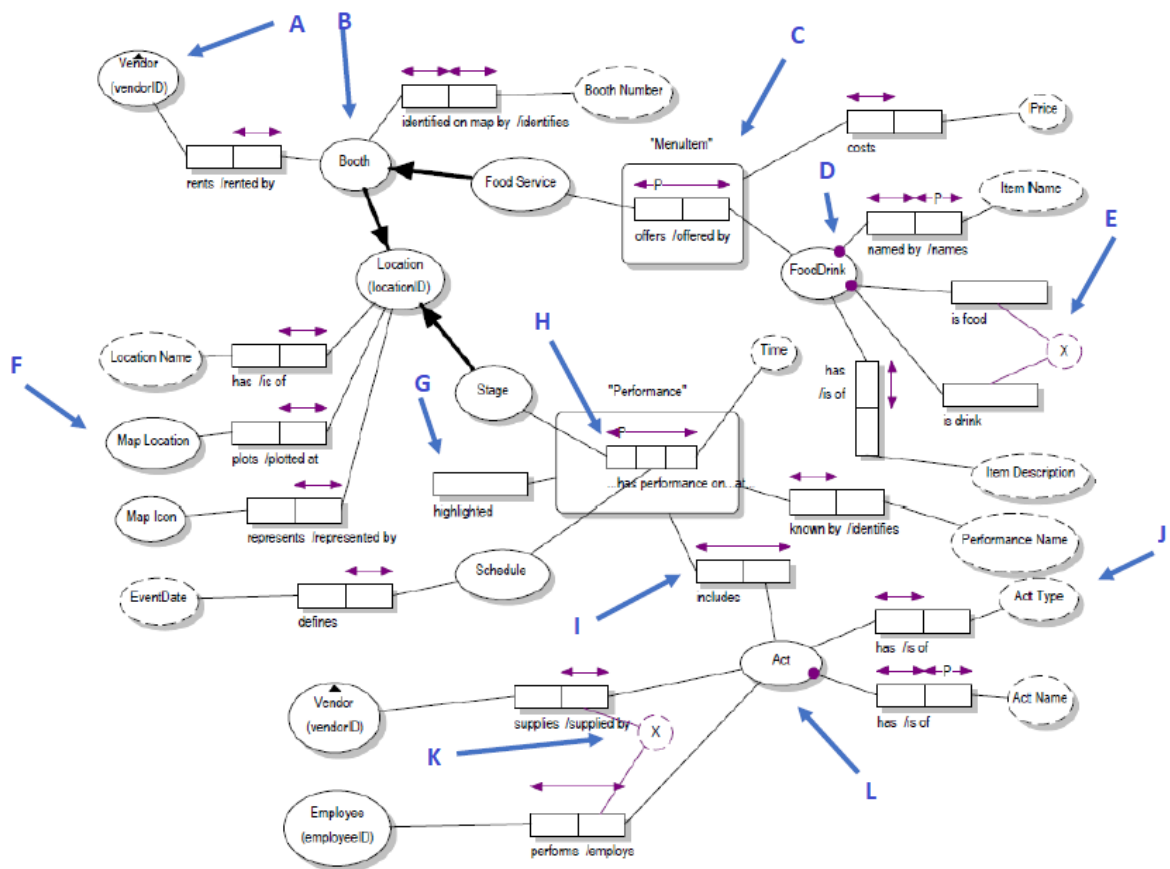
- ☐ Nothing - invalid syntax
- ☐ Both roles required together
- ☐ Mandatory roles
- ☒ Exclusionary roles

Correct!

Question 9

5 / 5 pts

Is the predicate near "H" valid?



- ☐ No, because it's a nested entity
- ☐ No, because the roles connected to it don't have mandatory constraints
- ☐ No, because it's not a binary predicate
- ☐ No, because "time" is a value
- ☒ Yes, it's a n-ary predicate

Correct!

