A4

ⓘ This is a preview of the published version of the quiz

Started: Jul 2 at 12:16am

Quiz Instructions

This test has a time limit of 75 mins.

This test will save and submit automatically when the time expires.

Once started, this test must be completed in one sitting. Do not leave the test before clicking Save and Submit.

Assignment 4 preview.pdf

premiere.sql

Question 1 — 4 pts

An entity supertype

- [ ] is used to minimize the likelihood of redundant relationships
- [ ] is a generic entity type that is related to one or more entity subtypes
- [ ] minimize the number of nulls
- [ ] contains the common characteristics

Question 2

4 pts

The entity subtype will store the data that is

- ◯ inherited by all subtypes
- ◯ not unique to the subtype
- ◯ unique to the subtype
- ◯ calculated from related attributes

Question 3

4 pts

A specialization hierarchy depicts the

- ◯ the process of identifying a higher-level, more generic entity supertype from lower-level entity subtypes
- ◯ presentation of multiple entities and relationships in the ERD
- ◯ description of the extent to which attribute are independent of one another Selected
- ◯ arrangement of higher-level entity supertypes and lower-level entity subtypes

Question 4

4 pts

A subtype discriminator

- ◯ is the attribute(s) in the supertype entity that is used to determine to which entity subtype the supertype occurrence is related
- ◯ describes the relationship between members of the subtype
- ◯ determines whether every occurrence in the supertype must participate as a member of a subtype
- ◯ provides a detailed accounting of all tables found within the database

Question 5

4 pts

Overlapping subtypes

- ◯ are subtypes that contain unique subsets of the supertype entity set
- ◯ are subgrouping of the entities
- ◯ each entity instance of the supertype may appear in more than one subtype
- ◯ are entities whose existence depends on some other entity type

Question 6

4 pts

Partial completeness means

- ◯ every subtype occurrence must be a member of at least one supertype
- ◯ not every supertype occurrence is a member of a subtype
- ◯ every supertype occurrence must be a member of at least one subtype
- ◯ not every subtype occurrence is a member of a supertype

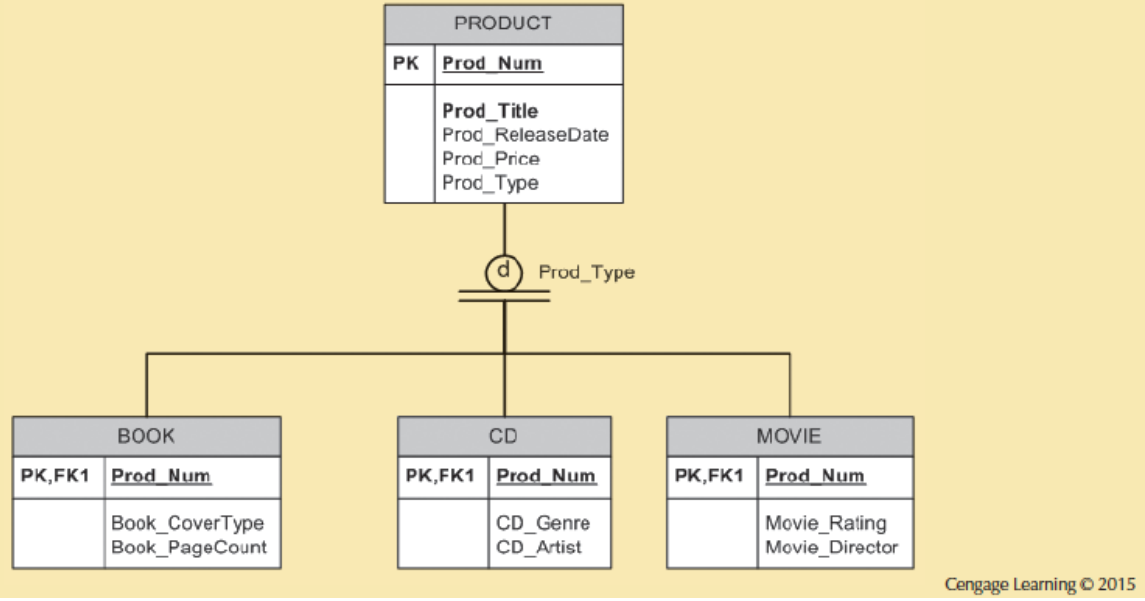
Question 7

4 pts

According to the data model (Fig. Q5.7), is it required that every entity instance in the **PRODUCT** table be associated with an entity instance in the **CD** table? Why or why not? Please select the **correct** statement.

Hint: review disjoint vs. overlapping constraints, and completeness constraint (partial vs. total).

