Quiz

1. Question 1: Data types define the type of data that can be stored in which part of a database table?

○ Index

○ Schemas

○ Rows

◉ Columns

> ✓ **Correct**
> Data types define the type of data that is stored in columns.

2. Question 2: Popularity of cloud databases has more than doubled in the past decade. Which cloud service model is driving this?

○ Commercial databases

○ Platform as a Service (PaaS)

○ Infrastructure as a Service (IaaS)

● Software-as-a-Service (SaaS)

✓ **Correct**
Software-as-a-Service model is driving the rise in popularity of cloud databases.

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

○ Data Access layer

● Database Storage layer

○ Transmission layer

○ Database Engine layer

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

4. Question 4: Which NoSQL functionality does PostgreSQL use to store non-hierarchical data?

○ JSON

○ Functions

● HSTORE

○ Replication

✓ **Correct**
It uses the functionality of NoSQL HSTORE for non-hierarchical data.

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

○ The ERD model helps you to define the data in each row of a table.

○ The ERD model helps you map data types to existing columns and rows.

○ The ERD model helps you to design a database with a single table.

● The ERD model helps you to define entities and their attributes, and map them to tables, and identify the relationships between the tables.

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

○ Delimited text files (local computer)

⦿ Python code

○ Cloud Object Storage (IBM)

○ S3 object storage (AWS)

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

7. Question 7: When creating a foreign key, how can you define an action to take if a parent table row is updated?

○ Use the ON DELETE CASCADE clause

○ Use the ALTER TABLE command

⦿ Use the rule clause

○ Use the CREATE TABLE command

✓ **Correct**
   Use the rule clause to define what action to take if a parent table row is updated or deleted.

8. Question 8: Which of the following is a disadvantage of using Indexes?

○ Guarantees uniqueness of rows

○ Enhances SELECT query performance

⦿ Uses disk space

○ Reduce need to sort data
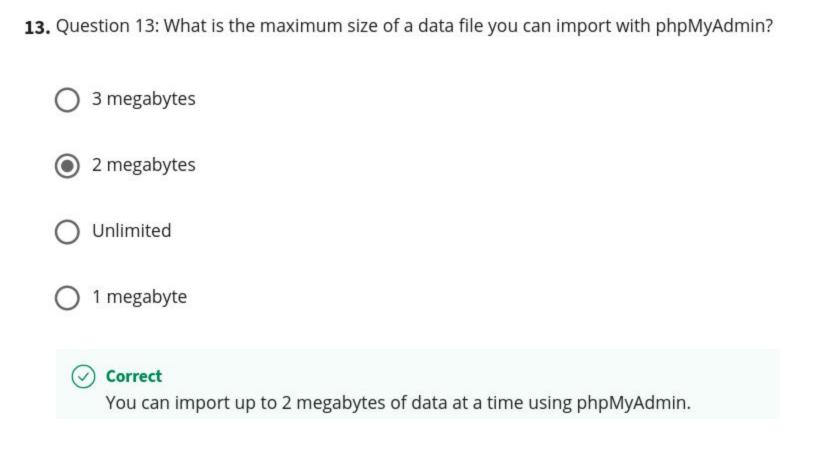
✓ **Correct**
  This is like adding an index to books, it adds more pages.

9. Question 9: Which of the following constraints limits the values accepted by an attribute?

○ Null constraints

○ Unique constraint

● Check constraint

○ Domain constraint

✓ **Correct**
This constraint enforces domain integrity by limiting values that are accepted by attributes.

10. Question 10: What is the difference between system schemas and user schemas?

○ System schemas contain partitions and user schemas contain metadata.

● System schemas store configuration information and metadata.

○ Neither schema contains database objects.

○ Both schemas contain the same objects.

✓ **Correct**
System schemas store configuration information and metadata, while user schemas store the actual data.

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

◯ phpMyAdmin

⦿ MySQL Workbench

◯ mysqladmin

◯ mysql

✓ **Correct**
  MySQL Workbench is a visual database design tool that integrates SQL development, administration, and database design, creation, and maintenance.

12. Question 12: When creating a MySQL database using phpMyAdmin, at which point in the process do you define the length of the data in a column?

○ When you add tables to the database.

○ When you are shown a summary of the structure of the new table.

◉ When you define the columns in the table.

○ When you name the new database.

✓ **Correct**
When you define the columns in a table, you can specify the name, data type, and length (if relevant) for each column.

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

○ 3 megabytes

◉ 2 megabytes

○ Unlimited

○ 1 megabyte

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

14. Question 14: On which operating systems can you install PostgreSQL?

◯ macOS only

⦿ macOS, Microsoft Windows, UNIX

◯ UNIX, UNIX like, or UNIX-based systems

◯ You cannot install PostgreSQL locally, it must be Cloud-based

✓ **Correct**
  You can download and install PostgreSQL on your own servers, on a range of operating systems such as macOS, Windows, UNIX and UNIX-based or UNIX like systems.

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

○ 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.

✓ **Correct**
This is one of the key differences between materialized views and regular views. You must refresh it to reflect the most current data.