SQL DROP TABLE Statement

The SQL DROP TABLE Statement

The `DROP TABLE` statement is used to drop an existing table in a database.

Syntax

```
DROP TABLE table_name;
```

Note: Be careful before dropping a table. Deleting a table will result in loss of complete information stored in the table!

SQL TRUNCATE TABLE

The `TRUNCATE TABLE` statement is used to delete the data inside a table, but not the table itself.

Syntax

```
TRUNCATE TABLE table_name;
```

SQL DELETE Statement

The SQL DELETE Statement

The `DELETE` statement is used to delete existing records in a table.

DELETE Syntax

```
DELETE FROM table_name WHERE condition;
```

Note: Be careful when deleting records in a table! Notice the `WHERE` clause in the `DELETE` statement. The `WHERE` clause specifies which record(s) should be deleted. If you omit the `WHERE` clause, all records in the table will be deleted!

Delete All Records

It is possible to delete all rows in a table without deleting the table. This means that the table structure, attributes, and indexes will be intact:

DELETE FROM *table_name*;

Difference Between DROP DELETE and TRUNCATE: DROP vs DELETE vs TRUNCATE

	DROP	DELETE	TRUNCATE
Definition	It completely removes the table from the database.	It removes one or more records from the table.	It removes all the rows from the existing table
Type of Command	It is a DDL command	It is a DML command	It is a DDL command
Syntax	DROP TABLE table_name;	DELETE FROM tble_nameWHERE conditions;	TRUNCATE TABLE table_name;
Memory Management	It completely removes the allocated space for the table from memory.	It doesn't free the allocated space of the table.	It doesn't free the allocated space of the table.
Effect on Table	Removes the entire table structure.	Doesn't affect the table structure	Doesn't affect the table structure

Speed and Performance	It is faster than DELETE but slower than TRUNCATE as it firstly deletes the rows and then the table from the database.	It is slower than the DROP and TRUNCATE commands as it deletes one row at a time based on the specified conditions.	It is faster than both the DELETE and DROP commands as it deletes all the records at a time without any condition.
Use with WHERE clause	Not applicable as it operates on the entire table	Can be used	It can't be used as it is applicable to the entire table