ASSIGNMENT

WORKSHEET 6 SQL

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

1. Which of the following are TCL commands?

A. Commit

B. Select

C. Rollback

D. Savepoint

Ans: A. Commit C. Rollback D. Savepoint

2. Which of the following are DDL commands?

A. Create

B. Select

C. Drop

D. Alter

Ans**: A. Create C. Drop D. Alter**

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

3. Which of the following is a legal expression in SQL?

A. SELECT NULL FROM SALES;

B. SELECT NAME FROM SALES;

C. SELECT * FROM SALES WHEN PRICE = NULL;

D. SELECT # FROM SALES;

Ans: B. SELECT NAME FROM SALES;

4. DCL provides commands to perform actions like

A. Change the structure of Tables

B. Insert, Update or Delete Records and Values

C. Authorizing Access and other control over Database

D. None of the above

Ans: C. Authorizing Access and other control over Database

5. Which of the following should be enclosed in double quotes?

A. Dates

B. Column Alias

C. String

D. All of the mentioned

Ans: B. Column Alias

6. Which of the following command makes the updates performed by the transaction permanent in the database?

A. ROLLBACK

B. COMMIT

C. TRUNCATE

D. DELETE

Ans: B. COMMIT

7. A subquery in an SQL Select statement is enclosed in:

A. Parenthesis - (...).

B. brackets - [...].

C. CAPITAL LETTERS.

D. braces - {...}.

Ans: **A. Parenthesis - (...).**

8. The result of a SQL SELECT statement is a :-

A. FILE

B. REPORT

C. TABLE

D. FORM

Ans: C. TABLE

9. Which of the following do you need to consider when you make a table in a SQL?

A. Data types

B. Primary keys

C. Default values

D. All of the mentioned

Ans: D. All of the mentioned

10. If you don't specify ASC and DESC after a SQL ORDER BY clause, the following is used by___?

A. ASC

B. DESC

C. There is no default value

D. None of the mentioned

Ans: **A. ASC**

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

11. What is denormalization?

Ans: Denormalization is **the process of adding precomputed redundant data to an otherwise normalized relational database to improve read performance of the database**. Normalizing a database involves removing redundancy so only a single copy exists of each piece of information.

With denormalization, the database administrator selectively adds back specific instances of redundant data *after* the data structure has been normalized. A denormalized database should not be confused with a database that has never been normalized.

Denormalization has become commonplace in database design. Advancing technology is addressing many of the issues presented by denormalization, while the decrease in cost of both disk and RAM storage has reduced the impact of storing redundant data for denormalized databases. Additionally, increased emphasis on read performance and making data quickly available has necessitated the use of denormalization in many databases.

12. What is a database cursor?

Ans: A database cursor is **an identifier associated with a group of rows**.

It is, in a sense, a pointer to the current row in a buffer.

You must use a cursor in the following cases:

Statements that return more than one row of data from the database server:

A SELECT statement requires a select cursor.

An EXECUTE FUNCTION statement requires a function cursor.

13. What are the different types of the queries?

Ans: Five types of SQL queries are 1) **Data Definition Language (DDL) 2) Data Manipulation Language (DML) 3) Data Control Language(DCL) 4) Transaction Control Language(TCL) and, 5) Data Query Language (DQL)**

- Data Definition Language(DDL) helps you to define the database structure or schema.

  The five DDL commands are:

  - Create
  - Drop
  - Alter
  - truncate

- Data Manipulation Language (DML) allows you to modify the database instance by inserting, modifying, and deleting its data.

  There are three basic constructs which allow database program and user to enter data and information are:

    - INSERT

    - UPDATE

    - DELETE

- DCL (Data Control Language) includes commands like

  - GRANT and
  - REVOKE, which are useful to give "rights & permissions."

- Transaction control language or TCL commands deal with the transaction within the database.

  - COMMIT
  - ROLLBACK
  - SAVEPOINT

- Data Query Language (DQL) is used to fetch the data from the database.

- SELECT

14. Define constraint?

Ans: SQL constraints are **used to specify rules for the data in a table**. Constraints are used to limit the type of data that can go into a table. This ensures the accuracy and reliability of the data in the table. If there is any violation between the constraint and the data action, the action is aborted.

15. What is auto increment?

Ans: Auto-increment allows a unique number to be generated automatically when a new record is inserted into a table.

Often this is the primary key field that we would like to be created automatically every time a new record is inserted.

MySQL uses the AUTO_INCREMENT keyword to perform an auto-increment feature.

By default, the starting value for AUTO_INCREMENT is 1, and it will increment by 1 for each new record.

To let the AUTO_INCREMENT sequence start with another value, use the following SQL statement:

ALTER TABLE Persons AUTO_INCREMENT=100;