

Welcome to **INTERNSHIP STUDIO**

Module 03 | Lesson 05

Analyzing Data with SQL

Aggregating Data

Introduction to Aggregating Data

- Aggregating data is a fundamental aspect of SQL that involves summarizing data across one or more columns.
- SQL provides various aggregate functions, such as SUM, COUNT, AVG, MIN, and MAX, to perform calculations on groups of rows.

Aggregate Functions in SQL

- SUM: Calculates the sum of values in a column.
- COUNT: Returns the count of rows in a column.
- AVG: Computes the average of values in a column.
- MIN: Finds the minimum value in a column.
- MAX: Identifies the maximum value in a column.

Using Aggregate Functions

- Aggregate functions are typically used in combination with the GROUP BY clause to perform calculations on subsets of data.
- Syntax:

```
SELECT column1, aggregate_function(column2)
FROM table_name
GROUP BY column1;
```

Example: Summing Values

- Example: Calculate the total sales amount for each product category.
- Syntax:

```
SELECT Category, SUM(SalesAmount)
FROM table_name
GROUP BY Category;
```

Example: Counting Rows

- Example: Count the number of orders for each customer.
- Syntax:

```
SELECT CustomerID, COUNT(OrderID)
FROM table_name
GROUP BY CustomerID;
```

Example: Finding Averages

- Example: Determine the average salary for each department.
- Syntax:

```
SELECT Department, AVG(Salary)
FROM table_name
GROUP BY Department;
```

Example: Identifying Minimum and Maximum Values

- Example: Find the minimum and maximum prices for each product.
- Syntax:

```
SELECT ProductID, MIN(Price), MAX(Price)
FROM table_name
GROUP BY ProductID;
```


SUMMARY

You got

this

- Aggregating data using SQL's aggregate functions allows for summarizing, analyzing, and gaining insights from large datasets.
- By combining aggregate functions with the GROUP BY clause, data can be grouped and calculated based on specific criteria.
- Understanding and utilizing aggregate functions empowers effective data analysis and reporting in SQL.

Next

session

Demonstration on Workbench