CREATE TABLE

We have learned above about creating databases. Now to store the data we need a table to do that. The CREATE TABLE statement is used to create a table in SQL. We know that a table comprises of rows and columns. So while creating tables we have to provide all the information to SQL about the names of the columns, type of data to be stored in columns, size of the data etc. Let us now dive into details on how to use CREATE TABLE statement to create tables in SQL.

Syntax:

```
CREATE TABLE table_name
(
column1 data_type(size),
column2 data_type(size),
column3 data_type(size),
....
);
```

table_name: name of the table.

column1 name of the first column.

data_type: Type of data we want to store in the particular column.

For example, **int** for integer data.

size: Size of the data we can store in a particular column. For example if for

a column we specify the data_type as int and size as 10 then this column can store an integer

number of maximum 10 digits.

Example Query:
This query will create a table named Students with three columns, ROLL_NO, NAME and SUBJECT.

```
CREATE TABLE Students
(
ROLL_NO int(3),
NAME varchar(20),
SUBJECT varchar(20),
);
```

ALTER TABLE

ALTER TABLE is used to add, delete/drop or modify columns in the existing table. It is also used to add and drop various constraints on the existing table.

ALTER TABLE – ADD

ADD is used to add columns into the existing table. Sometimes we may require to add additional information, in that case we do not require to create the whole database again, **ADD** comes to our rescue.

Syntax:

ALTER TABLE table_name

ADD (Columnname_1 datatype,

Columnname_2 datatype,

…

Columnname_n datatype);

ALTER TABLE – DROP:

DROP COLUMN is used to drop column in a table. Deleting the unwanted columns from the table.

Syntax:

ALTER TABLE table_name

DROP COLUMN column_name;

ALTER TABLE-MODIFY

It is used to modify the existing columns in a table. Multiple columns can also be modified at once.
**Syntax may vary slightly in different databases.*

Syntax(Oracle,MySQL,MariaDB):

ALTER TABLE table_name

MODIFY column_name column_type;

Syntax(SQL Server):

ALTER TABLE table_name

ALTER COLUMN column_name column_type;

Queries

Sample Table: Student

ROLL_NONAME

1 Ram

2 Abhi

3 Rahul

4 Tanu

QUERY:

- To ADD 2 columns AGE and COURSE to table Student.

ALTER TABLE Student ADD (AGE number(3),COURSE varchar(40));

OUTPUT:

ROLL_NONAME AGECOURSE

1 Ram

2 Abhi

3 Rahul

4 Tanu

- MODIFY column COURSE in table Student

ALTER TABLE Student MODIFY COURSE varchar(20);

After running the above query maximum size of Course Column is reduced to 20 from 40.

- DROP column COURSE in table Student.

ALTER TABLE Student DROP COLUMN COURSE;

OUTPUT:

ROLL_NO	NAME	AGE
1	Ram	
2	Abhi	
3	Rahul	
4	Tanu	

DROP

DROP is used to delete a whole database or just a table.The DROP statement destroys the objects like an existing database, table, index, or view.
A DROP statement in SQL removes a component from a relational database management system (RDBMS).

Syntax:

DROP object object_name

Examples:

DROP TABLE table_name;

table_name: Name of the table to be deleted.

DROP DATABASE database_name;

database_name: Name of the database to be deleted.

TRUNCATE

TRUNCATE statement is a Data Definition Language (DDL) operation that is used to mark the extents of a table for deallocation (empty for reuse). The result of this operation quickly removes all data from a table, typically bypassing a number of integrity enforcing mechanisms. It was officially introduced in the SQL:2008 standard.
The TRUNCATE TABLE mytable statement is logically (though not physically) equivalent to the DELETE FROM mytable statement (without a WHERE clause).

Syntax:

TRUNCATE TABLE table_name;

table_name: Name of the table to be truncated.

DATABASE name - student_data