

DATABASE MANAGEMENT SYSTEM

SQL – TABLE

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TABLES

The CREATE TABLE statement, defines a new table(Relation) in the database and prepares it to accept data. The various clauses of the statement specify the elements of the table definition. Once the table has been created, you can fill it with data.

Creating a basic table involves naming the table and defining its columns and each column's data type.

The SQL **CREATE TABLE** statement is used to create a new table.

Syntax:

Basic syntax of CREATE TABLE statement is as follows:

```
CREATE TABLE table_name(  
column1 datatype,  
column2 datatype,  
column3 datatype,  
.....  
columnN datatype,  
PRIMARY KEY( one or more columns )  
);
```

- CREATE TABLE is the keyword telling the database system what you want to do.

In this case, you want to create a new table.

The unique name or identifier for the table follows the CREATE TABLE statement.

Then in brackets comes the list defining each column in the table and what sort of data type it is.

A copy of an existing table can be created using a combination of the CREATE TABLE statement and the SELECT statement. You can check complete details at [Create Table Using another Table](#).

Example:

Following is an example, which creates a CUSTOMERS table with ID as primary key and NOT NULL are the constraints showing that these fields can not be NULL while creating records in this table:

```
SQL> CREATE TABLE CUSTOMERS(  
    ID INT NOT NULL,  
    NAME VARCHAR (20) NOT NULL,  
    AGE INT NOT NULL,  
    ADDRESS CHAR (25) ,  
    SALARY DECIMAL (18, 2),  
    PRIMARY KEY (ID)  
);
```

You can verify if your table has been created successfully by looking at the message displayed by the SQL server, otherwise you can use DESC command as follows:

```
SQL> DESC CUSTOMERS;
```

```
+-----+-----+-----+-----+-----+-----+
| Field | Type  | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| ID    | int(11) | NO   | PRI |         |       |
| NAME  | varchar(20) | NO |         |         |       |
| AGE   | int(11) | NO   |         |         |       |
| ADDRESS | char(25) | YES  |         | NULL    |       |
| SALARY | decimal(18,2) | YES |         | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

```
5 rows in set (0.00 sec)
```

Now, you have CUSTOMERS table available in your database which you can use to store required information related to customers.

Modifying Relations: (ALTER TABLE STATEMENT)

After a table has been in use for some time, users often discover that they want to store additional information about the entities represented in the table.

The ALTER TABLE statement can:

- Add a column definition to a table
- Drop a column from a table
- Change the default value for a column
- Add or drop a primary key for a table
- Add or drop a new foreign key for a table
- Add or drop a uniqueness constraint for a table
- Add or drop a check constraint for a table.

The SQL DROP TABLE statement is used to remove a table definition and all data, indexes, triggers, constraints, and permission specifications for that table.

Once a table is deleted then all the information available in the table would also be lost forever.

Syntax:

Basic syntax of DROP TABLE statement is as follows:

```
DROP TABLE table_name;
```