

KEY TAKEAWAYS

Chapter TITLE | SQL Basics: Data Retrieval - Single Table

LECTURE TITLE | Retrieve Data Using Text Query (SELECT, WHERE, DISTINCT, LIKE)

- 1 SELECT, FROM and WHERE are the basic SQL functions
- 2 '*' means all columns. Using '*' after the SELECT query will select all columns of a database
- 3 With the help of the USE function, you can indicate the query to use a particular database, especially when there are multiple databases
- 4 The COUNT function will provide the numerical count of rows
- 5 The DISTINCT function will help you see the unique values present in a given column
- 6 '%' is a wild card search
- 7 Use LIKE function and '%' to filter the rows based on a text value

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**LECTURE
TITLE** | **Retrieve Data Using Numeric Query
(BETWEEN, IN, ORDER BY, LIMIT, OFFSET)**

- 1 $<, \leq, >, \geq$ are the basic numerical operators used in SQL
- 2 You can also use AND, OR, BETWEEN, IN to perform numerical queries
- 3 You can sort the table by using 'ORDER BY' clause
- 4 By default, it sorts the data in ascending order, but you can specify the sort order
- 5 LIMIT clause can be used to fetch the top 'N' or bottom 'N' amount of records. 'N' can be any numerical value
- 6 OFFSET clause will help you to skip a certain number of rows in your final result

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**LECTURE
TITLE** | **Summary Analytics (MIN, MAX, AVG,
GROUP BY)**

- 1 Knowing Summary Analytics in SQL will enable you to perform AD HOC Analysis, which is an important business use case
- 2 MAX, MIN and AVG are the common summary analytics functions of SQL
- 3 You can define a custom column header name by using 'AS' clause
- 4 GROUP BY clause will help you to create a summary of metrics such as average, count, etc., for selected column(s)

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**LECTURE
TITLE** | **HAVING Clause**

- 1** The order of query execution in SQL is: FROM → WHERE → GROUP BY → HAVING → ORDER BY
- 2** GROUP BY and HAVING clauses are often used together
- 3** The column you use in HAVING should be present in the SELECT clause, whereas WHERE can use columns that are not present in the SELECT clause as well



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**LECTURE
TITLE** | **Calculated Columns (IF, CASE, YEAR,
CURYEAR)**

- 1 As a data analyst, Revenue and Profit are the most common metrics that you will calculate in any industry
- 2 IF function is often used in SQL queries
- 3 When you have more than two conditions, you need to use CASE and END functions instead of the IF function
- 4 You can derive new columns from the existing columns in a table
- 5 Currency conversion and unit conversion are important business use cases of SQL

