



# WORKING ON SQL

Data Analytics

Speaker - Mr. Eshan Tiwari



DML, DCL, DDL commands



01:51

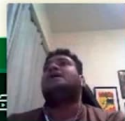
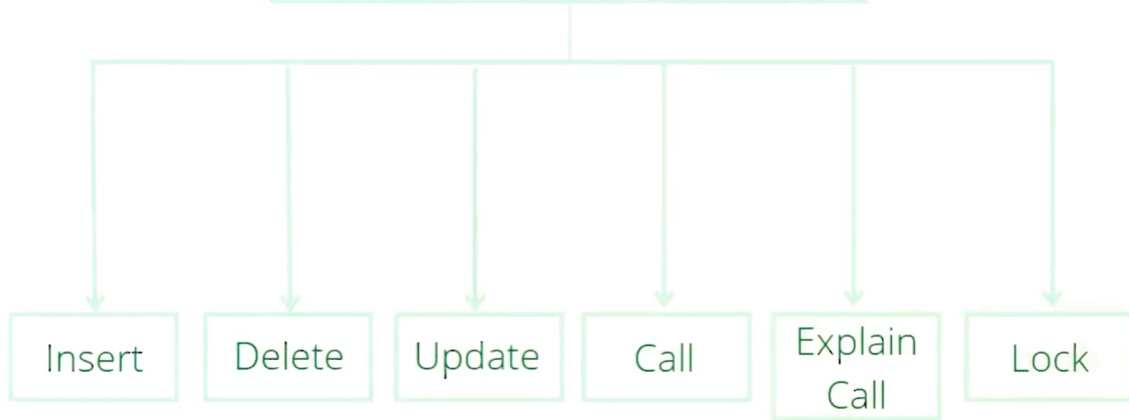


vimeo



# DML Commands

Data Manipulation Language Commands



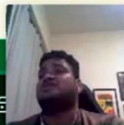
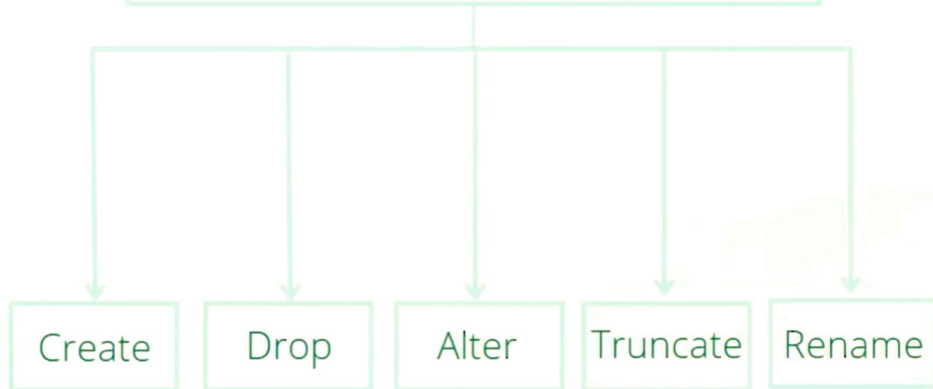
# DCL Commands

Data Control Language Commands

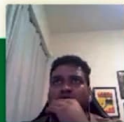


# DDL Commands

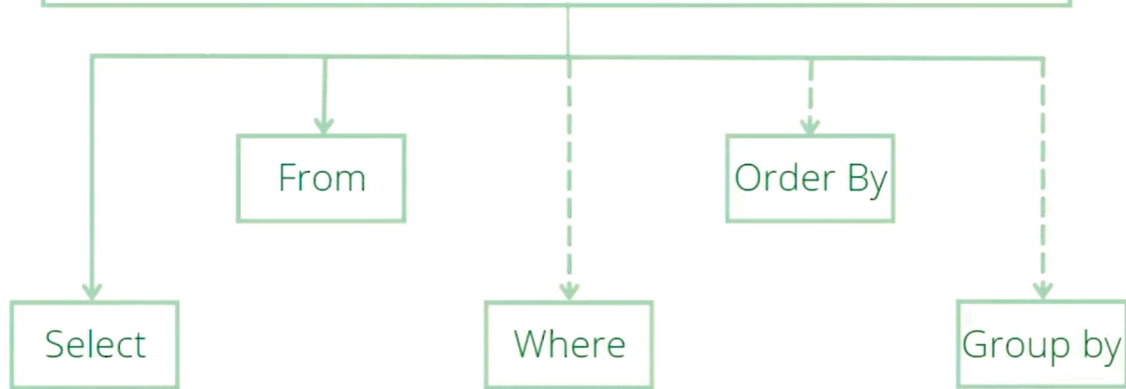
Data Definition Language Commands



# Structure of SQL query



# Structure of SQL query



# Selecting a single column

Table *Store\_Information*

Store_Name	Sales	Txn_Date
Los Angeles	1500	Jan-05-1999
San Diego	250	Jan-07-1999
Los Angeles	300	Jan-08-1999
Boston	700	Jan-08-1999

