**WORKSHEET-4**

**SQL**

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

**Ans. A) Create**

**D) ALTER**

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

**Ans. A) Update**

**B) Delete**

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

3. Full form of SQL is:

**Ans. B) Structured Query Language**

4. Full form of DDL is:

**Ans. B) Data Definition Language**

5. DML is:

**Ans. 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?

**Ans.** **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?

**Ans. 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?

**Ans.** **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?

**Ans 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?

**Ans.** **C) Alter Table A Add Primary key B**

11. What is data-warehouse?

Ans. A **data warehouse** is a relational or multidimensional database that is designed for query and analysis. ... A **data warehouse** usually stores many months or years of **data** to support historical analysis.

12. What is the difference between OLTP VS OLAP?

**Ans.**

|  |  |  |
| --- | --- | --- |
|  | **OLTP System  Online Transaction Processing  (Operational System)** | **OLAP System  Online Analytical Processing  (Data Warehouse)** |
| Source of data | Operational data; OLTPs are the original source of the data. | Consolidation data; OLAP data comes from the various OLTP Databases |
| Purpose of data | To control and run fundamental business tasks | To help with planning, problem solving, and decision support |
| What the data | Reveals a snapshot of ongoing business processes | Multi-dimensional views of various kinds of business activities |
| Inserts and Updates | Short and fast inserts and updates initiated by end users | Periodic long-running batch jobs refresh the data |
| Queries | Relatively standardized and simple queries Returning relatively few records | Often complex queries involving aggregations |
| Processing Speed | Typically very fast | Depends on the amount of data involved; batch data refreshes and complex queries may take many hours; query speed can be improved by creating indexes |
| Space Requirements | Can be relatively small if historical data is archived | Larger due to the existence of aggregation structures and history data; requires more indexes than OLTP |
| Database Design | Highly normalized with many tables | Typically de-normalized with fewer tables; use of star and/or snowflake schemas |
| Backup and Recovery | Backup religiously; operational data is critical to run the business, data loss is likely to entail significant monetary loss and legal liability | Instead of regular backups, some environments may consider simply reloading the OLTP data as a recovery method |

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

**Ans.** There are three prominent data warehouse characteristics:

* **Integrated**: The way data is extracted and transformed is uniform, regardless of the original source.
* **Time-variant**: Data is organized via time-periods (weekly, monthly, annually, etc.).
* **Non-volatile**: A data warehouse is not updated in real-time. It is periodically updated via the uploading of data, protecting it from the influence of momentary change.

14. What is Star-Schema??

**Ans.** The **star schema** is the simplest style of data mart **schema** and is the approach most widely used to develop data warehouses and dimensional data marts. The **star schema** consists of one or more fact tables referencing any number of dimension tables.

15. What do you mean by SETL?

**Ans.** **SET T**heory 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.