

Basic SQL Commands

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Data types

- CHARACTER(n) or CHAR(n)
- BOOLEAN
- INT or INTEGER
- DECIMAL(p,s)
- FLOAT(p)
- DATE
- VARCHAR(n)

DATABASE related commands

- SHOW DATABASES;
- CREATE DATABASE db_name;
- USE db_name;
- DROP DATABASE db_name;

Basic TABLE related commands

- SHOW tables;
- CREATE TABLE tb_name(
 - column1 datatype1,
 - column2 datatype2,
 - ...
 - columnn datatype_n,
 - PRIMARY KEY (one or more columns));
- DESC tb_name; → describes the table

- INSERT INTO tb_name VALUES (v1,v2,...vn);
- INSERT INTO tb_name(c1,c2,...,cn1) VALUES (v1,v2,...vn1);

Note: string in single quotes

- INSERT INTO tb_name(c1,c2,...,cn1) VALUES
(v1,v2,...vn1),
(v1,v2,...vn1),
...
(v1,v2,...vn1);

Showing result of queries

- `SELECT * from tb_name;` → *shows all rows and columns of a table*
- `SELECT c1, c2,...,cn from tb_name;` → *shows all rows but with specific columns of a table*
- `SELECT * from tb_name where condition;` → *shows specifically selected rows but with all columns;*
- `SELECT c1, c2,...,cn from tb_name where condition;` → *shows specifically selected rows and columns;*

EmpID	ENAME
1	Sanjay
2	Radhika

Employee Table

EmpID	DeptName
1	CSE
2	ECE

Department Table

SELECT EmpID, ENAME, DeptName from Employee, Department; → **will it work?**

ALIAS

- `SELECT a.c1, b.c2 from tb_name1 AS a, tb_name2 AS b where conditions;`

- `SELECT DISTINCT c1, c2,..., cn from tb_name;` → *removes repeating rows from the output*

EmpID	Ename
1	Sanjay
2	Radhika

Employee Table

EmpID	DeptName
1	CSE
2	ECE
3	HSS

Department Table

```
SELECT Employee.EmpID, EName, DeptName from Employee, Department;
```

JOIN

- `SELECT a.c1, b.c2 from tb_name1 AS a, tb_name2 AS b a.cx = b.cx;`

Counting rows in the output

- `SELECT COUNT(*) AS NROWS from tb_name;`
- `SELECT COUNT(EmpName) from EMPLOYEE;`

Updating data

- UPDATE tb_name SET
 c1 = v1,
 c2 = v2
 where conditions;

Note: Multiple conditions using AND, OR, NOT, IS NULL, IS NOT NULL are also possible.

Deletion

- DELETE from tb_name where conditions;
- DROP TABLE tb_name;

Modifying definition of a table

- ALTER TABLE tb_name ADD col_name data_type; → *Add new column*
- ALTER TABLE tb_name DROP col_name; → *Remove a column*
- ALTER TABLE tb_name CHANGE col1 col2 VARCHAR(20); → *change data type of a column*

Renaming

- `RENAME TABLE table_name1 TO table_name2;`

Miscellaneous

- Compare values to similar values using wildcard –
- % : 0,1 or multiple characters
- - : Only 1 character

Example : where ename LIKE 'San%'

THANK YOU