Design the Logical Model of Your Relational Database

4 hours Easy

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Identify the Basics of Relational Databases

You haven't passed this quiz.

You didn't earn the required grade for this exercise (70% or higher). Don't worry though. You can retake this quiz in 24 hours.

Evaluated skills

- ✗ Distinguish relational databases from NoSQL databases
- ✗ Describe the elements of relational databases

Description

For any quiz questions you struggle with, don't forget to go back and review the relevant content to make sure the concepts are clear before moving on.

Question 1

Select the characteristics of a traditional relational database:

Careful, there are several correct answers.

- ✗ ☑ It is more specialized than other types of databases.
- ✗ ☐ It reduces data redundancy.
- ✓ ☑ It keeps data stored in only one location.
- ✗ ☐ It minimizes the chances that data will not be updated.

This traditional method of data storage allows for data to be stored in only one location. This reduces redundancy and minimizes the chance that data will not get updated when an edit occurs.

Question 2

How many general types are used to categorize data in a relational database?

- ○ Two
- ○ Three
- ✓ ◉ Four
- ○ Five

The most common data types are:

1. *Number*
2. *Date/time*
3. *Boolean*
4. *Text*

Question 3

In a relational database, what is an entity?

- ✗ ◉ The description of an object.
- ○ A characteristic of an object.
- ✓ ○ Anything that can be described.
- ○ The technical term for a ghost.
- ○ The entire database as a whole.

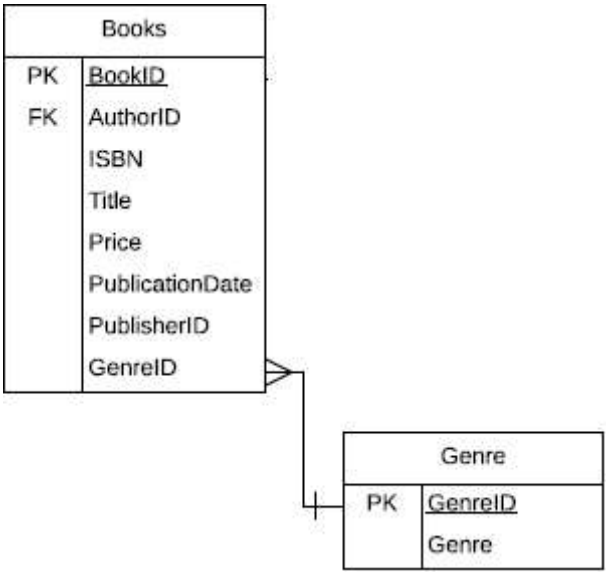
An entity is anything that can be described, such as a book, a car, or a house.

Question 4

Which of these do you use to show how your database tables are related?

- ○ Database diagram
- ○ Family tree
- ○ Blueprint
- ✓ ◉ Entity relationship diagram
- ○ HTML

*In a relational database, each table is related to one or more other tables. To show how the tables are related to each other, we use diagrams known as **entity relationship diagrams, or ERDs,** such as the simple one below showing the relationship between two tables:*



A simple ERD

Question 5

Where among the following would you most commonly see a NoSQL database?

- ✓ ○ A mobile app.
- ✗ ◉ A website.
- ○ A point-of-sale system in a store.
- ○ SQL Server database.

NoSQL databases tend to be specialized, making them an ideal fit for mobile devices.

Question 6

Which NoSQL type stores all details of an object in a single instance?

✗ ◉ Key-value

○ Graph

○ Column

✓ ○ Document

The document-oriented NoSQL stores all the details of an object in a single instance in the database, such as those related to a vehicle purchase.

The key-value variety of NoSQL stores data as a dictionary or hash table, which is a collection of records.

The graph variety transfers data into nodes and relationships into edges.

The column variety uses a timestamp to differentiate between valid and stale values.

Question 7

What is an attribute in a relational database?

○ Anything that can be described.

✗ ◉ A way of storing data.

✓ ○ Specific, atomic descriptions of entities.

○ One of the different kinds of data type.

○ A synonym for data type.

Entities have attributes. For example, a book is an entity with attributes like its title, author, edition, etc.

Question 8

In an entity relationship diagram, each entity is related to how many others?

○ None

○ Only one

✓ ◉ At least one

○ Two or more

For a relational database to function correctly, entities must be related to one or more other entities. They can be related to as many as needed.

Choose the Right Data Type

Connect Your Data With a Relational Data Model

Teacher

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