

1. Mention the differences between the delete, drop and truncate commands

TRUNCATE

TRUNCATE Command is a Data Definition Language operation. It is used to remove all the records from a table. It deletes all the records from an existing table **but not the table itself**. The structure or schema of the table is preserved.

Truncate command marks the table for deallocation. This operation removes all the data from a table bypassing a number of constraints enforced on the table. MySQL does not allow the users to truncate the table which is referenced as FOREIGN KEY in another table.

TRUNCATE TABLE statement is a DDL command so it can not be rolled back.

The Truncate command resets the AUTO_INCREMENT counters on the table.

DELETE

The DELETE statement in SQL is a Data Manipulation Language(DML) Command. It is used to delete existing records from an existing table. We can delete a single record or multiple records depending on the condition specified in the query.

The conditions are specified in the WHERE clause of the DELETE statement. If we omit the WHERE clause then all of the records will be deleted and the table will be empty.

The DELETE statement scans every row before deleting it. Thus it is slower as compared to TRUNCATE command. If we want to delete all the records of a table, it is preferable to use TRUNCATE in place of DELETE as the former is faster than the latter.

DELETE is a DML Command so it can be rolled back.

DROP

DROP statement is a Data Definition Language(DDL) Command which is used to delete existing database objects. It can be used to delete databases, tables, views, triggers, etc.

A DROP statement in SQL removes a component from a relational database management system (RDBMS).

DROP is a DDL Command. Objects deleted using DROP are permanently lost and it cannot be rolled back.

Unlike TRUNCATE which only deletes the data of the tables, the DROP command deletes the data of the table as well as removes the entire schema/structure of the table from the database.

Difference between Stored Procedure, SQL Function, and Trigger

Executable

Store procedure: We can execute the stored procedures when required.

Function: We can call a function whenever required. Function can't be executed because a function is not in pre-compiled form.

Trigger: Trigger can be executed automatically on specified action on a table like, update, delete, or update.

Calling

Stored procedure: Stored Procedures can't be called from a function because functions can be called from a select statement and Stored Procedures can't be called from. But you can call Store Procedure from Trigger.

Function: Function can be called from Store Procedure or Trigger.

Trigger: Trigger can't be called from Store Procedure or Function.

Parameter

Store procedure: Stored Procedures can accept any type of parameter. Stored Procedures also accept out parameter.

Function: Function can accept any type of parameter. But function can't accept out parameter.

Trigger: We can't pass a parameter to trigger.