



SQL
(Structured Query Language)
Part-I

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- **SQL** (*Structured Query Language*) is used to perform operations on the records stored in database such as updating records, deleting records, creating and modifying tables, views etc.
- **SQL** is just a query language, it is not a database. To perform SQL queries, you need to install any database for example Oracle, MySQL, MongoDB, PostGre SQL, SQL Server, DB2 etc.

Creating a table



```
CREATE TABLE CUSTOMER  
(  
  C_ID NUMBER NOT NULL PRIMARY KEY,  
  C_NAME VARCHAR2(20),  
  C_AGE NUMBER,  
  PLACE VARCHAR2(20)  
);
```

Creating copy of the table



```
CREATE TABLE NEW_TABLE  
AS  
SELECT * FROM CUSTOMER;
```

Insert single row into the table



```
INSERT INTO CUSTOMER  
(C_ID, C_NAME, C_AGE, PLACE)  
VALUES  
(21696, 'SWETA', 21, 'PATIALA');
```

Inserting multiple rows



```
INSERT ALL
```

```
INTO customer (c_id, c_name,c_age, place) VALUES  
(21698,'e',23,'jalandhar')
```

```
INTO customer (c_id, c_name,c_age, place) VALUES  
(21697,'mohita',24,'phagwara')
```

```
SELECT * FROM dual;
```

```
//dual is a dummy table in oracle.(one row, one column)
```

To alter the table



Eg. If you want to add a new column with name m_status to the existing table.

```
ALTER table customer  
ADD m_status varchar2(50);
```

To select all the fields



```
SELECT * FROM customer;
```


To select specific fields



Eg.

```
SELECT c_id, c_name  
from customer  
where c_age < 22;
```

To delete the table



```
DROP TABLE table_name;
```

Eg.

```
DROP TABLE customer;
```

To delete a specific field



- The DELETE statement is used to delete rows from a table. If you want to remove a specific row from a table you should use WHERE condition.

Eg.

```
DELETE FROM
```

```
customers
```

```
WHERE
```

```
C_age=21;
```

TRUNCATE STATEMENT



The TRUNCATE statement: it is used to delete all the rows from the table and free the containing space.

Eg. TRUNCATE TABLE table_name;

Difference b/w DROP and TRUNCATE statements



- When you use the drop statement it deletes the table's row together with the table's definition so all the relationships of that table with other tables will no longer be valid.

When you drop a table:

- Table structure will be dropped
- Relationship will be dropped
- Integrity constraints will be dropped
- Access privileges will also be dropped

On the other hand when we TRUNCATE a table, the table structure remains the same, so you will not face any of the above problems.

To update the rows of the table



If you want to update any particular column data of the table. Like in the following example, change the place to phagwara for c_id =21696.

Eg.

```
UPDATE customer  
SET place='phagwara'  
WHERE c_id=21696;
```