10) How to add columns in MySQL?

A column is a series of cells in a table that stores one value for each row in a table. We can add columns in an existing table using the ALTER TABLE statement as follows:

1. **ALTER TABLE** table_name
2. **ADD COLUMN** column_name column_definition [**FIRST|AFTER** existing_column];

To read more information, [click here.](#)

---

11) How to delete a table in MySQL?

We can delete a table in MySQL using the Drop Table statement. This statement removes the complete data of a table, including structure and definition from the database permanently. Therefore, it is required to be careful while deleting a table. After using the statement, we cannot recover the table in MySQL. The statement is as follows:

1. **DROP TABLE** table_name;

To read more information, [click here](#).

---

12) How to add foreign keys in MySQL?

The foreign key is used to link one or more tables together. It matches the primary key field of another table to link the two tables. It allows us to create a parent-child relationship with the tables. We can add a foreign key to a table in two ways:

o   Using the CREATE TABLE Statement

o   Using the ALTER TABLE Statement

Following is the syntax to define a foreign key using CREATE TABLE OR ALTER TABLE statement:

1. [**CONSTRAINT** constraint_name]
2. **FOREIGN KEY** [foreign_key_name] (col_name, ...)
3. **REFERENCES** parent_tbl_name (col_name,...)

20) How to change the column name in MySQL?

While creating a table, we have kept one of the column names incorrectly. To change or rename an existing column name in MySQL, we need to use the ALTER TABLE and CHANGE commands together. The following are the syntax used to rename a column in MySQL:

1. **ALTER TABLE** table_name

2. CHANGE **COLUMN** old_column_name new_column_name column_definition [**FIRST** | **AFTER** existing_column];

Suppose the column's current name is S_ID, but we want to change this with a more appropriate title as Stud_ID. We will use the below statement to change its name:

1. **ALTER TABLE** Student CHANGE **COLUMN** S_ID Stud_ID **varchar**(10);

---

21) How to delete columns in MySQL?

We can remove, drop, or delete one or more columns in an existing table using the ALTER TABLE statement as follows:

1. **ALTER TABLE** table_name **DROP COLUMN** column_name1, column_name2....;

To read more information, [click here.](#)

---

22) How to insert data in MySQL?

We can insert data in a MySQL table using the INSERT STATEMENT. This statement allows us to insert single or multiple rows into a table. The following is the basic syntax to insert a record into a table:

1. **INSERT INTO** table_name (field1, field2,...fieldN)
2. **VALUES** (value1, value2,...valueN);

If we want to insert more than one rows into a table, use the below syntax:

1. **INSERT INTO table**(field1, field2,...fieldN)
2. **VALUES**
3.   (value1, value 2, ...),
4.   (value1, value2, ...),
5.   ...
6.   (value1, value2, ...);

To read more information, [click here](#).

---

23) How to delete a row in MySQL?

We can delete a row from the MySQL table using the DELETE STATEMENT within the database. The following is the generic syntax of DELETE statement in MySQL to remove one or more rows from a table:

1. **DELETE FROM** table_name **WHERE** Condition_specified;

It is noted that if we have not specified the WHERE clause with the syntax, this statement will remove all the records from the given table.

To read more information, click here.

---

24) How to join two tables in MySQL?

We can connect two or more tables in MySQL using the JOIN clause. MySQL allows various types of JOIN clauses. These clauses connect multiple tables and return only those records that match the same value and property in all tables. The following are the four easy ways to join two or more tables in MySQL:

o   Inner Join

o   Left Join

o   Right Join

o   Cross Join

To read more information, click here.

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25) How to join three tables in MySQL?

Sometimes we need to fetch data from three or more tables. There are two types available to do these types of joins. Suppose we have three tables named Student, Marks, and Details.

Let's say Student has (stud_id, name) columns, Marks has (school_id, stud_id, scores) columns, and Details has (school_id, address, email) columns.

