

Sales Trend Analysis Using Aggregations

Objective: Analyze monthly revenue and order volume.

Tools: MySQL (Apache Server)

Deliverables: SQL script + results table

Create Database and Table

```
CREATE DATABASE retail_data;
```

```
USE retail_data;
```

```
CREATE TABLE online_retail (
```

```
    InvoiceNo VARCHAR(20),
```

```
    StockCode VARCHAR(20),
```

```
    Description TEXT,
```

```
    Quantity INT,
```

```
    InvoiceDate DATETIME,
```

```
    UnitPrice DECIMAL(10, 2),
```

```
    CustomerID VARCHAR(20),
```

```
    Country VARCHAR(100)
```

```
);
```

Load Dataset in database

```
LOAD DATA INFILE 'C:/RetailData/OnlineRetail.csv'
```

```
INTO TABLE online_retail
```

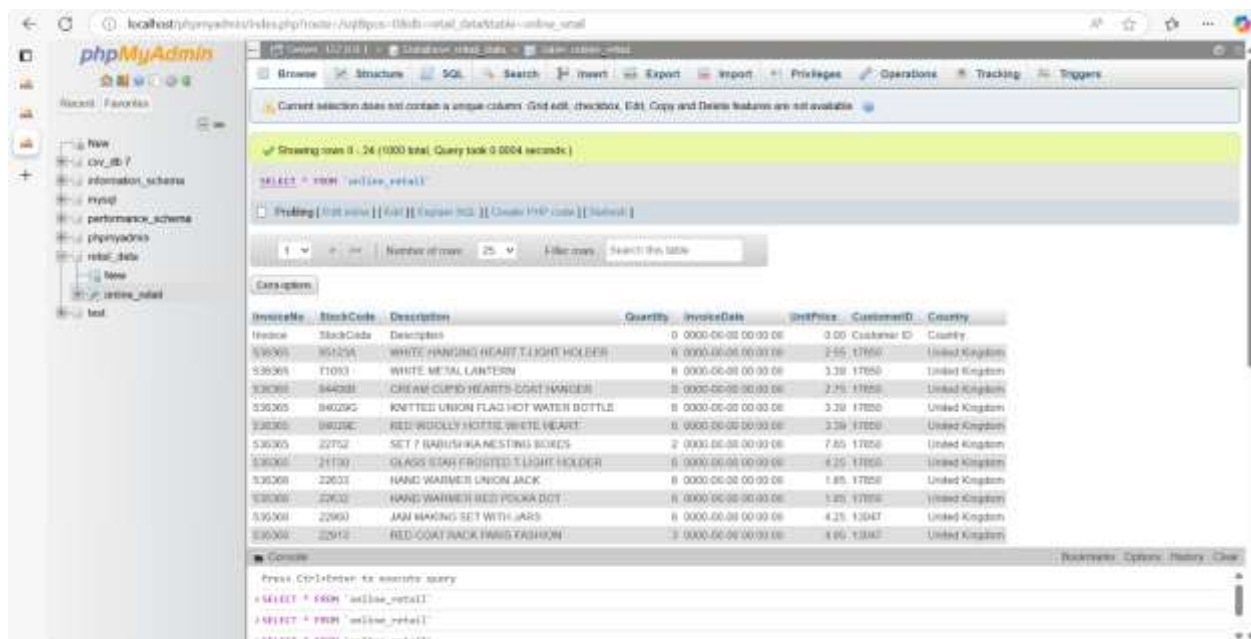
```
FIELDS TERMINATED BY ','
```

```
ENCLOSED BY '"'
```

```
LINES TERMINATED BY '\r\n'
```

