Orchestrated Domain-Driven Data Mesh Analytics

ByChirayuMahar | OrchestratedDomain-DrivenDataMeshArchitecture

✓ Data loaded successfully!

Main file:data/main.xlsx (541,909 rows)

Zone file:data/taxi.xlsx (265 rows)



Data Preview

☐ View Main Dataset Sample

First 10 rows of main dataset:

| | InvoiceNo | StockCode | Description | Quantity | InvoiceDate | UnitPrice | CustomerID | Country |
|---|-----------|-----------|-------------------------------------|----------|---------------------|-----------|------------|----------------|
| 0 | 536365 | 85123A | WHITE HANGING HEART T-LIGHT HOLDER | 6 | 2010-12-01 08:26:00 | 2.55 | 17850 | United Kingdom |
| 1 | 536365 | 71053 | WHITE METAL LANTERN | 6 | 2010-12-01 08:26:00 | 3.39 | 17850 | United Kingdom |
| 2 | 536365 | 84406B | CREAM CUPID HEARTS COAT HANGER | 8 | 2010-12-01 08:26:00 | 2.75 | 17850 | United Kingdom |
| 3 | 536365 | 84029G | KNITTED UNION FLAG HOT WATER BOTTLE | 6 | 2010-12-01 08:26:00 | 3.39 | 17850 | United Kingdom |
| 4 | 536365 | 84029E | RED WOOLLY HOTTIE WHITE HEART. | 6 | 2010-12-01 08:26:00 | 3.39 | 17850 | United Kingdom |
| 5 | 536365 | 22752 | SET 7 BABUSHKA NESTING BOXES | 2 | 2010-12-01 08:26:00 | 7.65 | 17850 | United Kingdom |
| 6 | 536365 | 21730 | GLASS STAR FROSTED T-LIGHT HOLDER | 6 | 2010-12-01 08:26:00 | 4.25 | 17850 | United Kingdom |
| 7 | 536366 | 22633 | HAND WARMER UNION JACK | 6 | 2010-12-01 08:28:00 | 1.85 | 17850 | United Kingdom |
| 8 | 536366 | 22632 | HAND WARMER RED POLKA DOT | 6 | 2010-12-01 08:28:00 | 1.85 | 17850 | United Kingdom |
| 9 | 536367 | 84879 | ASSORTED COLOUR BIRD ORNAMENT | 32 | 2010-12-01 08:34:00 | 1.69 | 13047 | United Kingdom |

☐ View Zone Lookup Data

localhost:8505

Dataset Overview

Total Trips

Columns

8

136,534

Missing Values

Zones

265

541,909

☐ **Column Details**



Trips by Borough

① Could not automatically detect required columns for borough analysis.

Looking for:

- Pickup location column (containing 'PULocation' or 'pickup')
- Borough column in zone lookup
- LocationID column in zone lookup

Available columns:

Main dataset:

```
0: "InvoiceNo"
1: "StockCode"
2: "Description"
3: "Quantity"
4: "InvoiceDate"
5: "UnitPrice"
6: "CustomerID"
7: "Country"
```

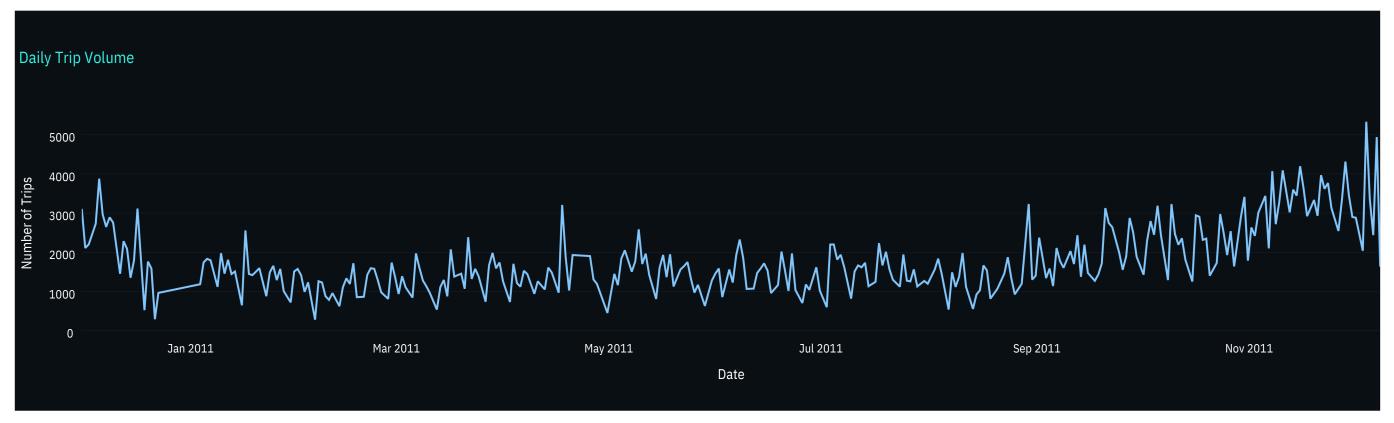
Zone lookup:

```
0: "LocationID"
1: "Borough"
2: "Zone"
3: "service_zone"
```

