

DAY 1

Takeaways

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

Takeaways

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

Takeaways

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

Takeaways

- The order of query execution in – **SQL** is **FROM** → **WHERE** → **GROUP BY** → **HAVING** → **ORDER BY**
- **GROUP BY** and **HAVING** clauses are often used together
- The Column you use in **HAVING** should be present in **SELECT** clause whereas **WHERE** can use columns that is not present in select clause as well

Takeaways

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