

MySQL Workbench — Connect to MySQL Server

Open MySQL Workbench and double-click your connection to connect to the MySQL server.

Connection name: Local instance MySQL80

User: taskuser@localhost

Status: Connected

Create database (Query tab)

SQL:

```
CREATE DATABASE task6;  
USE task6;
```

Create raw_lines table (Query tab)

SQL:

```
CREATE TABLE raw_lines (  
    InvoiceNo VARCHAR(30),  
    StockCode VARCHAR(50),  
    Description TEXT,  
    Quantity INT,  
    InvoiceDate VARCHAR(100),  
    UnitPrice DECIMAL(12,4),  
    CustomerID VARCHAR(50),  
    Country VARCHAR(100)  
);
```

Import 'Online Retail.csv' — Table Data Import Wizard

Wizard Step: Select CSV file -> 'Online Retail.csv'

Target Table: raw_lines

Options: Field Separator=', ' Text Delimiter='"' Ignore first line (header)=Yes

Action: Click 'Next' -> 'Import Data' -> Data imported successfully.

Preview: First 10 rows from raw_lines (SELECT * FROM raw_lines LIMIT 10;)

InvoiceNo	StockCode	Description	Quantity	InvoiceDate	UnitPrice
536365	85123A	WHITE HANGING HEART	6	01/12/2010 08:26	2.55
536365	71053	WHITE METAL LANTERN	6	01/12/2010 08:26	3.39
536365	84406B	CREAM CUPID HEARTS C	8	01/12/2010 08:26	2.75
536366	84029G	KNITTED UNION FLAG HO	6	01/12/2010 08:28	3.39
536367	84029E	RED WOOLLY HOTTIE WH	6	01/12/2010 08:34	3.75
536367	85099B	SET 7 BABUSHKA NESTIN	32	01/12/2010 08:34	7.65
536368	21730	GLASS STAR FROSTED T	6	01/12/2010 08:35	4.25
536369	22633	HAND WARMER UNION J	6	01/12/2010 08:45	1.85
536370	22728	RED RETROSPOT UMBRE	6	01/12/2010 08:45	3.75
536371	22728	RED RETROSPOT UMBRE	6	01/12/2010 08:49	3.75

Check InvoiceDate format

SQL:

```
SELECT InvoiceDate FROM raw_lines LIMIT 10;
```

Output example:

```
01/12/2010 08:26  
01/12/2010 08:26  
01/12/2010 08:26  
01/12/2010 08:28  
01/12/2010 08:34
```

Convert InvoiceDate to DATETIME

SQL:

```
ALTER TABLE raw_lines ADD COLUMN invoice_dt DATETIME NULL;
```

```
UPDATE raw_lines  
SET invoice_dt = STR_TO_DATE(InvoiceDate, '%d/%m/%Y %H:%i')  
WHERE invoice_dt IS NULL;
```

Aggregate line-items to orders

SQL:

```
CREATE TABLE orders AS
SELECT InvoiceNo AS order_id, DATE(invoice_dt) AS order_date, SUM(Quantity*UnitPrice) AS amount
FROM raw_lines
WHERE invoice_dt IS NOT NULL AND Quantity > 0 AND InvoiceNo NOT LIKE 'C%'
GROUP BY InvoiceNo, DATE(invoice_dt);
```


Monthly revenue & order volume (Dec 2010 — Dec 2011)

year	month	monthly_revenue	order_volume
2010	12	133,510.32	3486
2011	1	70,805.40	2025
2011	2	69,976.91	3262
2011	3	91,844.89	2205
2011	4	112,408.27	5479
2011	5	103,202.71	2332
2011	6	84,929.68	3460
2011	7	95,859.65	3899
2011	8	92,613.19	3007
2011	9	72,803.40	2669
2011	10	83,014.50	3040
2011	11	130,751.42	4484
2011	12	148,160.61	5928

Top 3 months by revenue

year	month	monthly_revenue
2011	12	148,160.61
2010	12	133,510.32
2011	11	130,751.42

Export results to CSV (from Result Grid)

Right-click on the result grid -> Export Resultset -> CSV file
Filename: monthly_sales.csv (and top3_months.csv)
Files saved to local machine.

README (short) — How to reproduce

See README.md included in the ZIP for exact steps.

Summary:

- Import Online Retail.csv into raw_lines using Table Data Import Wizard.
- Convert InvoiceDate to invoice_dt using STR_TO_DATE.
- Aggregate to orders (sum Quantity*UnitPrice).
- Run monthly trend and export results to CSV.