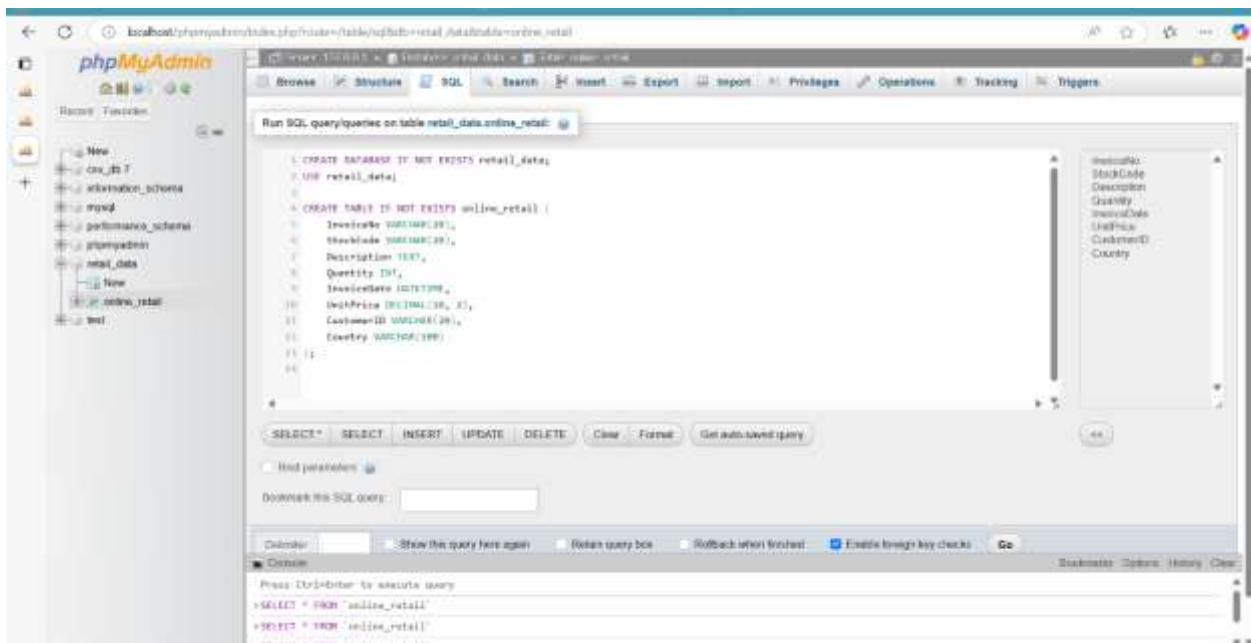
```
IGNORE 1 ROWS
```

```
(InvoiceNo, StockCode, Description, Quantity, InvoiceDate, UnitPrice, CustomerID, Country);
```



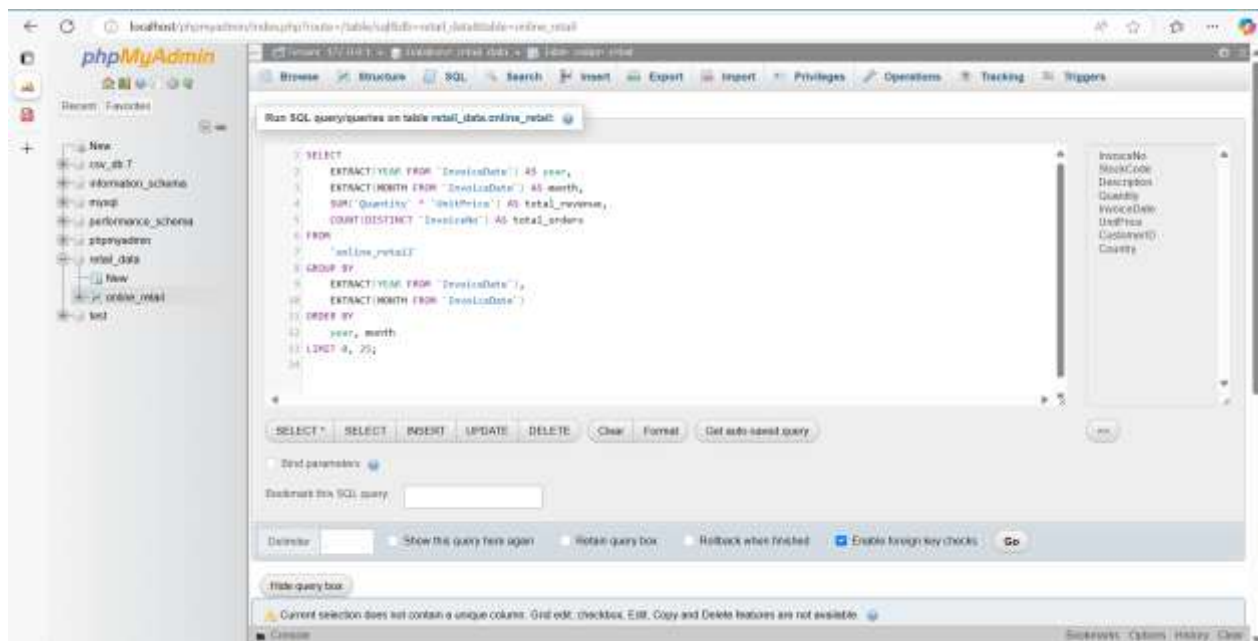
The screenshot shows the phpMyAdmin interface for the 'retail_data' database. The 'online_retail' table is selected, and its structure is displayed. The table has 8 columns: InvoiceNo, StockCode, Description, Quantity, InvoiceDate, UnitPrice, CustomerID, and Country. The data is shown in a table format with 10 rows. The first row is the header, and the following 9 rows contain sample data.

