

# SQL

## SELECTING MORE

Alish Bista - 08/25/2025

**COUNT**

# COUNT()

We'll Be Counting Stars.... And More

- Counts the number of records
- COUNT(\*) shows total number of rows in a field
- COUNT(field\_name) shows number of records with a value in a field

```
SELECT COUNT(*) AS total_records  
FROM orders
```

**DISTINCT**

# DISTINCT

## The Chosen Ones

- It removes duplicates to return **unique** values

```
SELECT o_orderpriority  
FROM orders;
```

```
SELECT DISTINCT o_orderpriority  
FROM orders;
```

**FILTER**

# FILTER

I LIKE IT! MINUS!!!

- Filters records based on conditions
- **Comparison Operators:** <, >, =, <=, >=, <>
- **Criteria Combination:** AND, OR, BETWEEN
- **Text Pattern:** LIKE, NOT LIKE, IN
- **Wildcards:** \_ , %

NULL



# NULL

## Much Ado About Nothing

- NULL values are missing values
- Common in real world data
- Keywords in SQL for handling them:
  - IS NULL
  - IS NOT NULL

# AGGREGATES

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All Together Now

- **Numerical Fields**
  - AVG()
  - SUM()
- **Various Data Types**
  - MIN()
  - MAX()
  - COUNT()

**ROUND**

# ROUND

## Approximately Speaking

- **Syntax:** ROUND(number\_to\_round, decimal\_places)
- Rounding to whole number:  
ROUND(number\_to\_round)  
ROUND(number\_to\_round, 0)
- Rounding with negative parameter:  
ROUND(number\_to\_round, -nearest\_multiple\_of\_ten)

# **SORTING**

# SORTING

## First Things First

- Adds order to the result set
- Keywords that help to provide order:
  - ORDER BY
  - ASC, DESC

# GROUPING



# GROUPING

## Birds of a Feather

- Generates aggregates for groups coming from one field or combination of many fields
- Keyword used: **GROUP BY**
- Declaration is required whenever using aggregate functions in combination with other fields

**HAVING**

# HAVING

## Double Check

- Filtering for grouped records
- Where is WHERE? WHERE filters in the context of individual records
- Uses Comparison operators similar to WHERE