

Quiz 2: Using ERD & Schema

Due Apr 21 at 11:59pm **Points** 100 **Questions** 11
Available until Apr 26 at 11:59pm **Time Limit** None
Allowed Attempts Unlimited

Instructions

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This quiz evaluates your understanding of using ERD and Schema as tools for database design. Many questions on this Quiz can be interpreted in different ways and not all the interpretations are correct or the ones which the grader will use when grading.

I strongly encourage you to participate on Piazza, ask questions, and discuss the concepts related to this Quiz.

Read all questions carefully before attempting as some questions require you to read and understand a diagram or description that precede them.

For all questions requiring File Upload, upload only a PDF and use only the notation from Week 2 that we use in this class.

Points:

You can take this quiz unlimited number of times and your latest score will count.

[Take the Quiz Again](#)

Attempt History

	Attempt	Time	Score
KEPT	Attempt 2	32 minutes	100 out of 100
LATEST	Attempt 2	32 minutes	100 out of 100
	Attempt 1	47 minutes	28 out of 100

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

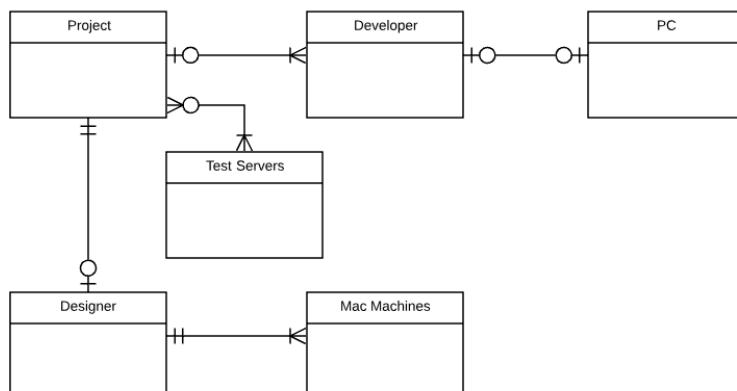
Submitted Apr 19 at 8:05pm

This attempt took 32 minutes.

Question 1

20 / 20 pts

Based on the diagram below, match the pairs to describe the relationships.



Correct!

A Project is in a partial relationship with

Designer

Correct!

A Project can exist without a

Designer

Correct!

A Designer should be related to at least one

Mac Machine

Correct!

The cardinality of the relationship of Project to Developer is

M

Correct!

The cardinality of the relation of Mac Machine to Designer is

1

Correct!

A PC can exist without a

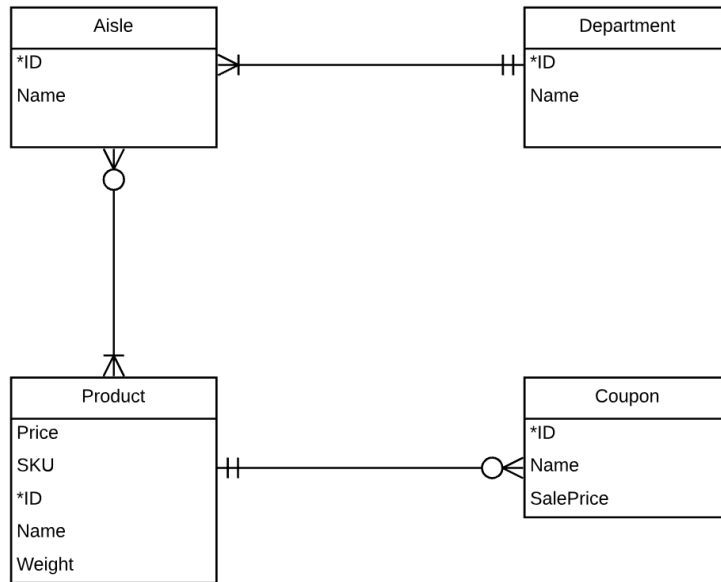
Developer

Correct!

A Project can run on multiple

Test Server

Based on the following ERD, you will need to draw a Schema to answer the 5 questions below:



Question 2

4 / 4 pts

The table with the most number of columns in the Schema is:

☐ Aisle

☒ Product

☐ Coupon

☐ Department

Correct!