FIGURE Q5.7 The PRODUCT data model



- ◯ No. The partial completeness constraint indicates that every instance in the supertype must be associated with one row in some subtype, not all subtypes.
- ◯ No. The total completeness constraint indicates that every instance in the supertype (PRODUCT) must be associated with one row in **some** subtype, not all subtypes. Since the subtypes are designated as disjoint, or exclusive, then every row in the supertype is associated with a row in only one subtype.
- ◯ No. With overlapping subtypes, every row in the supertype is associated with a row in only one subtype.
- ◯ No. The subtype discriminator is not required in this model.

Question 8

4 pts

List all of the attributes of a movie based on Fig. Q5.7.

- ☐ Prod_Num
- ☐ Prod_Title
- ☐ Prod_ReleaseDate
- ☐ Prod_Price
- ☐ Prod_Type
- ☐ Movie_Rating
- ☐ Movie_Director

Question 9

3 pts

Is it possible for a book to appear in the BOOK table without appearing in the PRODUCT table? Why or why not, explain? (based on Fig. Q5.7.)

- ◯ Yes. There is no special relationship between the BOOK table and the PRODUCT table.
- ◯ Yes. This is not a specialization hierarchy.
- ◯ No. Subtypes can only exist within the context of a supertype.
- ◯ No. In a specialization hierarchy supertypes and subtypes are independent of each other.

Question 10

3 pts

Match the following PK characteristics and their explanation

Unique values	[Choose]
Nonintelligent	[Choose]
No change over time	[Choose]
Preferably single-attribute	[Choose]
Preferably numeric	

[Choose]

Security complaint [Choose]

Question 11 3 pts

Generally, it is best *not* to use composite primary keys. However, if they are used, they can be useful as identifiers of

- [ ] composite entities, where the primary key from each parent entity resolves a M:N relationship
- [ ] weak entities, where the weak entity has a weak identifying relationship with the parent entity
- [ ] composite entities, where each primary key combination is not allowed in the M:N relationship
- [ ] weak entities, where the weak entity has a strong identifying relationship with the parent entity

Question 12 3 pts

When implementing a 1:1 relationship, where should you place the foreign key if one side is mandatory and one side is optional? Should the foreign key be mandatory or optional?

- [ ] Place the PK of the entity on the mandatory side in the entity on the optional side as a FK
- [ ] Place the FK of the entity on the mandatory side in the entity on the optional side as a PK

- [ ] make the FK mandatory
- [ ] make the FK optional

Question 13

20 pts

Given the following business scenario, create a Crow's Foot ERD using a specialization hierarchy if appropriate.

Two-Bit Drilling Company keeps information on employees and their insurance dependents:

- Each employee has an employee number, name, date of hire, and title.
- If an employee is an inspector, then the date of certification and the renewal date for that certification should also be recorded in the system.
- For all employees, the Social Security number and dependent names should be kept.
- All dependents must be associated with one and only one employee.
- Some employees will not have dependents, while others will have many dependents.

Note:

- You must indicate the **subtype discriminator**, **disjoint/overlapping**, and **partial/total completeness constraint**, by using a textbox with text stating the designations.
- **Two records** in Employee table, **one record** in dependent table, **one record** in inspector table.
- Please upload a .**mwb** file!

Upload Choose a File

Question 14

6 pts

Use the Premiere script to create your SQL statements, then attach both SQL statements and query results. For all SQL statement questions (14-19), please list **SQL commands** (4pts) with the **query result sets** (2pts) in your answer!

List the largest customer balance, use alias, “largest balance.”

12pt Paragraph

Statement:

Result:

p

2 words

Question 15

6 pts

List the average part price, rounded to two decimal places, use alias, "average price."

12pt Paragraph

Statement:

Result:

p 2 words </>

Question 16 6 pts

List all part numbers, descriptions, and part prices (rounded to two decimal places) for parts priced between $30 and $300, inclusive.

12pt Paragraph B I U A T²

Statement:

Result:

p 2 words </>

Question 17 6 pts

Remove order numbers between 12491 and 12498, inclusive, in one statement;

12pt Paragraph

Statement:

Result:

p 2 words

Question 18 6 pts

Update all customers' credit limits to $2000, for those customers whose balance is less than or equal to $800.

12pt Paragraph

Statement:

Result:

p 2 words

Question 19

6 pts

Add three records to the order_line table, in one statement, with the following values:

(12500, 'AX12',10,21.99)
(12500, 'CB03',10,10.99)
(12504, 'CX11',10,24.99)

12pt Paragraph

Statement:

Result:

p

2 words

Saving...

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