

1. Which of the following is true about a VARCHAR?

1 / 1 point

- ☒ It is a string of variable length.
- ☐ Its maximum length is denoted in brackets after the type name such as VARCHAR(10).
- ☐ Its length is fixed.
- ☐ It uses the same amount of space in the database irrespective of the length of the actual data stored in it.

Expand

Correct

Correct! VARCHAR stands for variable character and its length is not fixed, though it can have a maximum length.

2. In which decade did relational databases become a commercial success?

1 / 1 point

- ☐ 1970s
- ☐ 2000s
- ☐ 1990s
- ☒ 1980s

Expand

Correct

Correct! Relational databases became a commercial success in the 1980s.

3. The DBMS on the server in a 2-tier environment includes multiple layers. Which layer is also referred to as the persistence layer?

1 / 1 point

- ☐ Data Access layer
- ☐ Database Engine layer
- ☐ Transmission layer
- ☒ Database Storage layer

Expand

Correct

The database storage or persistence layer is where the data is stored, either locally or on network storage.

4. Which statement is true with regards to PostgreSQL?

0 / 1 point

- ☐ It is a NoSQL database management system (DBMS).
- ☐ It is object oriented.
- ☒ It is proprietary software.
- ☐ It supports inheritance and overloading.

Expand

Incorrect

Incorrect. Review the PostgreSQL video.

5. How can the Entity Relationship Diagram (ERD) model be used?

1 / 1 point

- ☒ The ERD model helps you to define entities and their attributes, and map them to tables, and identify the relationships between the tables.
- ☐ The ERD model helps you map data types to existing columns and rows.
- ☐ The ERD model helps you to define the data in each row of a table.
- ☐ The ERD model helps you to design a database with a single table.

Expand

Correct

The ERD model helps you to define entities and their attributes, and map them to tables, and identify the relationships between the tables. Rather than being used as a model on its own, the ER Model is used as a tool to design relational databases.

6. Which of the following sources is NOT supported by the Db2 Web Console for loading data?

1 / 1 point

- ☐ Cloud Object Storage (IBM)
- ☐ Delimited text files (local computer)
- ☒ Python code
- ☐ S3 object storage (AWS)

Expand

Correct

The Load Data utility does not load data stored in Python code.

7. Which of the following attributes is appropriate to use as a primary key?

1 / 1 point

- ☐ Copyright date
- ☒ Social security number
- ☐ Author
- ☐ Street address

Expand

Correct

Correct! A primary key should be a unique value.

8. Which of the following situations is best suited for indexing?

1 / 1 point

- ☐ With a table that often has rows inserted or updated
- ☒ When a table is regularly accessed using a SELECT statement but rows insert/update/delete scenarios are rare.
- ☐ When data in the database is unstructured
- ☐ When data needs to be deleted

Expand

Correct

Correct! A table that rarely has rows inserted or updated but is regularly accessed in SELECT queries is appropriate for indexing.

9. Which constraint specifies the permissible values for a given attribute?

1 / 1 point

- ☐ Semantic integrity constraint
- ☐ Unique constraint
- ☐ Entity integrity constraint
- ☒ Domain constraint

Expand

Correct

Correct! A domain constraint specifies the permissible values for a given attribute.

10. In which situation is it most appropriate to partition a database?

1 / 1 point

- ☒ For optimizing queries for data warehousing with large volumes of data.
- ☐ When there are many tables in an instance
- ☐ When it's necessary to store user access permissions in a table
- ☐ When an instance requires both user schemas and system schemas

Expand

Correct

Correct! Partitioning is often used with very large data sets.

11. Which MySQL tool can you use to visually design a MySQL database?

0 / 1 point

- ☐ MySQL Workbench
- ☐ mysql
- ☐ mysqladmin
- ☒ phpMyAdmin

Expand

Incorrect

Review the Getting Started with MySQL video.

12. Which command do you use to show the structure of a table?

0 / 1 point

- ☐ DISPLAY
- ☒ SHOW
- ☐ DESCRIBE
- ☐ REPRESENT

Expand

Incorrect

Incorrect. Review the Creating Databases and Tables in MySQL video.

13. What is the maximum size of a data file you can import with phpMyAdmin?

1 / 1 point

- ☐ 1 megabyte
- ☒ 2 megabytes
- ☐ 3 megabytes
- ☐ Unlimited

Expand

Correct

You can import up to 2 megabytes of data at a time using phpMyAdmin.

14. Which of the following is an open source graphical user interface (GUI) that you can use to connect to a Postgres database?

1 / 1 point

- ☒ pgAdmin
- ☐ Navicat
- ☐ PostgreSQL
- ☐ phpAdmin

Expand

Correct

Correct! pgAdmin is both a GUI and an open source tool that connects to a Postgres database.

15. Why would you refresh a materialized view in a PostgreSQL database before you use it?

0 / 1 point

- ☒ The materialized view only stores the data in memory, so it needs to be refreshed to reflect current data.
- ☐ The materialized view stores the data, so if you need to use the most current data you should refresh the view first.
- ☐ You need to refresh a materialized view so you can edit the data.
- ☐ Refreshing a materialized view increases performance.

Expand

Incorrect

Review the Views video.