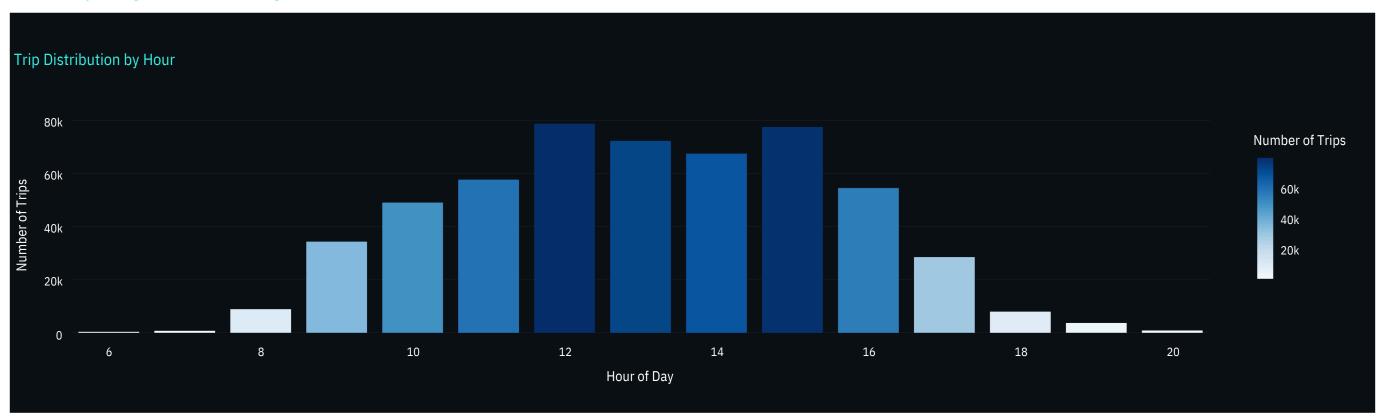
localhost:8505

10/8/25, 7:51 PM NYC Taxi Data Analytics

Trips Over Time



Trips by Hour of Day



localhost:8505

10/8/25, 7:51 PM NYC Taxi Data Analytics

Interactive Data Explorer

Select columns to view:

InvoiceNo × StockCode × Description × Quantity × InvoiceDate ×

Number of rows

50

| InvoiceNo | | StockCode | Description | Quantity | InvoiceDate |
|-----------|--------|-----------|-------------------------------------|----------|---------------------|
| 0 | 536365 | 85123A | WHITE HANGING HEART T-LIGHT HOLDER | 6 | 2010-12-01 08:26:00 |
| 1 | 536365 | 71053 | WHITE METAL LANTERN | 6 | 2010-12-01 08:26:00 |
| 2 | 536365 | 84406B | CREAM CUPID HEARTS COAT HANGER | 8 | 2010-12-01 08:26:00 |
| 3 | 536365 | 84029G | KNITTED UNION FLAG HOT WATER BOTTLE | 6 | 2010-12-01 08:26:00 |
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| 9 | 536367 | 84879 | ASSORTED COLOUR BIRD ORNAMENT | 32 | 2010-12-01 08:34:00 |



Download Full Dataset as CSV

Download Zone Lookup as CSV

🧎 Orchestrated Domain-Driven Data Mesh Architecture | Built with Streamlit & Plotly

Supports both Excel (.xlsx) and CSV files

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