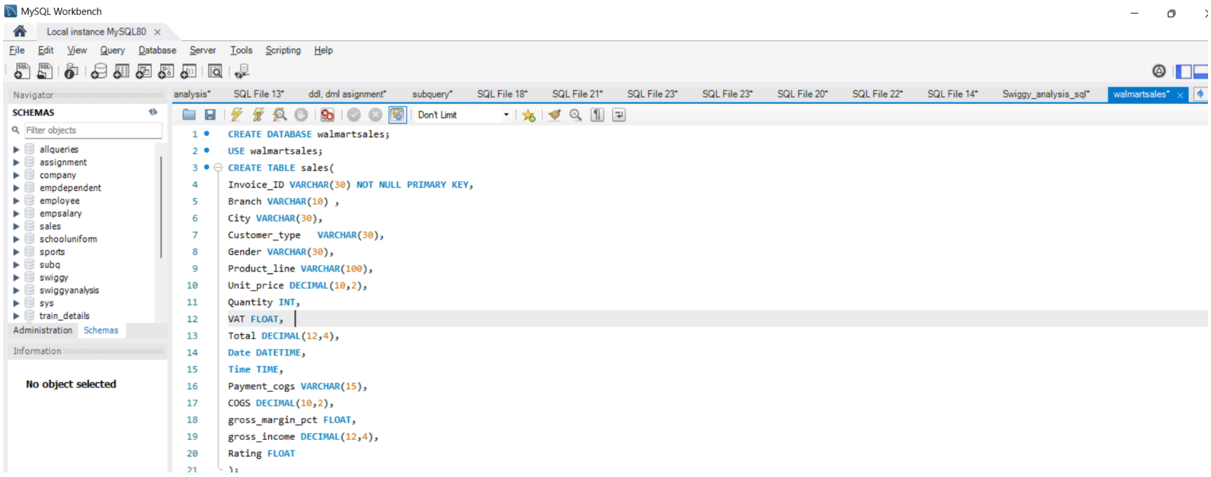
TASK 3: SQL FOR DATA ANALYSIS

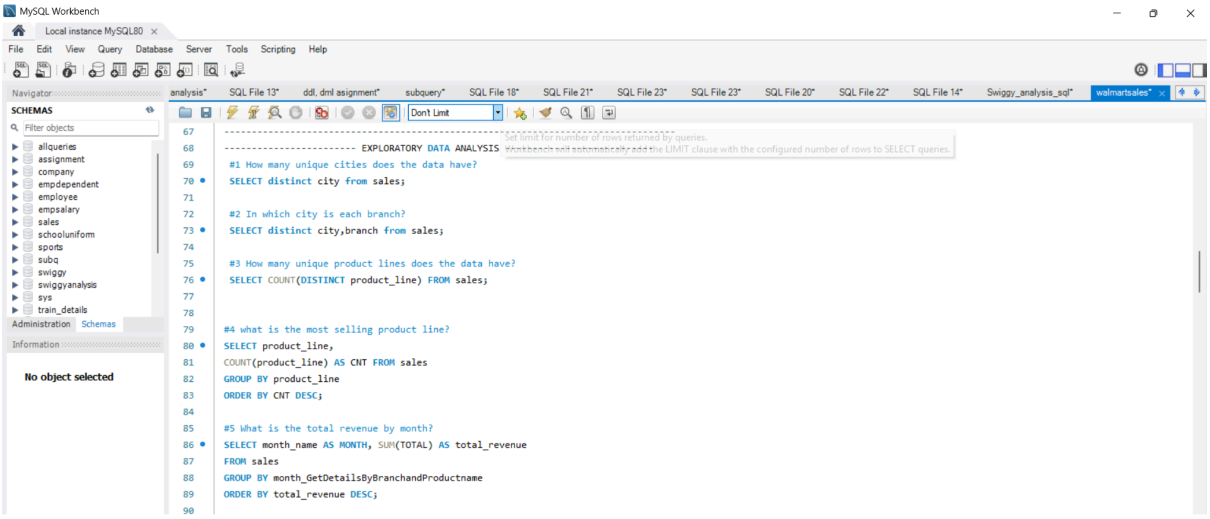
ECOMMERCE SALES ANALYSIS- Walmart sales

- Create database walmartsales
- Create table sales



```sql
CREATE DATABASE walmartsales;
USE walmartsales;
CREATE TABLE sales(
Invoice_ID VARCHAR(30) NOT NULL PRIMARY KEY,
Branch VARCHAR(10) ,
City VARCHAR(30),
Customer_type   VARCHAR(30),
Gender VARCHAR(30),
Product_line VARCHAR(100),
Unit_price DECIMAL(10,2),
Quantity INT,
VAT FLOAT,
Total DECIMAL(12,4),
Date DATETIME,
Time TIME,
Payment_cogs VARCHAR(15),
COGS DECIMAL(10,2),
gross_margin_pct FLOAT,
gross_income DECIMAL(12,4),
Rating FLOAT
);
```

