

# 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**