**Task\_06 :SQL Script**

**Objective:** Analyze monthly revenue and order volume.

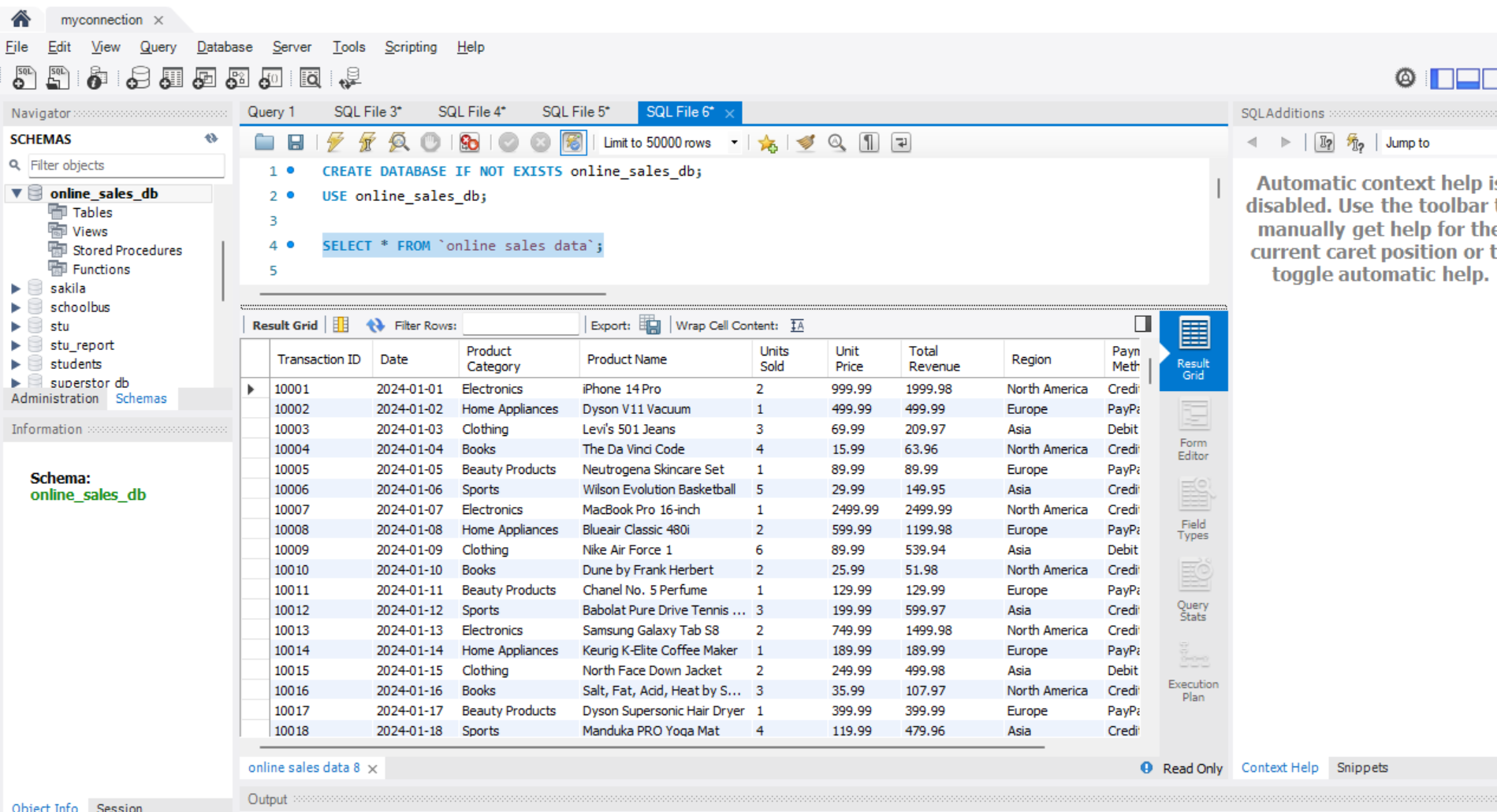
**Tools:** MySQL

# Database Setup

CREATE DATABASE IF NOT EXISTS online\_sales\_db;  
USE online\_sales\_db;

