

Create Database: Syntax

```
CREATE DATABASE database_name;
```

Create Database: Example

```
CREATE DATABASE DBMS_Lab;
```

CREATE TABLE: Syntax

```
CREATE TABLE table_name (  
    column1_name datatype Size constraints,  
    column2_name datatype Size constraints,  
    ...  
    columnN_name datatype Size constraints  
);
```

Describe Table: Syntax

```
DESCRIBE table_name;
```

CREATE TABLE: Example

```
CREATE TABLE Student (  
    ROLL_NO INT PRIMARY KEY,  
    NAME VARCHAR(50),  
    ADDRESS VARCHAR(100),  
    PHONE VARCHAR(15),  
    AGE INT  
);
```

INSERT INTO Statement: Syntax

There are two primary syntaxes of **INSERT INTO** statements depending on the requirements. The two syntaxes are:

Syntax 1. Only Values

```
INSERT INTO table_name  
VALUES (value1, value2, value);
```

Syntax 2. Column Names And Values Both

```
INSERT INTO table_name (column1, column2, column3)  
VALUES ( value1, value2, value);
```

INSERT INTO Multiple Rows: Syntax

```
INSERT INTO table_name(Column1,Column2,Column3,.....)  
VALUES  
    (Value1, Value2,Value3,.....),  
    (Value1, Value2,Value3,.....),  
    (Value1, Value2,Value3,.....),
```

.....) ;

INSERT INTO Multiple Rows: Example

```
INSERT INTO Student (ROLL_NO, NAME, ADDRESS, PHONE, AGE) VALUES  
(1, 'Ram', 'Delhi', 'XXXXXXXXXX', 18),  
(2, 'Ramesh', 'Gurgaon', 'XXXXXXXXXX', 18),  
(3, 'Sujit', 'Rohtak', 'XXXXXXXXXX', 20),  
(4, 'Suresh', 'Rohtak', 'XXXXXXXXXX', 18);
```

Created Table:

ROLL_NO	NAME	ADDRESS	PHONE	AGE
1	Ram	Delhi	XXXXXXXXXXXXXX	18
2	RAMESH	GURGAON	XXXXXXXXXXXXXX	18
3	SUJIT	ROHTAK	XXXXXXXXXXXXXX	20
4	SURESH	ROHTAK	XXXXXXXXXXXXXX	18

Example 1: Inserting Only New Values Using INSERT INTO Example

```
INSERT INTO Student  
VALUES ('5','HARSH','WEST BENGAL', 'XXXXXXXXXX','19');
```

Output:

ROLL_NO	NAME	ADDRESS	PHONE	Age
1	Ram	Delhi	XXXXXXXXXXXXXX	18
2	RAMESH	GURGAON	XXXXXXXXXXXXXX	18
3	SUJIT	ROHTAK	XXXXXXXXXXXXXX	20
4	SURESH	Delhi	XXXXXXXXXXXXXX	18

ROLL_NO	NAME	ADDRESS	PHONE	Age
5	HARSH	WEST BENGAL	XXXXXXXXXXXX	19

Example 2: Insert Values to Specified Columns Using INSERT INTO

```
INSERT INTO Student (ROLL_NO, NAME, Age)
VALUES ('5','PRATIK','19');
```

Output:

ROLL_NO	NAME	ADDRESS	PHONE	Age
1	Ram	Delhi	XXXXXXXXXXXX	18
2	RAMESH	GURGAON	XXXXXXXXXXXX	18
3	SUJIT	ROHTAK	XXXXXXXXXXXX	20
4	SURESH	Delhi	XXXXXXXXXXXX	18
5	PRATIK	null	null	19

INSERT INTO SELECT: Syntax

There are two syntaxes for using INSERT INTO SELECT statement, depending on it's use.

Syntax1: Copy All Columns and Insert

```
INSERT INTO first_table
SELECT *
FROM second_table;
```

Syntax2: Copy Specific Columns and Insert

```
INSERT INTO first_table(names_of_columns1)
SELECT names_of_columns2
FROM second_table;
```

Syntax3: Copy Specific Rows and Insert

```
INSERT INTO table1  
SELECT * FROM table2  
WHERE condition;
```

Create Table: Example

```
CREATE TABLE LateralStudent (  
  
    ROLL_NO INT PRIMARY KEY,  
  
    NAME VARCHAR(50),  
  
    ADDRESS VARCHAR(100),  
  
    PHONE VARCHAR(15),  
  
    AGE INT  
  
);
```

Insert into: Example

```
INSERT INTO LateralStudent (ROLL_NO, NAME, ADDRESS, PHONE, AGE) VALUES  
  
(7, 'Souvik', 'Hydrabad', 'XXXXXXXXXXXX', 18),  
  
(8, 'Niraj', 'Noida', 'XXXXXXXXXXXX', 19),  
  
(9, 'Somesh', 'Rohtak', 'XXXXXXXXXXXX', 20);
```

Created Table

ROLL_NO	NAME	ADDRESS	PHONE	Age
7	SOUVIK	HYDERABAD	XXXXXXXXXXXX	18
8	NIRAJ	NOIDA	XXXXXXXXXXXX	19
9	SOMESH	ROHTAK	XXXXXXXXXXXX	20

Example 1: Inserting all rows and columns using INSERT INTO

```
INSERT INTO Student  
SELECT * FROM LateralStudent;
```

Output:

ROLL_NO	NAME	ADDRESS	PHONE	Age
1	Ram	Delhi	XXXXXXXXXX	18
2	RAMESH	GURGAON	XXXXXXXXXX	18
3	SUJIT	ROHTAK	XXXXXXXXXX	20
4	SURESH	Delhi	XXXXXXXXXX	18
7	SOUVIK	DUMDUM	XXXXXXXXXX	18
8	NIRAJ	NOIDA	XXXXXXXXXX	19
9	SOMESH	ROHTAK	XXXXXXXXXX	20

Example 2: Inserting specific columns using INSERT INTO SELECT

```
INSERT INTO Student(ROLL_NO,NAME,Age)  
SELECT ROLL_NO, NAME, Age FROM LateralStudent;
```

Output:

ROLL_NO	NAME	ADDRESS	PHONE	Age
1	Ram	Delhi	XXXXXXXXXX	18
2	RAMESH	GURGAON	XXXXXXXXXX	18
3	SUJIT	ROHTAK	XXXXXXXXXX	20
4	SURESH	Delhi	XXXXXXXXXX	18
7	SOUVIK	null	null	18
8	NIRAJ	null	null	19
9	SOMESH	null	null	20

Example 3: Insert specific rows using INSERT INTO SELECT

```
INSERT INTO Student  
SELECT * FROM LateralStudent WHERE Age = 18;
```

Output:

ROLL_NO	NAME	ADDRESS	PHONE	Age
1	Ram	Delhi	XXXXXXXXXX	18
2	RAMESH	GURGAON	XXXXXXXXXX	18

ROLL_NO	NAME	ADDRESS	PHONE	Age
3	SUJIT	ROHTAK	XXXXXXXXXX	20
4	SURESH	Delhi	XXXXXXXXXX	18
7	SOUVIK	DUMDUM	XXXXXXXXXX	18