

WORKSHEET 1 SQL

Q1 and Q2 have one or more correct answer. Choose all the correct option to answer your question.

1. Which of the following is/are DDL commands in SQL?

A) Create B) Update

C) Delete D) ALTER

Answer :- (A & D)

2. Which of the following is/are DML commands in SQL?

A) Update B) Delete

C) Select D) Drop

Answer :- (A,B,C)

Q3 to Q10 have only one correct answer. Choose the correct option to answer your question.

3. Full form of SQL is:

A) Strut querying language B) Structured Query Language

C) Simple Query Language D) none of them

Answer :- (B)

4. Full form of DDL is:

A) Descriptive Designed Language B) Data Definition Language

C) Data Descriptive Language D) None of the above.

Answer :- (B)

5. DML is:

A) Data Manipulation Language B) Data Management Language

C) Data Modeling Language D) None of these

Answer :- (A)

6. Which of the following statements can be used to create a table with column B int type and C float type?

A) Table A (B int, C float) B) Create A (b int, C float)

C) Create Table A (B int,C float) D) All of them

Answer :- (C)

7. Which of the following statements can be used to add a column D (float type) to the table A created above?

A) Table A (D float) B) Alter Table A ADD COLUMN D float

C) Table A(B int, C float, D float) D) None of them

Answer :- (B)

8. Which of the following statements can be used to drop the column added in the above question?

A) Table A Drop D B) Alter Table A Drop Column D

C) Delete D from A D) None of them

Answer :- (B)

9. Which of the following statements can be used to change the data type (from float to int) of the column D of table A created in above questions?

A) Table A (D float int)

B) Alter Table A Alter Column D int

C) Alter Table A D float int

D) Alter table A Column D float to int

Answer :- (B)

10. Suppose we want to make Column B of Table A as primary key of the table. By which of the following statements we can do it?

A) Alter Table A Add Constraint Primary Key B

B) Alter table (B primary key)

C) Alter Table A Add Primary key B

D) None of them

Answer :- (A)

Q11 to Q15 are subjective answer type questions, Answer them briefly.

11. What is data-warehouse?

Answer: - A data warehouse is a large, centralized repository of data that is optimized for reporting and analysis. Data flows into a data warehouse from transactional systems, relational databases, and other sources. Data is extracted, transformed, and loaded into the data warehouse on a regular schedule, and the data is organized in a way that makes it easy to query and analyze.

12. What is the difference between OLTP VS OLAP?

Answer: - OLTP (Online Transaction Processing) and OLAP (Online Analytical Processing) are both database systems, but they are designed for different purposes and have different characteristics. > OLTP is designed to support a large number of short, online transactions that update the data in a database. It is optimized for inserting, updating and retrieving data, and typically uses a normalized data model. The data is stored in small, granular tables, and is updated in real-time. > OLAP, on the other hand, is designed for complex, analytical queries and reporting. It is optimized for reading large amounts of data and is typically used for business intelligence and decision-making tasks.

In summary, OLTP systems are optimized for transactional processing, while OLAP systems are optimized for analytical processing.

13. What are the various characteristics of data-warehouse?

Answer: - Subject-Oriented: A data warehouse is designed to focus on a specific subject area, such as sales, inventory, or finance.

Integrated: Data in a data warehouse is integrated from various sources and is made consistent.

Non-volatile: Data in a data warehouse is not updated frequently, and once entered, it remains in the system for reporting and analysis.

Time-variant: Data in a data warehouse is stored with a timestamp, which allows for the analysis of historical data over a specific period.

Summarized: Data in a data warehouse is often summarized or aggregated to improve query performance and to simplify reporting.

Read-only: Data in a data warehouse is typically read-only, and any updates to the data are done through a separate, dedicated process.

Large-scale: Data warehouses typically store large amounts of data, often in the terabytes or pet bytes range.

High-performance: Data warehouses are optimized for fast query performance and reporting, through techniques such as indexing, partitioning, and materialized views.

Scalable: Data warehouses are designed to scale horizontally, to support a large number of concurrent users and queries.

Flexible: Data warehouses are designed to support ad-hoc queries and reporting, and to easily accommodate changes in the data model or reporting requirements.

14. What is Star-Schema?

Answer: - A star schema is a database organizational structure optimized for use in a data warehouse or business intelligence that uses a single large fact table to store transactional or measured data, and one or more smaller dimensional tables that store attributes about the data. It is called a star schema because the fact table sits at the center of the logical diagram, and the small dimensional tables branch off to form the points of the star.

15. What do you mean by SETL?

Answer: - ETL stands for Extract, Transform, and Load. It is a process used to move data from one or more sources to a destination, such as a data warehouse or data lake. Extract: The first step in the ETL process is to extract data from the various sources, such as transactional systems, databases, and files. Transform: The extracted data is then transformed to make it consistent, clean and ready for loading into the destination. This step may include data validation, data cleansing, data integration, and data transformation. Load: The transformed data is then loaded into the destination, such as a data warehouse or data lake. This step may include data integration, data indexing, and data optimization.