Question 3

4 / 4 pts

The table(s) with two starred/underlined attributes is/are:

☐ Product

Correct!☐ Aisle_Department☒ Product_Aisle☐ Product_Coupon☐ Coupon**Question 4****4 / 4 pts**

The following are non-existent tables in the Schema

☐ Product☐ Aisle☐ Coupon**Correct!**☒ ID**Correct!**☒ Name**Question 5****4 / 4 pts**

Which tables will the ID attribute in Product table be linked to?

Correct!☒ Coupon☐ Department☐ Aisle☐ None of these

Question 6**4 / 4 pts**

How many tables are there in the Schema for the above ERD ?

☐ 3☐ 6☐ 4☐ 7**Correct!**☒ 5

We are designing a database for Garden management where Garden, Flowers, Wells and Gardeners are the entities.

Right now, we only know that each entity has an ID attribute.

Draw a Schema for this database (you might need to draw an ERD too) and then answer the 4 questions that follow:

- A Flower should grow in at least one Garden.
- A Garden may grow 0 or more Flowers.
- A Well will supply water to many Gardens.
- A Garden will be supplied water through only 1 Well.
- A Gardener should take care of at least 1 Garden.
- A Garden can be cared for by at most 2 Gardeners.

Question 7**12.5 / 12.5 pts**

How many tables will the Garden table be connected to, in the Schema?

Count all M-to-M, 1-to-M and 1-to-1 relationships.

Correct!

3

Correct Answers

3.0 (with margin: 0.0)

Question 8

12.5 / 12.5 pts

Which of the following relations do not require a separate table to be created in the Schema?

Correct!

☐ Garden in relation to Flower

☒ Well in relation to Garden

☐ Garden in relation to Gardener

☐ None of these

☐ All of these

Question 9

12.5 / 12.5 pts

What is the total number of tables in the Schema for the Garden Management database described above ?

Correct!

☒ 6

☐ 4

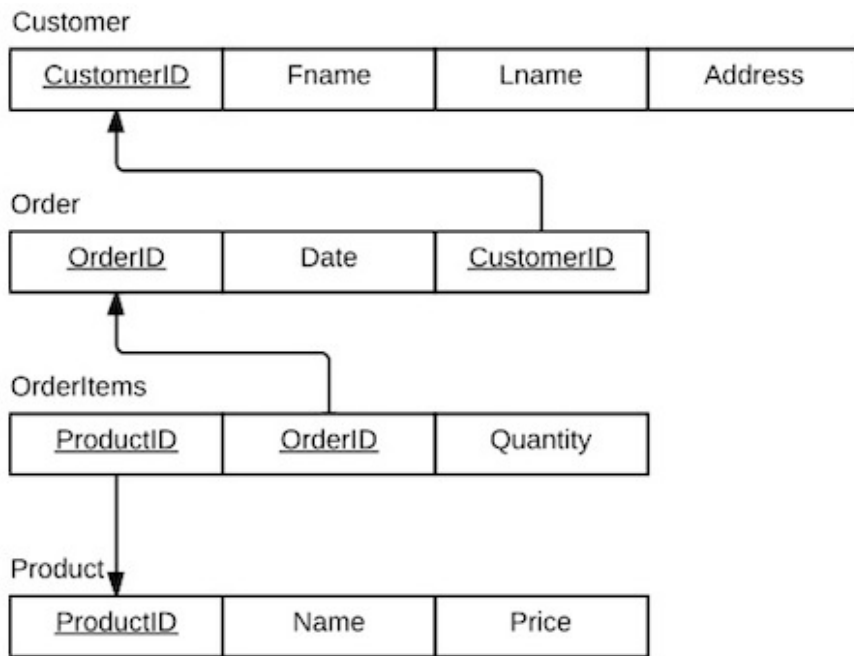
☐ 7

☐ 1**Question 10****12.5 / 12.5 pts**

Which of the following relations require a separate table to be created in the Schema?

☐ Well in relation to Garden☒ Garden in relation to Flower☒ Garden in relation to Gardener☐ All of these☐ None of these**Correct!****Correct!****Question 11****10 / 10 pts**

In the following schema, what type of relationship exists between *orders* and *products*?



☐ One-to-many

☐ One-to-one

☒ Many-to-many

☐ Many-to-one

Correct!

Quiz Score: **100** out of 100