**Performing Operation on Table Data**

♣ Creating table, creating a table from a table,

♣ Populating tables with data, inserting data into a table from another table

♣ Retrieving data from tables

♣ Sorting data in a table

♣ Deleting data from table

♣ Updating data in tables

♣ Altering table- Adding new columns, dropping columns, Modifying existing columns, Rename

existing column, Renaming table, Changing a table type

♣ Displaying a table structure

♣ Finding out the tables created by user

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* **Create Table**

CREATE TABLE statement is used for define the structure of a table. A table is used to organize data in the form of rows and columns. It is used for storing and displaying records. In a table structure you should define various fields, their data types and constraints. Each column uniquely defined in the table. Each column has a minimum of three attributes, a name, data type and size (i.e. column width). Each column definition is separated from other column definition by a comma (,).

Rules for Creating Tables

1. A name of the table can have maximum up to 30 characters
2. Alphabets from A-Z, a-z and numbers from 0-9 are allowed
3. Name should start with an alphabet
4. A special characters is allowed (Special characters like \_, $, # etc.).
5. SQL word is reserved and you cannot use. For example: create, select, and so on.

MySQL allows us to create a table into the database mainly in **two ways**:

1. MySQL Command Line Client
2. MySQL Workbench

[MySQL](https://www.javatpoint.com/mysql-tutorial) allows us to create a table into the database by using the [**CREATE TABLE**](https://www.javatpoint.com/mysql-create-table) command.

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| --- | --- |
| **Syntax:** create table [if not exists] table\_name(      column\_definition1,      column\_definition2,      ........,    table\_constraints ); | **Example:**  create table emp( id int ,       name varchar(30),      occupation varchar(25),      age int); |

* **To see the newly created table:** show tables;
* **See the table structure:** describe emp;
* **Insert Statement**

INSERT statement is used to store or add data in MySQL table within the database. We can perform insertion of records in two ways:

1. Insert record in a single row
2. Insert record in multiple rows
3. **Single Row:**

**Syntax:** **insert into** table\_name (field1, field2,…..field n )  **values** ( value1, value2,…..value n );

**Example:** **insert into** emp (id, name, occupation, age) **values** (101, 'Ravi', 'engineer', 32);

1. **Multiple Rows:**

**Syntax:** **insert into** table\_name **values** (val1, val2,...val n ), (val1, val2,...val n).....(val1, val2,...val n);

**Ex:insert into** emp **values** (102, 'Joseph', 'Developer', 30), (103, 'Mahi', 'Leader', 28), (104,'Sam','Scientist', 45);

1. If we want to store records without giving all fields, we use the following partial field statements

**insert into** emp (name, occupation) **values** ('satish', 'scientist'), ('binod', 'actor');

* **Insert into Select Statement**

We want to insert data of one table to other table in the same or different database. It is not easy to enter these data using the insert query manually. We use of **insert into select** query. It allows us to fill tables quickly. **Query copies data from one table and inserts them in the other table**.

* The data types in source and target tables must be the same.
* The existing records in the target table should be unaffected.
* Adding single or multiple from one table into another table

**Syntax: insert** **into** table\_name2 **select** \* **from** table\_name1;   **or insert into** table2 **table** table1;

**insert** **into** **person** **select** \* **from** **emp;**   **or**   **insert into person** **table** **emp;**

* Copy only specific records from one table into another table using ‘where clause’

**Syntax: insert** **into** table\_name2 **select** \* **from** table\_name1  **where** condition;

**insert** **into** **person** **select** \* **from** **emp where occupation='Developer';**

* **Update Statement**

UPDATE query is a DML statement used to modify the data of the MySQL table within the database.