

WORKSHEET 1 SQL AnswerKey

1. a) CREATE d) ALTER

2.a) update b) delete c)select

3. B) Structured Query Language

4. B) Data Definition Language

5.A) Data Manipulation Language

6. C) Create Table A (B int,C float)

7. B) Alter Table A ADD COLUMN D float

8. B) Alter Table A Drop Column D

9.B) Alter Table A Alter Column D int

10)A) Alter Table A Add Constraint Primary Key B

11. What is data-warehouse?

Ans: A data warehouse is a large, centralized repository of data that is specifically designed to support business intelligence (BI) and analytics activities. The data in a data warehouse is typically extracted from various sources, such as transactional systems, log files, and external data sources, and then transformed, cleansed, and integrated to make it consistent and suitable for analysis.

Data warehouses typically have the following characteristics: They are optimized for read-intensive activities, such as reporting and analysis, rather than write-intensive activities, such as transactional processing.

They store data in a way that is optimized for analysis, such as using a star or snowflake schema.

They store historical data as well as current data, allowing for time-based analysis and trend analysis.

They provide a single, consolidated view of the data, allowing users to access and analyze data from multiple sources in a consistent way.

They support a wide range of analytical tools, such as OLAP, ROLAP, and data mining tools, which allow users to perform advanced analysis such as multidimensional analysis and data mining. Data warehouse systems are used to support business intelligence, analytics and decision making activities.

They provide an integrated view of data across the organization and support complex queries and reporting.

Data Warehouses are usually implemented using specialized software, such as enterprise data warehouse (EDW) platforms and are typically run on large, powerful servers. Regenerate response

12. What is the difference between OLTP VS OLAP?

OLTP (Online Transaction Processing) and OLAP (Online Analytical Processing) are two different types of database systems that are used for different purposes.

OLTP systems are designed to handle a large number of short, online transactions, such as inserting, updating, or deleting records. They are optimized for fast and accurate data processing and are typically used to support day-to-day business operations, such as sales, inventory management, and financial transactions. OLTP systems are typically based on a relational database management system (RDBMS) and use normalized data models to minimize data redundancy and improve data integrity.

OLAP systems, on the other hand, are designed to support complex, multidimensional analysis of large amounts of data. They are optimized for fast query performance and are typically used to support business intelligence (BI) and data mining activities, such as reporting, forecasting, and trend analysis. OLAP systems are typically based on a multidimensional data model, such as a star or snowflake schema, which allows for easy navigation and aggregation of data.

In summary, OLTP is used for transactional processing and designed for handling a large number of short transactions. OLAP is used for analytical processing and designed for handling complex queries and multidimensional analysis of large data sets. They are often used together, with OLTP systems providing the source data for OLAP systems. Regenerate response

13. What are the various characteristics of data-warehouse? 14. What is Star-Schema??

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They support a wide range of analytical tools, such as OLAP, ROLAP, and data mining tools, which allow users to perform advanced analysis such as multidimensional analysis and data mining.

They are built on a specialized software, such as enterprise data warehouse (EDW) platforms, that are powerful and efficient enough to handle large amount of data

They are designed to be flexible and scalable to accommodate the growing data needs of the organization

They are designed to handle both structured and unstructured data

They are designed to provide high-performance query and reporting capabilities

They are designed to support data governance and security

14) What is Star-Schema??

Star-schema is a type of database schema where a central fact table is connected to one or more dimension tables. It is called a star schema because the diagram of the schema resembles a star, with the fact table being at the center and the dimension tables being represented as points on the star. The fact table contains the measures or facts of the data, such as sales, revenue, or quantity, and the dimension tables contain the attributes or dimensions of the data, such as time, product, or location.

Each dimension table is connected to the fact table via a foreign key, and the dimension tables contain the attributes that are used to describe the facts in the fact table. For example, in a sales fact table, the dimension tables might include product, time, and location information. The dimension tables contain the attributes that are used to slice and dice the data in the fact table.

15. What do you mean by SETL?

Ans: SETL (Set-oriented Language) is a programming language designed for the manipulation of sets, which is a collection of distinct items. SETL was designed to be a high-level, easy-to-use language that allows programmers to express complex set-based operations using simple, intuitive commands. SETL was designed to be a powerful tool for solving mathematical problems, and it has been used in various scientific and engineering applications.

SETL is based on set theory, which is a branch of mathematical logic that studies sets, which are collections of objects. SETL is a high-level, interpreted language that is similar to other programming languages such as Fortran, Algol and Pascal. SETL's syntax is similar to mathematical notation and uses set notation to express operations. The language has a number of built-in operations that are commonly used in set theory, such as union, intersection, and difference.