Question 10

5 / 5 pts

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

- ☒ Predicate
- ☐ Entity

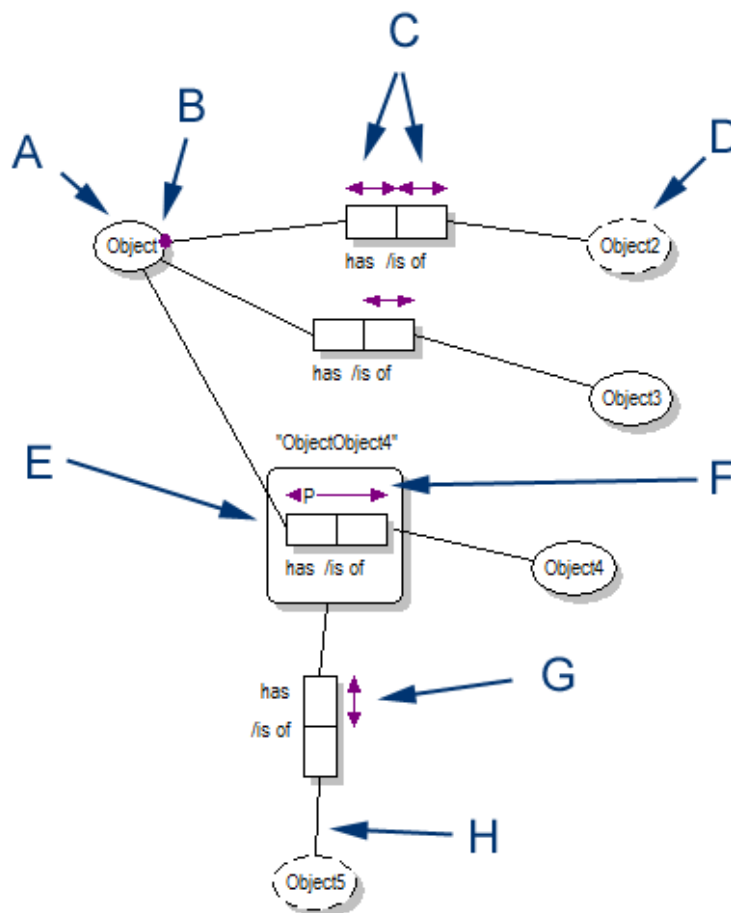
Correct!

- ☐ Value
- ☐ Constraint

Question 11

5 / 5 pts

Which term **best** describes the rounded box labelled "ObjectObject4" noted by arrow "E"?



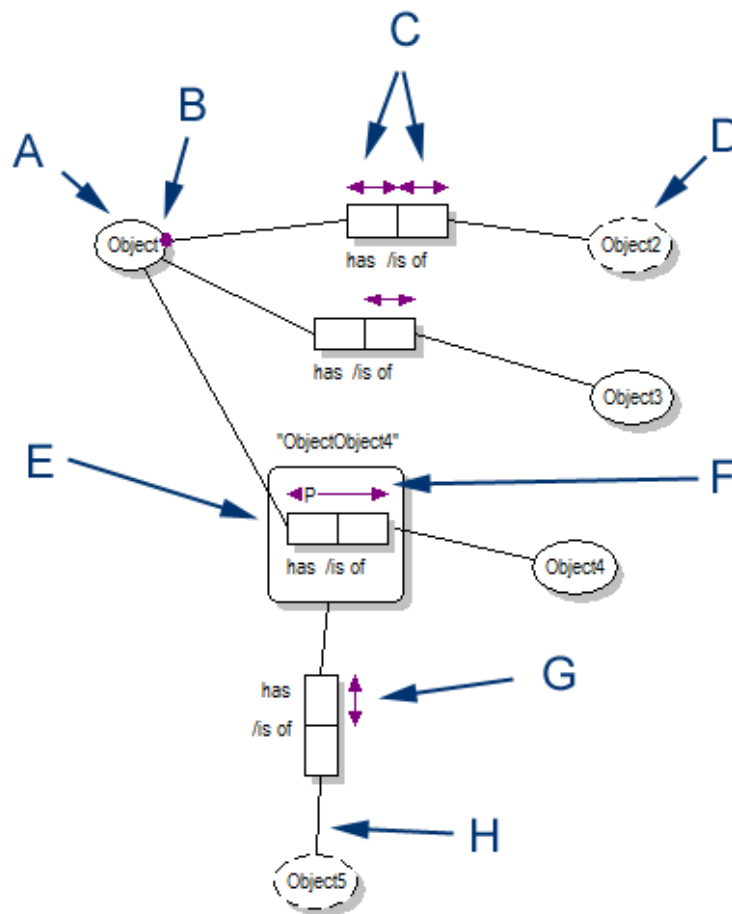
- ☐ A value
- ☒ A nested object
- ☐ An entity
- ☐ A predicate

Correct!

Question 12

5 / 5 pts

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



☐ A relationship

☒ A predicate

☐ A role

☐ Inheritance

Correct!

Question 13

5 / 5 pts

Which ONE or MORE of the following are expected as part of a valid, fully-constrained ORM?

☐ All many-to-many relationships are defined as nested entities

Correct!