# Data Preview

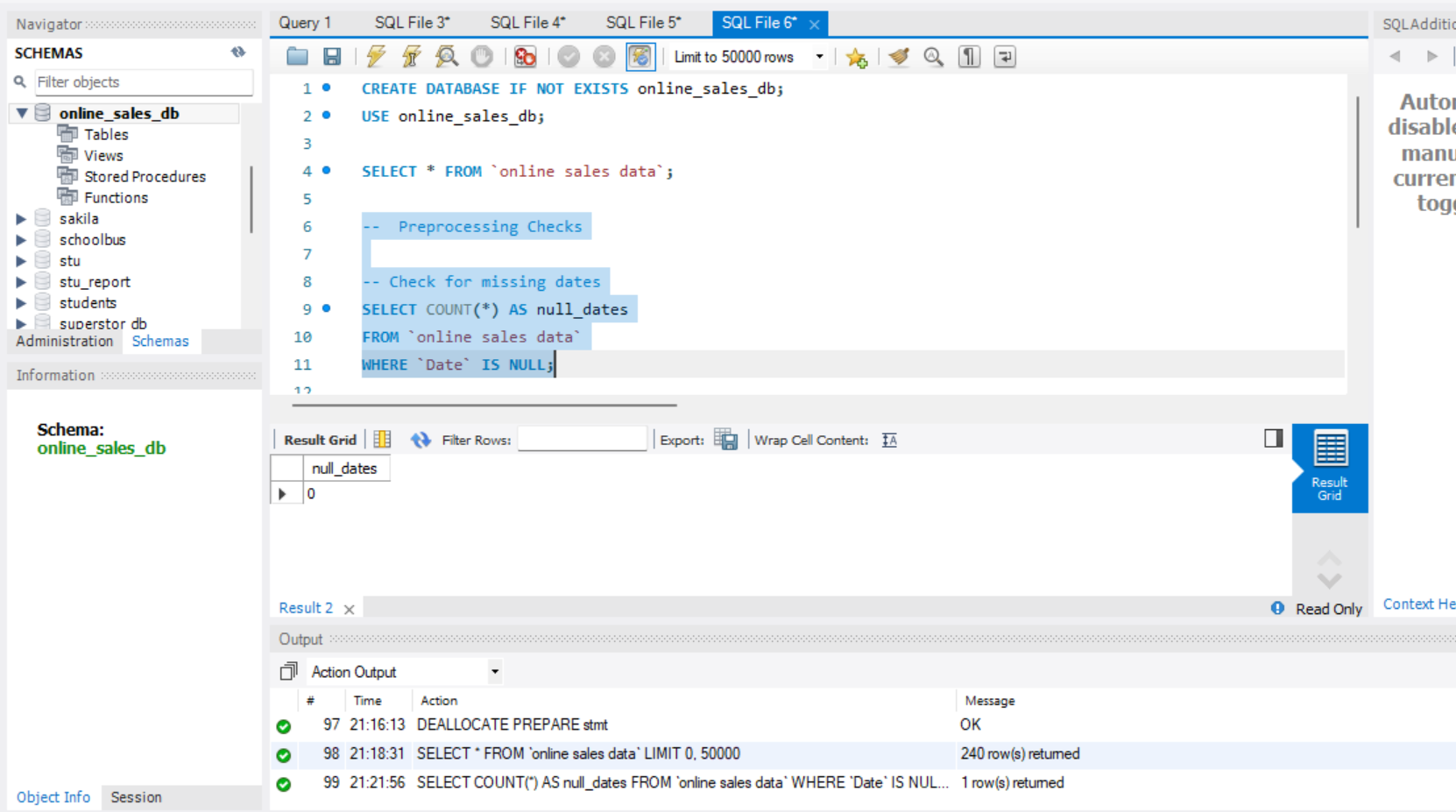
SELECT \* FROM `online sales data`;



