

SQL WORKSHEET 1

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

ANSWER: A] CREATE , D] ALTER

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

ANSWER: A] UPDATE , B]DELETE

3. Full form of SQL is:

ANSWER: B] STRUCTURED QUERY LANGUAGE

4. Full form of DDL is:

ANSWER: B] DATA DEFINITION LANGUAGE

5. DML is:

ANSWER: A] DATA MANIPULATION LANGUAGE

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

ANSWER: C] Create Table A (B int , C float)

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

ANSWER: B) Alter Table A ADD COLUMN D float

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

ANSWER: B) Alter Table A Drop Column D

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?

ANSWER: B) Alter Table A Alter Column D int

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?

ANSWER: A) Alter Table A Add Constraint Primary Key B

11. What is data-warehouse?

ANSWER: A Data warehouse is typically used to connect and analyze business data from heterogeneous sources. The data warehouse is the core of the BI system which is built for data analysis and reporting. It is a blend of technologies and components which aids the strategic use of data. It is electronic storage of a large amount of information by a business which is designed for query and analysis instead of transaction processing.

12. What is the difference between OLTP VS OLAP?

ANSWER: OLTP is an Online Transaction Processing system. The main focus of OLTP system is to record the current Update, Insertion and Deletion while transaction. The OLTP queries are simpler and short and hence require less time in processing, and also requires less space. OLTP database gets updated frequently. It may happen that a transaction in OLTP fails in middle, which may effect data integrity. So, it has to take special care of data integrity. OLTP database has normalized tables (3NF). The best example for OLTP system is an ATM, in which using short transactions we modify the status of our account. OLTP system becomes the source of data for OLAP. OLTP system becomes the source of data for OLAP. The transaction in OLAP are long and hence take comparatively more time for processing and requires large space. The transactions in OLAP are less frequent as compared to OLTP. Even the tables in OLAP database may not be normalized. The example for OLAP is to view a financial report, or budgeting, marketing management, sales report, etc.

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

ANSWER: The major characteristics of data warehouse are:

Subject-oriented: A data warehouse is always a subject oriented as it delivers information about a theme instead of organization's current operations. It can be achieved on specific theme. That means the data warehousing process is

proposed to handle with a specific theme which is more defined. These themes can be sales, distributions, marketing etc.

Integrated:

It is somewhere same as subject orientation which is made in a reliable format. Integration means founding a shared entity to scale the all similar data from the different databases. The data also required to be resided into various data warehouse in shared and generally granted manner.

Time-Variant: In this data is maintained via different intervals of time such as weekly, monthly, or annually etc. It finds various time limit which are structured between the large datasets and are held in online transaction process (OLTP). The time limits for data warehouse is wide-ranged than that of operational systems. The data resided in data warehouse is predictable with a specific interval of time and delivers information from the historical perspective. It comprises elements of time explicitly or implicitly. Another feature of time-variance is that once data is stored in the data warehouse then it cannot be modified, alter, or updated.

Non-Volatile: As the name defines the data resided in data warehouse is permanent. It also means that data is not erased or deleted when new data is inserted. It includes the mammoth quantity of data that is inserted into modification between the selected quantities on logical business. It evaluates the analysis within the technologies of warehouse.

14.What is Star-Schema?

ANSWER: Star Schema in data warehouse, in which the center of the star can have one fact table and a number of associated dimension tables. It is known as star schema as its structure resembles a star. The Star Schema data model is the simplest type of Data Warehouse schema. It is also known as Star Join Schema and is optimized for querying large data sets.

Characteristics of Star Schema:

Every dimension in a star schema is represented with the only one-dimension table.

The dimension table should contain the set of attributes.

The dimension table is joined to the fact table using a foreign key

The dimension table are not joined to each other

Fact table would contain key and measure

The Star schema is easy to understand and provides optimal disk usage.

15.What do you mean by SETL?

ANSWER: In order to create better decisions for business analytics, organizations increasingly use external structured, semi-structured, and unstructured data in addition to the (mostly structured) internal data. Current Extract-Transform-Load (ETL) tools are not suitable for this “open world scenario” because they do not consider semantic issues in the integration processing. Current ETL tools neither support processing semantic data nor create a semantic Data Warehouse (DW), a repository of semantically integrated data. This paper describes our programmable Semantic ETL (SETL) framework. SETL builds on Semantic Web (SW) standards and tools and supports developers by offering a number of powerful modules, classes, and methods for (dimensional and semantic) DW constructs and tasks. Thus it supports semantic data sources in addition to traditional data sources, semantic integration, and creating or publishing a semantic (multidimensional) DW in terms of a knowledge base. A comprehensive experimental evaluation comparing SETL to a solution made with traditional tools (requiring much more hand-coding) on a concrete use case, shows that SETL provides better programmer productivity, knowledge base quality, and performance. To create better decisions for business analytics, organizations increasingly use external structured, semi-structured, and unstructured data in addition to the (mostly structured) internal data. Current Extract-Transform-Load (ETL) tools are not suitable for this “open world scenario” because they do not consider semantic issues in the integration processing. Current ETL tools neither support processing semantic data nor create a semantic Data Warehouse (DW), a repository of semantically integrated data. This paper describes our programmable Semantic ETL (SETL) framework. SETL builds on Semantic Web

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