1. Using SQL Join Clause

This approach is similar to the way we join two tables. The following query returns result from three tables:

1. **SELECT name**, scores, address, email **FROM** Student s
2. **INNER** JOIN Marks m **on** s.stud_id = m.stud_id
3. **INNER** JOIN Details d **on** d.school_id = m.school_id;

2. Using Parent-Child Relationship

It is another approach to join more than two tables. In the above tables, we have to create a parent-child relationship. First, create column X as a primary key in one table and as a foreign key in another table. Therefore, stud_id is the primary key in the Student table and will be a foreign key in the Marks table. Next, school_id is the primary key in the Marks table and will be a foreign key in the Details table. The following query returns result from three tables:

1. **SELECT name**, scores, address, email

2. **FROM** Student s, Marks m, Details d

3. **WHERE** s.stud_id = m.stud_id AND m.school_id = d.school_id;

To read more information about the foreign key, click here.

---

26) How to update the table in MySQL?

We can update existing records in a table using the UPDATE statement that comes with the SET and WHERE clauses. The SET clause changes the values of the specified column. The WHERE clause is optional, which is used to specify the condition. This statement can also use to change values in one or more columns of a single row or multiple rows at a time. Following is a generic syntax of UPDATE command to modify data into the MySQL table:

1. **UPDATE** table_name

2. **SET** field1=new-value1, field2=new-value2, ...

3. [**WHERE** Clause]

To read more information, click here.

28) How to drop the primary key in MySQL?

MySQL primary key is a single or combination of the field used to identify each record in a table uniquely. A primary key column cannot be null or empty. We can remove or delete a primary key from the table using the ALTER TABLE statement. The following syntax is used to drop the primary key:

1. **ALTER TABLE** table_name **DROP PRIMARY KEY**;

To read more information, click here.

---

29) How to create a Stored Procedure in MySQL?

A stored procedure is a group of SQL statements that we save in the database. The SQL queries, including INSERT, UPDATE, DELETE, etc. can be a part of the stored procedure. A procedure allows us to use the same code over and over again by executing a single statement. It stores in the database data dictionary.

We can create a stored procedure using the below syntax:

1. **CREATE PROCEDURE** procedure_name [(parameter datatype [, parameter datatype])]

2. **BEGIN**

3.   Body_section **of** SQL statements

4. **END**;

This statement can return one or more value through parameters or may not return any result. The following example explains it more clearly:

1. DELIMITER $$

2. **CREATE PROCEDURE** get_student_info()

3. **BEGIN**

4. **SELECT** * **FROM** Student_table;

5. **END**$$

To read more information, [click here](#).

32) How to create a Trigger in MySQL?

A trigger is a procedural code in a database that automatically invokes whenever certain events on a particular table or view in the database occur. It can be executed when records are inserted into a table, or any columns are being updated. We can create a trigger in MySQL using the syntax as follows:

1. **CREATE TRIGGER** trigger_name

2.   [before | **after**]

3.   {**insert** | **update** | **delete**}

4.   **ON** table_name [**FOR** EACH ROW]

5.   **BEGIN**

6.   --variable declarations

7.   --trigger code

8.   **END**;

To read more information, [click here](#).

34) How to create a new user in MySQL?

A USER in MySQL is a record in the USER-TABLE. It contains the login information, account privileges, and the host information for MySQL account to access and manage the databases. We can create a new user account in the database server using the MySQL Create User statement. It provides authentication, SSL/TLS, resource-limit, role, and password management properties for the new accounts.

The following is the basic syntax to create a new user in MySQL:

1. **CREATE** USER [IF NOT EXISTS] account_name IDENTIFIED **BY** 'password';

To read more information, [click here](#).

37) How to insert Date in MySQL?

MySQL allows us to use the INSERT STATEMENT to add the date in MySQL table. MySQL provides several data types for storing dates such as DATE, TIMESTAMP, DATETIME, and YEAR. The default format of the date in MySQL is YYYY-MM-DD. Following is the basic syntax to insert date in MySQL table:

1. **INSERT INTO** table_name (column_name, column_date) **VALUES** ('DATE: Manual Date', '2008-7-04');

If we want to insert a date in the mm/dd/yyyy format, it is required to use the below statement:

1. **INSERT INTO** table_name **VALUES** (STR_TO_DATE(date_value, format_specifier));

42) How to set auto increment in MySQL?