EDA -exploratory data analysis using count, distinct, group by, order by


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
allqueries
assignment
company
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sales
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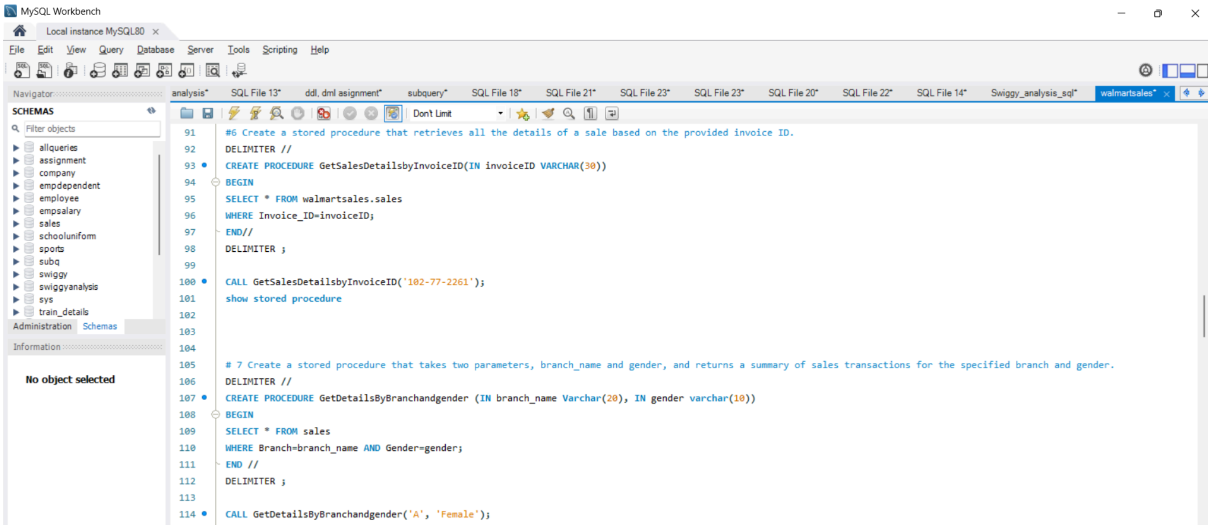
Administration Schemas
Information
No object selected
analysis* SQL File 13* ddl, dml asignment* subquery* SQL File 18* SQL File 21* SQL File 23* SQL File 23* SQL File 20* SQL File 22* SQL File 14* Swiggy_analysis_sql* walmartsales*
Don't Limit
Set limit for number of rows returned by queries.
Workbench will automatically add the LIMIT clause with the configured number of rows to SELECT queries.