# Preprocessing Checks

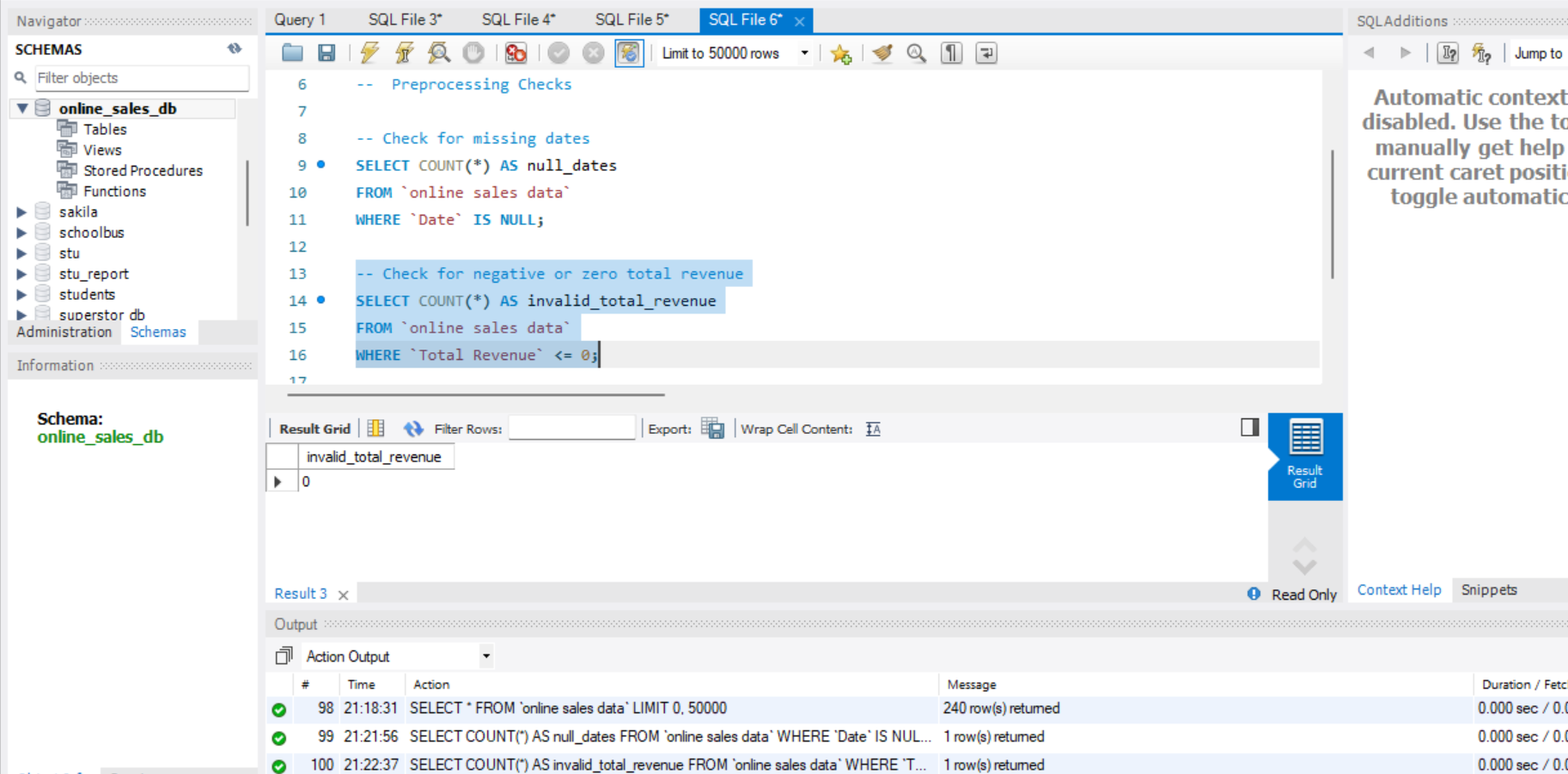
## 1. Check for missing dates

SELECT COUNT(\*) AS null\_dates  
FROM `online sales data`  
WHERE `Date` IS NULL;

