

# SQL Task 3 - Data Analysis Report

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*Course: Data Analytics / SQL Essentials*

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*Submitted as part of Task 3 - SQL for Data Analysis*

# SQL Queries Used

## 1. Create Database

```
CREATE DATABASE IF NOT EXISTS ECCOMERCE;  
USE ECCOMERCE;
```

## 2. Enable CSV Import

```
SET GLOBAL local_infile = 1;
```

## 3. Create Table

```
CREATE TABLE IF NOT EXISTS ecommerce (...);
```

## 4. Load Data

```
LOAD DATA LOCAL INFILE 'D:/desktop/ELEVATE LABS/Task 3/ecommerce.csv' ...;
```

## 5. Verify Data

```
SELECT COUNT(*) AS total_rows FROM ecommerce;  
SELECT * FROM ecommerce LIMIT 10;
```

## 6. Analysis Queries

- Total Revenue Query
- Monthly Revenue Query
- Top Countries Query

## 7. Indexes for Optimization

```
CREATE INDEX idx_date ON ecommerce(InvoiceDate);  
CREATE INDEX idx_country ON ecommerce(Country);
```

# Result Screenshots

## Screenshot 1: Database Creation, Data Load, and Row Count Output

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with 'ecommerce' selected. The main editor shows a SQL query with the following content:

```
25 OPTIONALLY ENCLOSED BY ''
26 LINES TERMINATED BY '\r\n' -- Windows line endings
27 IGNORE 1 ROWS
28 (InvoiceNo, StockCode, Description, Quantity, @InvoiceDate, UnitPrice, CustomerID, Count)
29 SET InvoiceDate = STR_TO_DATE(@InvoiceDate, '%m/%d/%Y %H:%i'); -- convert date
30
31 -- 4. Verify data load
32 • SELECT COUNT(*) AS total_rows FROM ecommerce;
```

The 'Result Grid' shows the output of the query:

total_rows
541909

The 'Action Output' pane at the bottom shows the execution log:

#	Time	Action	Message
1	22:12:36	CREATE DATABASE IF NOT EXISTS ECCOMERCE	1 row(s) affected
2	22:12:36	USE ECCOMERCE	0 row(s) affected
3	22:20:24	CREATE DATABASE IF NOT EXISTS ECCOMERCE	1 row(s) affected, 1 warning(s): 1007 Can't create database 'ecommerce': database exists
4	22:20:24	USE ECCOMERCE	0 row(s) affected
5	22:20:34	CREATE DATABASE IF NOT EXISTS ECCOMERCE	1 row(s) affected, 1 warning(s): 1007 Can't create database 'ecommerce': database exists

Screenshot 1: Database Creation, Data Load, and Row Count Output

## Screenshot 2: Sample Data (SELECT \* LIMIT 10)

## 31 -- 4. Verify data load

chemas

<div>Result Grid</div> <div><div>Filter Rows:</div><div>Export:</div><div>Wrap Cell Content:</div><div>Fetch rows:</div></div>								
	InvoiceNo	StockCode	Description	Quantity	InvoiceDate	UnitPrice	CustomerID	Country
▶	536365	85123A	WHITE HANGING HEART T-LIGHT HOLDER	6	NULL	2.55	17850	United Kingdom
	536365	71053	WHITE METAL LANTERN	6	NULL	3.39	17850	United Kingdom
	536365	84406B	CREAM CUPID HEARTS COAT HANGER	8	NULL	2.75	17850	United Kingdom
	536365	84029G	KNITTED UNION FLAG HOT WATER BOTTLE	6	NULL	3.39	17850	United Kingdom
	536365	84029E	RED WOOLLY HOTTIE WHITE HEART.	6	NULL	3.39	17850	United Kingdom
	536365	22752	SET 7 BABUSHKA NESTING BOXES	2	NULL	7.65	17850	United Kingdom
	536365	21730	GLASS STAR FROSTED T-LIGHT HOLDER	6	NULL	4.25	17850	United Kingdom
	536366	22633	HAND WARMER UNION JACK	6	NULL	1.85	17850	United Kingdom
	536366	22632	HAND WARMER RED POLKA DOT	6	NULL	1.85	17850	United Kingdom
	536367	84879	ASSORTED COLOUR BIRD ORNAMENT	32	NULL	1.69	13047	United Kingdom

ected

Screenshot 2: Sample Data (SELECT \* LIMIT 10)