☒ All entities have valid primary keys

☐ All roles have mandatory constraints

☐ The model has at least one inheritance relationship defined

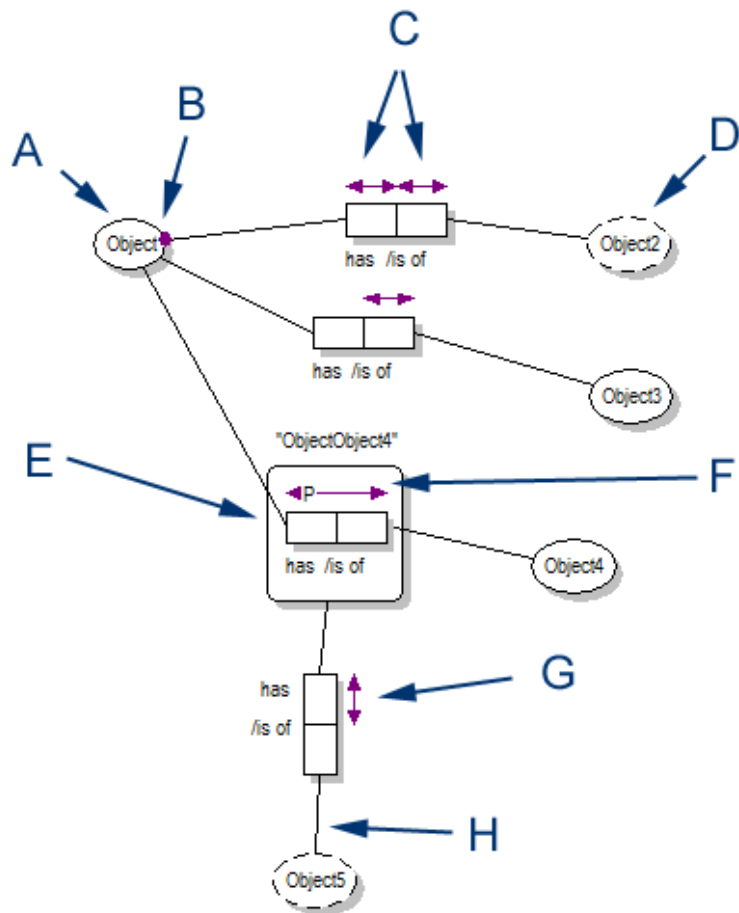
Correct!

☒ All predicates have uniqueness constraints

Question 14

5 / 5 pts

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



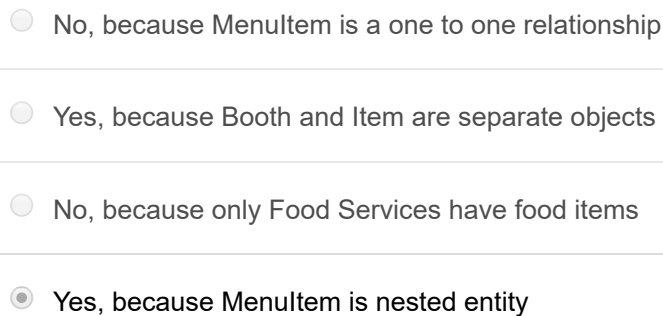
Correct!

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

Question 15

5 / 5 pts

Can two Booths (near "B") have the same food item (near "D") such as a "turkey leg"?



Correct!

☐ Domains

☐ Predicates

Question 17

5 / 5 pts

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

☐ Disjoint constraints

☐ Exclusionary constraints

Correct!

☒ Primary key constraints (definitions)

☐ Mandatory constraints (other than primary key)

Correct!