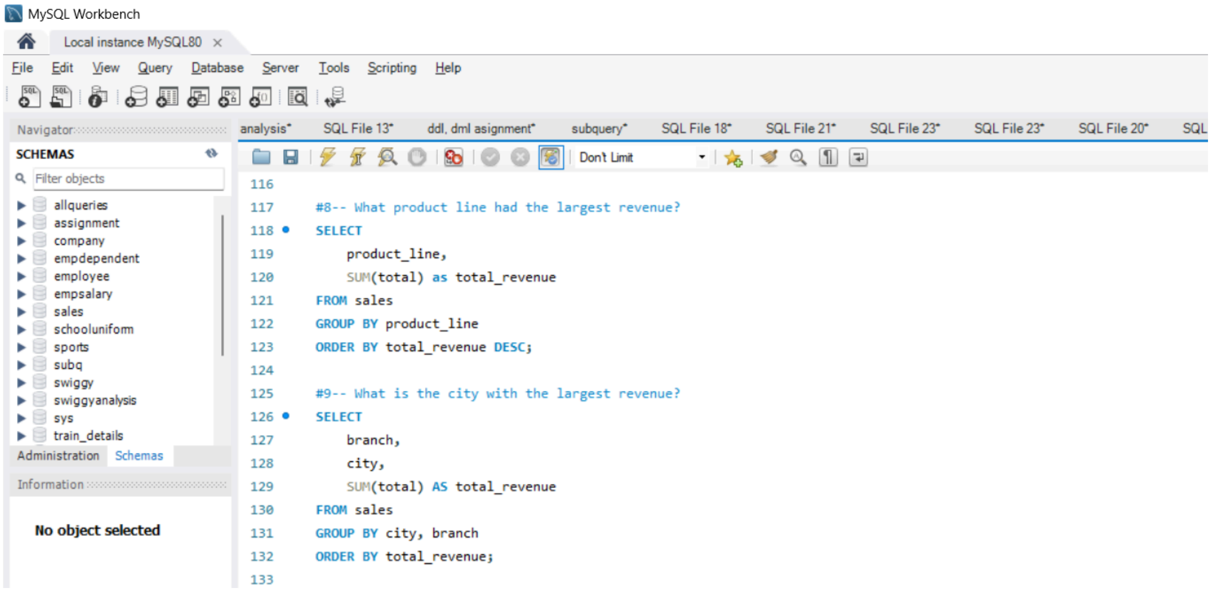
```sql
------------------------------------------------------------------------------------------------------
----------------------- EXPLORATORY DATA ANALYSIS
 #1 How many unique cities does the data have?
 SELECT distinct city from sales;

 #2 In which city is each branch?
 SELECT distinct city,branch from sales;

 #3 How many unique product lines does the data have?
 SELECT COUNT(DISTINCT product_line) FROM sales;


#4 what is the most selling product line?
SELECT product_line,
COUNT(product_line) AS CNT FROM sales
GROUP BY product_line
ORDER BY CNT DESC;

#5 What is the total revenue by month?
SELECT month_name AS MONTH, SUM(TOTAL) AS total_revenue
FROM sales
GROUP BY month_GetDetailsByBranchandProductname
ORDER BY total_revenue DESC;
```

Using Stored Procedure



```sql
#6 Create a stored procedure that retrieves all the details of a sale based on the provided invoice ID.
DELIMITER //
CREATE PROCEDURE GetSalesDetailsbyInvoiceID(IN invoiceID VARCHAR(30))
BEGIN
SELECT * FROM walmartsales.sales
WHERE Invoice_ID=invoiceID;
END//
DELIMITER ;

CALL GetSalesDetailsbyInvoiceID('102-77-2261');
show stored procedure



# 7 Create a stored procedure that takes two parameters, branch_name and gender, and returns a summary of sales transactions for the specified branch and gender.
DELIMITER //
CREATE PROCEDURE GetDetailsByBranchandgender (IN branch_name Varchar(20), IN gender varchar(10))
BEGIN
SELECT * FROM sales
WHERE Branch=branch_name AND Gender=gender;
END //
DELIMITER ;

CALL GetDetailsByBranchandgender('A', 'Female');
```

Using sum



```sql

#8-- What product line had the largest revenue?
SELECT
    product_line,
    SUM(total) as total_revenue
FROM sales
GROUP BY product_line
ORDER BY total_revenue DESC;

#9-- What is the city with the largest revenue?
SELECT
    branch,
    city,
    SUM(total) AS total_revenue
FROM sales
GROUP BY city, branch
ORDER BY total_revenue;

```