

## SQL WORKSHEETS

1. D
2. A & B
3. B
4. B
5. A
6. C
7. B
8. B
9. B
10. C

11. What is data-warehouse?

A relational database management system (RDBMS) concept called a data warehouse was created to address the needs of transaction processing systems. Any centralized data repository that may be accessed for commercial advantages can be broadly characterized as such. It is a database that holds data intended to satiate inquiry-based decision-making. It is a collection of technologies designed to aid in decision-making and empower knowledge workers (executive, manager, and analyst). In order to help corporate executives systematically organize, comprehend, and apply their information to make strategic decisions, data warehousing supports structures and tools.

12. What is the difference between OLTP VS OLAP?

Sr. No.	Parameters	OLTP	OLAP
1	Process	It is an online transactional system. It manages database modification.	OLAP is an online analysis and data retrieving process.
2	Characteristic	It is characterized by large numbers of short online transactions.	It is characterized by a large volume of data.
3	Functionality	OLTP is an online database modifying system.	OLAP is an online database query management system.
4	Method	OLTP uses traditional DBMS.	OLAP uses the data warehouse.
5	Query	Insert, Update, and Delete information from the database.	Mostly select operations
6	Table	Tables in OLTP database are normalized.	Tables in OLAP database are not normalized.
7	Source	OLTP and its transactions are the sources of data.	Different OLTP databases become the source of data for OLAP.

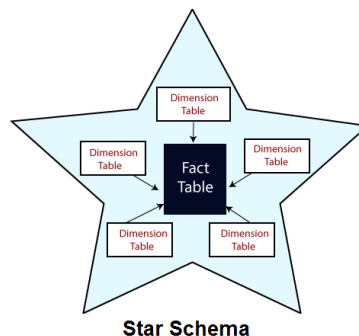
13. What are the various characteristics of data-warehouse?

Few of the characteristics of data-warehouse are as follows

- i. Subject-oriented: A data warehouse typically provides information on a topic (such as a sales inventory or supply chain) rather than company operations.
- ii. Time-variant: Time variant keys (e.g., for the date, month, time) are typically present.
- iii. Integrated: A data warehouse combines data from various sources. These may include a cloud, relational databases, flat files, structured and semi-structured data, metadata, and master data. The sources are combined in a manner that's consistent, relatable, and ideally certifiable, providing a business with confidence in the data's quality.
- iv. Persistent and non-volatile: Prior data isn't deleted when new data is added. Historical data is preserved for comparisons, trends, and analytics.

14. What is Star-Schema??

The simplest kind of a dimensional model, in which data are arranged into facts and dimensions, is known as a star schema. A fact is an occurrence that can be measured or quantified, such a purchase or sign-in. A dimension contains reference information about the fact, such as the date, the thing, or the person. A relational schema called a star schema is one whose design corresponds to a multidimensional data model. The explicit data warehouse schema is the star schema. Because the entity-relationship diagram of these schemas replicates a star with points that diverge from a central table, it is known as a star schema. A sizable fact table serves as the schema's central component, and the dimension tables serve as its points.



15. What do you mean by SETL?

(SET Theory Language) A programming language developed by Jack Schwartz in the early 1970s. It is based on set theory and used for mathematical and telecommunications applications.