



## Congratulations! You passed!

Next Item



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point

1.

What is the primary value add of relational databases over flat files?



Ability to scan large amounts of data quickly



**Correct**



Ability to store data in a format that can be sent across a network



Ability to quickly convert data to HTML



Ability to execute PHP code within the file



Ability to execute JavaScript in the file



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point

2.

Which of the following is NOT a good rule to follow when developing a database model?



Use integers as primary keys



Never repeat string data in more than one table in a data model



Each "object" in the application should be modeled as one or more tables



Use a persons email address as their primary key



**Correct**

# Database Models

Practice Quiz, 15 questions

15/15 points (100%)



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point

3.

If our user interface (i.e. like iTunes) has repeated strings on one column of the UI, how should we model this properly in a database:

- ☐ Encode the entire row as JSON and store it in a TEXT column in the database
- ☐ We put the string in the first row it occurs and then put that row number in the column all of the rest of the rows where the string occurs
- ☒ We make a table that maps the strings in the column to numbers and then use those numbers in the column



**Correct**

- ☐ We put the string in the last row where it occurs and put the number of that row in the column all of the rest of the rows where the string occurs
- ☐ We put the string in the first row where it occurs and then NULL in all of the other rows



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4.

Which of the following is the label we give a column that the "outside world" uses to look up a particular row?

- ☐ Primary key
- ☐ Local key
- ☒ Logical key



**Correct**

- ☐ Remote key
- ☐ Foreign key

5.

What is the label we give to a column that is an integer and used to point to a row in a different table?

- ☐ Remote key
- ☐ Logical key
- ☐ Primary key
- ☐ Local key
- ☒ Foreign key

Correct

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point

6.

What MySQL keyword is added to primary keys in a CREATE TABLE statement to indicate that the database is to provide a value for the column when records are inserted.

- ☐ ASSERT\_UNIQUE
- ☒ AUTO\_INCREMENT

Correct

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point

7.

What is the SQL keyword that reconnects rows with foreign keys with the corresponding data in the table that the foreign key points to?



☒ JOIN



Correct

☐ COUNT

☐ CONNECT



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point

8.

What happens when you JOIN two tables together without an ON clause?

☐ The rows of the left table are connected to the rows in the right table when their primary key matches

☒ The number of rows you get is the number of rows in the first table times the number of rows in the second table



Correct

☐ You get no rows at all

☐ You get all of the rows of the left table in the JOIN and NULLs in all of the columns of the right table

☐ Leaving out the ON clause when joining two tables is an SQL syntax error



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point

9.

What does an "ON DELETE CASCADE" clause imply in a foreign key constraint in a MySQL CREATE TABLE statement?

☐ Whenever a row is deleted from the table, the other rows are scanned to insure that the logical key is unique and any duplicates are removed



# Database Models

Practice Quiz, 15 questions

When a row in the parent table is deleted all the rows in a child table that point to that row via a foreign key are deleted

15/15 points (100%)

Correct

- ☐ Whenever a row is deleted, it is moved into a table named "CASCADE"
  - ☐ When rows in a child table are deleted, the primary key of the corresponding row in the parent table is set to NULL
- 



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point

10.

Which of the following types of tables often are created without a primary key?

- ☒ Many-to-many

Correct

- ☐ One-to-one
  - ☐ Hash Map
  - ☐ One-to-many
  - ☐ B-Trees
- 



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point

11.

When might one prefer the CHAR column type over VARCHAR?

- ☐ When the data needs to be searched using a LIKE clause
- ☒ When the data is relatively short and almost always present

Correct

- ☐ When the data is prose like a discussion comment versus a logical key



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point

12.

What is the built-in MySQL function that gives you the current time in an SQL statement?

☐ CURR\_DATE()

☒ NOW()



**Correct**

☐ DATE(false)

☐ TODAY()



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point

13.

Which of the following indexes would be best for fast look up for exact key matches but not so good for prefix lookups or sorting?

☐ EXACT

☐ BTREE

☐ INDEX2

☒ HASH



**Correct**



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point

14.

# Database Models

Practice Quiz, 15 questions

15/15 points (100%)

Why is it a good idea to add "CONSTRAINT FOREIGN KEY" statements when creating database tables? (Check all that apply)

☐

So that prefix-based lookups perform well



Un-selected is correct

☐

So that database modeling tools know the relationships between tables



Correct

☐

So that you can specify default behaviors when records are deleted or updated



Correct

☐

So that MySql knows which columns are foreign keys and which columns are just integers



Correct



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point

15.

When you add an index to a field in a database table, how are performance and storage affected?

☐

Read performance is faster, insert performance is the same and no extra storage is required

☐

Read performance is the same, insert performance is faster and no extra storage is required

☐

Read performance is the faster, insert performance is faster and extra storage is required

☒

Read performance is faster, insert performance is slower and extra storage is required



Correct