To select a single column, we specify the column name between **SELECT** and **FROM** as follows:

```
SELECT Store_Name FROM Store_Information;
```

Result:

```
Store_Name  
Los Angeles  
San Diego  
Los Angeles  
Boston
```







## Selecting multiple column

We can use the **SELECT** statement to retrieve more than one column. To select `Store_Name` and `Sales` columns from `Store_Information`, we use the following SQL:

```
SELECT Store_Name, Sales FROM Store_Information;
```

Result:

<u>Store_Name</u>	<u>Sales</u>
Los Angeles	1500
San Diego	250
Los Angeles	300
Boston	70





# Selecting all column

There are two ways to select all columns from a table. The first is to list the column name of each column. The second, and the easier, way is to use the symbol \*. For example, to select all columns from Store\_Information, we issue the following SQL:

```
SELECT * FROM Store_Information;
```

Result:

<u>Store Name</u>	<u>Sales</u>	<u>Txn Date</u>
Los Angeles	1500	Jan-05-1999
San Diego	250	Jan-07-1999
Los Angeles	300	Jan-08-1999
Boston	700	Jan-08-1999



# Finding Unique Values



# Not using Distinct

```
SELECT city  
FROM sales.customers  
ORDER BY city;
```

city  
Albany  
Albany  
Albany  
Amarillo  
Amarillo  
Amarillo

sales.customers
* customer_id
first_name
last_name
phone
email
street
city
state
zip_code

# Using Distinct

```
SELECT DISTINCT city  
FROM sales.customers  
ORDER BY city;
```

city  
Albany  
Amarillo  
Amityville  
Amsterdam  
Anaheim  
Apple Valley



## Filtering the data



# Where condition

**Table Customers**

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Amritabad	2000.00
2	Khilan	25	Dehra	1500.00
3	kaushik	23	Kota	2000.00
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	4500.00
7	Muffy	24	Indore	10000.00

## SQL Query

```
SELECT ID, NAME, SALARY  
FROM Customers  
WHERE SALARY > 2000;
```

**Output Table**

ID	NAME	SALARY
4	Chaitali	6500.00
5	Hardik	8500.00
6	Komal	4500.00
7	Muffy	10000.00



# And statement

## SQL Query

```
SELECT ID, NAME, SALARY  
FROM Customers  
WHERE SALARY > 2000 AND AGE < 25;
```

## Table Customers

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
2	Khilan	25	Delhi	1500.00
3	kaushik	23	Kota	2000.00
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	4500.00
7	Muffy	24	Indore	10000.00

## Output Table

ID	NAME	SALARY
6	Komal	4500.00
7	Muffy	10000.00



# OR statement

## SQL Query

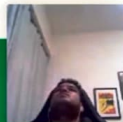
```
SELECT ID, NAME, SALARY  
FROM Customers  
WHERE SALARY > 2000 OR AGE < 25;
```

## Table Customers

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
2	Khilan	25	Delhi	1500.00
3	kaushik	23	Kota	2000.00
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	4500.00
7	Muffy	24	Indore	10000.00

## Output Table

ID	NAME	SALARY
3	kaushik	2000.00
4	Chaitali	6500.00
5	Hardik	8500.00
6	Komal	4500.00
7	Muffy	10000.00





# Wildcards

## SQL Query

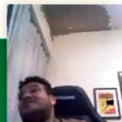
```
SELECT * FROM Customers  
WHERE SALARY LIKE '200%';
```

## Table Customers

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
2	Khilan	25	Delhi	1500.00
3	kaushik	23	Kota	2000.00
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	4500.00
7	Muffy	24	Indore	10000.00

## Output Table

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
3	kaushik	23	Kota	2000.00



# Null Values

## SQL Query

```
SELECT ID, NAME, AGE, ADDRESS, SALARY  
FROM Customers  
WHERE SALARY IS NULL;
```

## Table Customers

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
2	Khilan	25	Delhi	1500.00
3	kaushik	23	Kota	2000.00
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	
7	Muffy	24	Indore	

## Output Table

ID	NAME	AGE	ADDRESS	SALARY
6	Komal	22	MP	
7	Muffy	24	Indore	



# In statement

## SQL Query

```
SELECT * FROM employee  
WHERE daily_typing_pages IN ( 250, 220, 170 );
```

**Table employee**

id	name	work_date	daily_typing_pages
1	John	2007-01-24	250
2	Ram	2007-05-27	220
3	Jack	2007-05-06	170
3	Jack	2007-04-06	100
4	Jill	2007-04-06	220
5	Zara	2007-06-06	300
5	Zara	2007-02-06	350

**Output Table**

id	name	work_date	daily_typing_pages
1	John	2007-01-24	250
2	Ram	2007-05-27	220
3	Jack	2007-05-06	170
4	Jill	2007-04-06	220