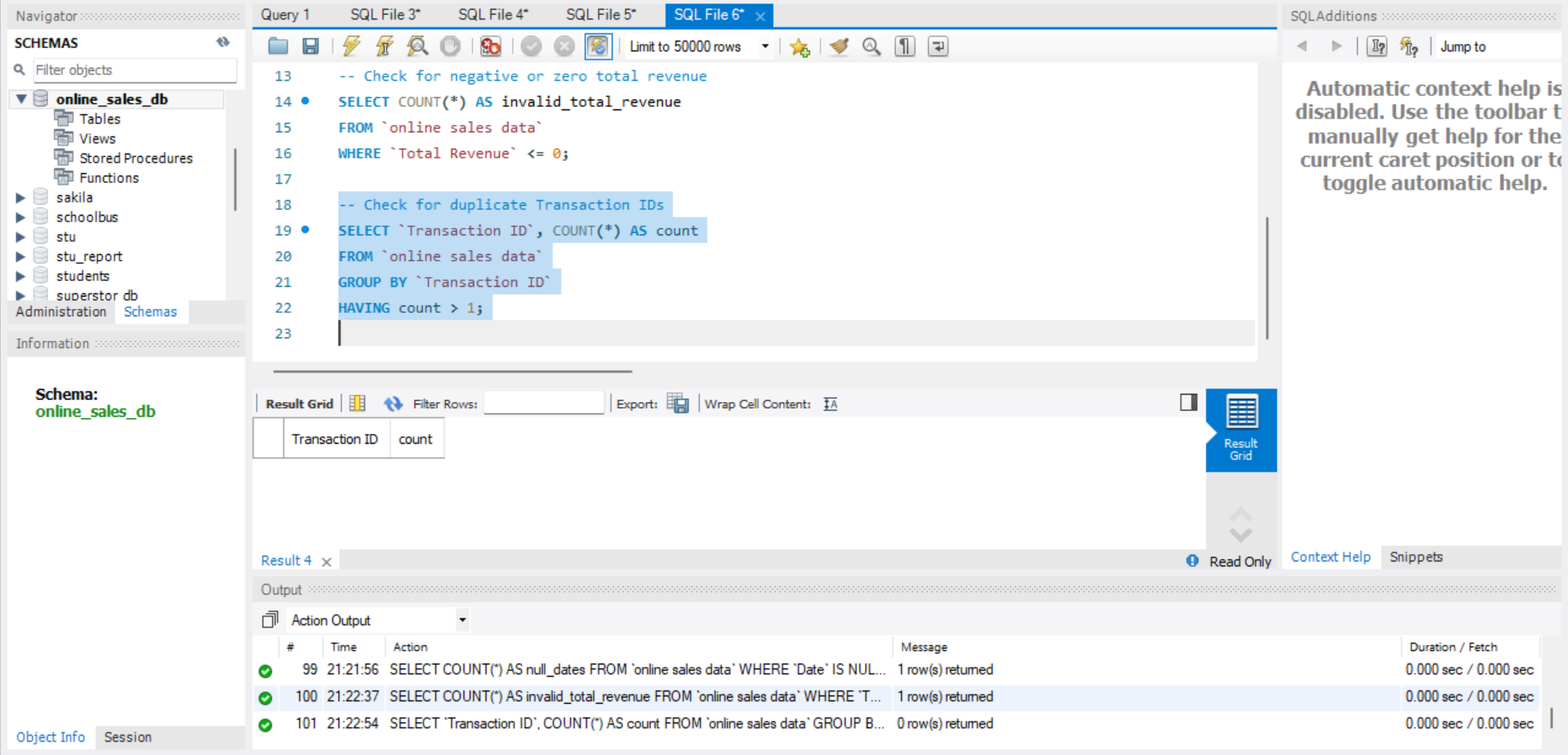


## 2. Check for negative or zero total revenue

SELECT COUNT(\*) AS invalid\_total\_revenue  
FROM `online sales data`  
WHERE `Total Revenue` <= 0;