☒ Uniqueness constraints

☐ Ring constraints

☐ Index constraints

Question 18

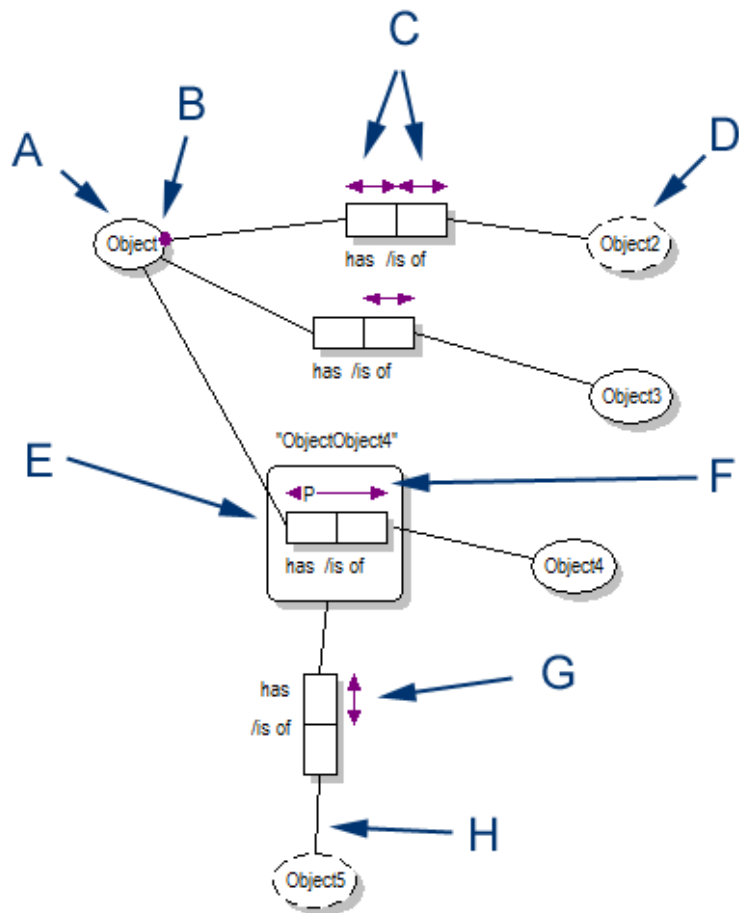
5 / 5 pts

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



- ### Question 19

Reading from top to bottom, what is the cardinality of the relationship identified by "G":



☐ Many to Many

☐ One to One

You Answered

☒ One to Many

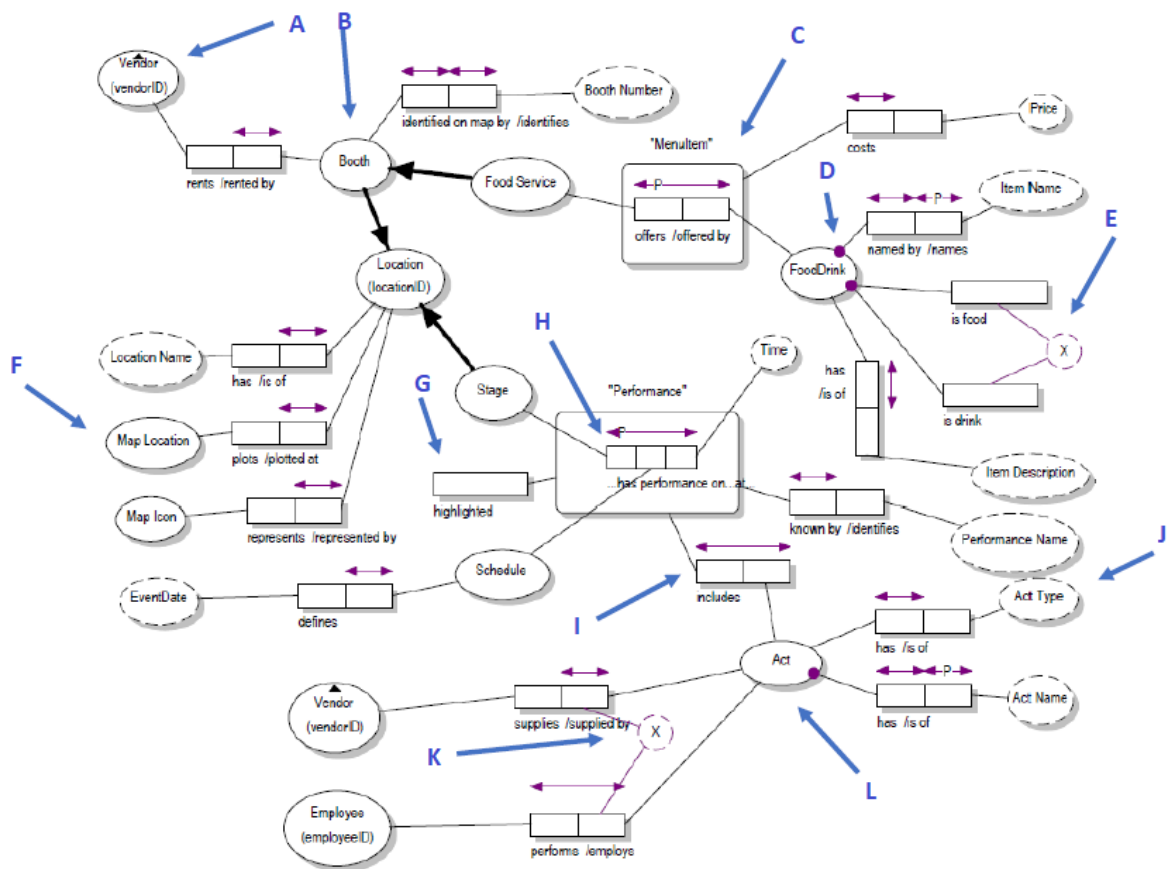
Correct Answer

☐ Many to One

Question 20

5 / 5 pts

What does the "^" (caret) mark mean on object near "A"?



- ☐ The data object is from an external database
- ☐ The data object is an entity
- ☒ The data object will be found somewhere else on the model
- ☐ The data object is derived

Correct!

Quiz Score: **90** out of 100