InvoiceNo	StockCode	Description	Quantity	InvoiceDate	UnitPrice	CustomerID	Country
536301	85125A	WHITE HANGING HEART T-LIGHT HOLDER	6	0000-00-00 00:00:00	2.55	17750	United Kingdom
536301	11013	WHITE METAL LANTERN	6	0000-00-00 00:00:00	3.39	17750	United Kingdom
536301	84403B	CHEAM CUPID HEARTS COAT HANGER	6	0000-00-00 00:00:00	2.75	17750	United Kingdom
536301	84029G	KNITTED UNION FLAG HOT WATER BOTTLE	6	0000-00-00 00:00:00	3.20	17750	United Kingdom
536301	89010C	RED WOOLLY HOTTIE WHITE HEART	6	0000-00-00 00:00:00	3.29	17750	United Kingdom
536301	22762	SET 7 BABUSHKA NESTING BOXES	2	0000-00-00 00:00:00	7.85	17750	United Kingdom
536301	21130	GLASS SCAR PROTECTED T-LIGHT HOLDER	6	0000-00-00 00:00:00	4.25	17750	United Kingdom
536301	22631	HAND WARMER UNION JACK	6	0000-00-00 00:00:00	1.85	17750	United Kingdom
536301	22632	HAND WARMER RED POCKA DOT	6	0000-00-00 00:00:00	1.85	17750	United Kingdom
536301	22960	JAM MAKING SET WITH JARS	6	0000-00-00 00:00:00	4.25	13047	United Kingdom
536301	22912	RED COAT RACK HANG FASHION	3	0000-00-00 00:00:00	8.90	13047	United Kingdom



SQL Queries Based on Hints

- Extracts YEAR and MONTH from InvoiceDate
- Calculates:
- Total revenue = Quantity × UnitPrice
- Total orders = count of unique InvoiceNo
 - Groups data **monthly**
 - Sorts by year and month
- Limits output to **first 25 rows**.



localhost/phpmyadmin/index.php?route=/table/sql/online_retail_data/online_retail

phpMyAdmin

Recent Favorites

Now
Chr_B_T
information_schema
mysql
performance_schema
phpmyadmin
retail_data
retail_data
New
online_retail
test

Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Show query box

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Your SQL query has been executed successfully

```
SELECT EXTRACT(YEAR FROM `timestamp`) AS year, EXTRACT(MONTH FROM `timestamp`) AS month, SUM(Quantity) * UnitPrice AS total_revenue, COUNT(DISTINCT `timestamp`) AS total_orders FROM `online_retail` GROUP BY EXTRACT(YEAR FROM `timestamp`), EXTRACT(MONTH FROM `timestamp`) ORDER BY year, month LIMIT 6, 25
```

☐ Pulling ☐ SQL view ☐ SQL ☐ Open SQL ☐ Open PHP code ☐ Refresh

Extra options

year	month	total_revenue	total_orders
0	0	24503.75	07

Query results operations

☐ Print ☐ Copy to clipboard ☐ Export ☐ Display chart ☐ Create view

☐ Bookmark this SQL query

Label: ☐ Let every user access this bookmark

☐ Bookmark this SQL query

Database: Bookmarks: Options: History: Clear