Auto Increment is a constraint that automatically generates a unique number while inserting a new record into the table. Generally, it is used for the primary key field in a table. In MySQL, we can set the value for an AUTO_INCREMENT column using the ALTER TABLE statement as follows:

1. **ALTER TABLE** table_name AUTO_INCREMENT = value;

43) How to find the second highest salary in MySQL?

MySQL uses the LIMIT keyword, which can be used to limit the result set. It will allow us to get the first few rows, last few rows, or range of rows. It can also be used to find the second, third, or nth highest salary. It ensures that you have use order by clause to sort the result set first and then print the output that provides accurate results. The following query is used to get the second highest salary in MySQL:

1. **SELECT** salary

2. **FROM** (**SELECT** salary **FROM** employees **ORDER BY** salary **DESC** LIMIT 2) **AS** Emp **OR DER BY** salary LIMIT 1;

There are some other ways to find the second highest salary in MySQL, which are given below:

This statement uses subquery and IN clause to get the second highest salary:

1. **SELECT MAX**(salary)

2. **FROM** employees

3. **WHERE** salary NOT IN (**SELECT Max**(salary) **FROM** employees);

This query uses subquery and < operator to return the second highest salary:

1. **SELECT MAX**(salary) **From** employees

2. **WHERE** salary < (**SELECT Max**(salary) **FROM** employees);

60) How to display the nth highest salary from a table in a MySQL query?

Let us take a table named the employee.

To find Nth highest salary is:

select distinct(salary)from employee order by salary desc limit n-1,1

if you want to find 3rd largest salary:

select distinct(salary)from employee order by salary desc limit 2,1

44) What is the difference between TRUNCATE and DELETE in MySQL?

- TRUNCATE is a DDL command, and DELETE is a DML command.

- It is not possible to use Where command with TRUNCATE QLbut you can use it with DELETE command.

- TRUNCATE cannot be used with indexed views, whereas DELETE can be used with indexed views.

- The DELETE command is used to delete data from a table. It only deletes the rows of data from the table while truncate is a very dangerous command and should be used carefully because it deletes every row permanently from a table.

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45) How many Triggers are possible in MySQL?

There are only six Triggers allowed to use in the MySQL database.

1. Before Insert

2. After Insert

3. Before Update

4. After Update

5. Before Delete

6. After Delete

46) How to get the current date in MySQL?

To get current date, use the following syntax:

1. **SELECT CURRENT_DATE**();

65) What is the query to display the top 20 rows?

SELECT * FROM table_name LIMIT 0,20;

---

66) Write a query to display the current date and time?

If you want to display the current date and time, use -

SELECT NOW();

If you want to display the current date only, use:

SELECT CURRENT_DATE();

71) Write a query to count the number of rows of a table in MySQL.

SELECT COUNT user_id FROM users;

---

72) Write a query to retrieve a hundred books starting from 20th.

SELECT book_title FROM books LIMIT 20, 100;

---

73) Write a query to select all teams that won either 1, 3, 5, or 7 games.

SELECT team_name FROM team WHERE team_won IN (1, 3, 5, 7);

---

74) What is the default port of MySQL Server?

The default port of MySQL Server is 3306.

92) What are DDL, DML, and DCL?

Majorly SQL commands can be divided into three categories, i.e., DDL, DML & DCL. Data Definition Language (DDL) deals with all the database schemas, and it defines how the data should reside in the database. Commands like CreateTABLE and ALTER TABLE are part of DDL.

Data Manipulative Language (DML) deals with operations and manipulations on the data. The commands in DML are Insert, Select, etc.

Data Control Languages (DCL) are related to the Grant and permissions. In short, the authorization to access any part of the database is defined by these