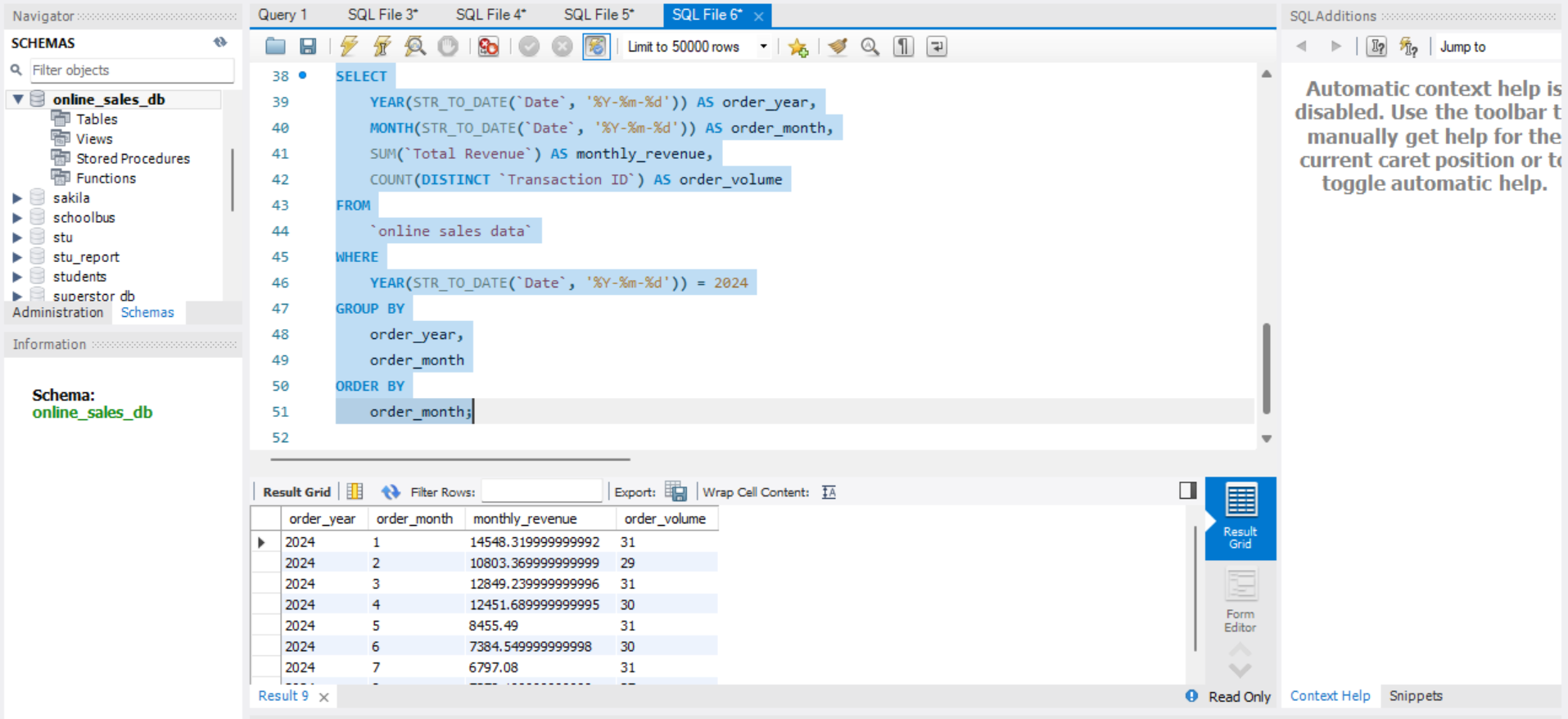
## 3. Check for duplicate Transaction IDs

SELECT `Transaction ID`, COUNT(\*) AS count  
FROM `online sales data`  
GROUP BY `Transaction ID`  
HAVING count > 1;  


# Sales Trend Analysis Using Aggregations

## 1. Monthly revenue and order volume

SELECT  
 YEAR(STR\_TO\_DATE(`Date`, '%Y-%m-%d')) AS order\_year,  
 MONTH(STR\_TO\_DATE(`Date`, '%Y-%m-%d')) AS order\_month,  
 SUM(`Total Revenue`) AS monthly\_revenue,  
 COUNT(DISTINCT `Transaction ID`) AS order\_volume  
FROM  
 `online sales data`  
GROUP BY  
 order\_year,  
 order\_month  
ORDER BY  
 order\_year, order\_month;



## 2. Monthly revenue and order volume for the year 2024

SELECT  
 YEAR(STR\_TO\_DATE(`Date`, '%Y-%m-%d')) AS order\_year,  
 MONTH(STR\_TO\_DATE(`Date`, '%Y-%m-%d')) AS order\_month,  
 SUM(`Total Revenue`) AS monthly\_revenue,  
 COUNT(DISTINCT `Transaction ID`) AS order\_volume  
FROM  
 `online sales data`  
WHERE  
 YEAR(STR\_TO\_DATE(`Date`, '%Y-%m-%d')) = 2024  
GROUP BY  
 order\_year,  
 order\_month  
ORDER BY  
 order\_month;