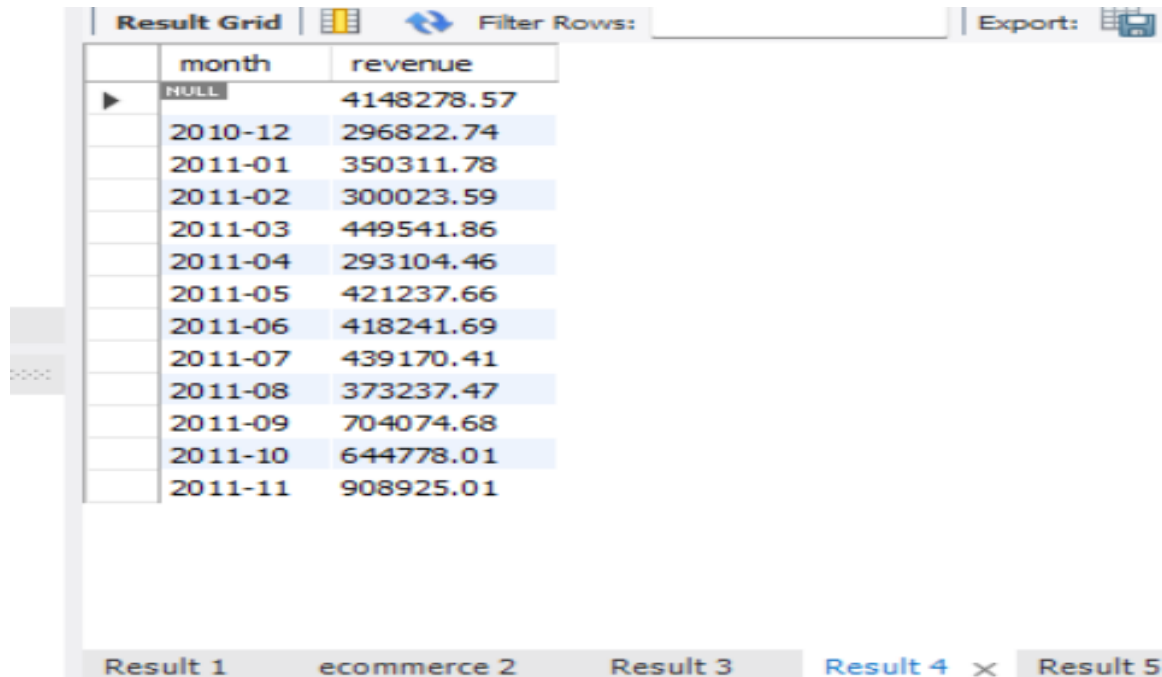
## Screenshot 3: Total Revenue Calculation

Result Grid	Filter Rows:
total_revenue	
9747747.93	

Result 1   ecommerce 2   Result 3 ×   Result 4

Screenshot 3: Total Revenue Calculation

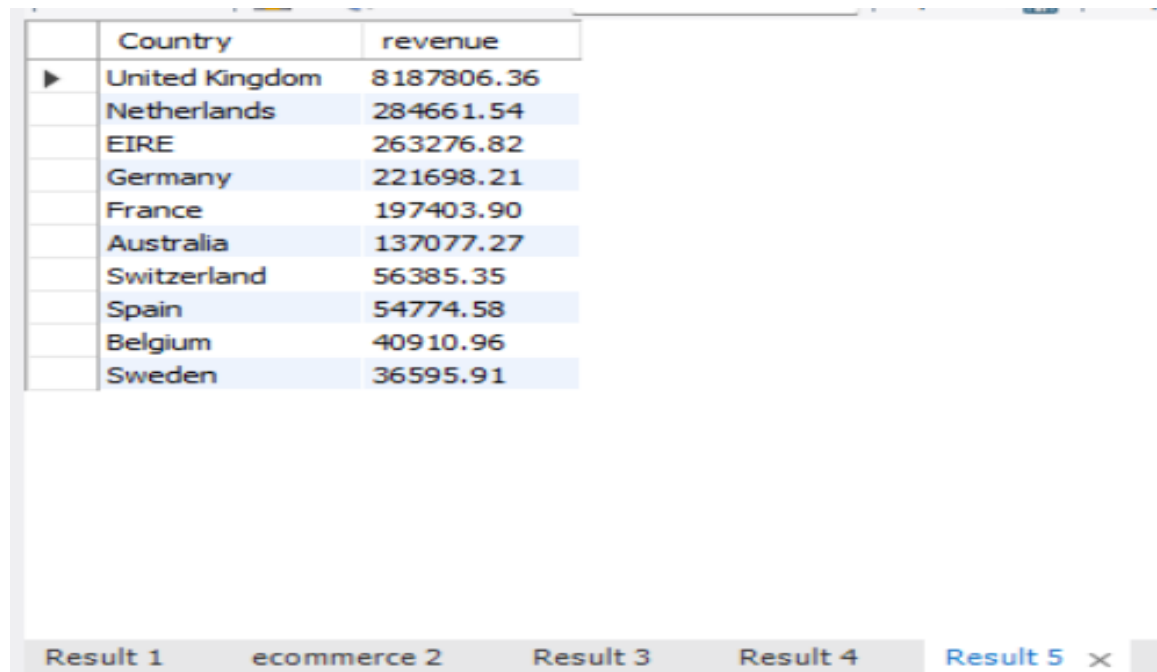
## Screenshot 4: Monthly Revenue Summary



	month	revenue
▶	NULL	4148278.57
	2010-12	296822.74
	2011-01	350311.78
	2011-02	300023.59
	2011-03	449541.86
	2011-04	293104.46
	2011-05	421237.66
	2011-06	418241.69
	2011-07	439170.41
	2011-08	373237.47
	2011-09	704074.68
	2011-10	644778.01
	2011-11	908925.01

Screenshot 4: Monthly Revenue Summary

## Screenshot 5: Top Countries by Revenue



	Country	revenue
▶	United Kingdom	8187806.36
	Netherlands	284661.54
	EIRE	263276.82
	Germany	221698.21
	France	197403.90
	Australia	137077.27
	Switzerland	56385.35
	Spain	54774.58
	Belgium	40910.96
	Sweden	36595.91

Screenshot 5: Top Countries by Revenue

