
Superstore Dataset (60 rows)

OrderID, OrderDate, ShipDate, Region, City, CustomerID, CustomerName, Segment, Category, SubCategory, ProductName, Quantity, UnitPrice, Discount, Sales, Profit, Returned

1001, 2024-01-02, 2024-01-05, West, Los Angeles, C001, David Miller, Consumer, Technology, Laptops, HP Pavilion 15, 1, 720, 0, 720, 95, No

1002, 2024-01-02, 2024-01-06, Central, Chicago, C002, Sarah Johnson, Corporate, Furniture, Chairs, ErgoMax Pro Chair, 2, 140, 0.1, 252, 30, No

1003, 2024-01-03, 2024-01-07, East, New York, C003, John Lee, Home Office, Office Supplies, Binders, Premium Binder Pack, 5, 12, 0, 60, 11, No

1004, 2024-01-03, 2024-01-08, South, Miami, C004, Ana Gomez, Consumer, Technology, Phones, Samsung Galaxy A54, 1, 399, 0.05, 379.05, 48, No

1005, 2024-01-04, 2024-01-09, West, Seattle, C005, Karen Black, Consumer, Furniture, Tables, Oak Wooden Table, 1, 450, 0, 450, 52, Yes

1006, 2024-01-04, 2024-01-08, Central, Denver, C006, Robert Brown, Corporate, Office Supplies, Pens, Blue Pen Pack (20), 3, 8, 0, 24, 5, No

1007, 2024-01-05, 2024-01-10, East, Boston, C007, Emily Davis, Consumer, Technology, Accessories, Wireless Mouse, 4, 18, 0, 72, 14, No

1008, 2024-01-05, 2024-01-11, South, Atlanta, C008, Kyle Young, Home Office, Furniture, Chairs, ComfortMesh Chair, 1, 160, 0.15, 136, 19, No

1009, 2024-01-06, 2024-01-12, West, Portland, C009, Sophia Hill, Consumer, Technology, Phones, iPhone SE, 2, 429, 0, 858, 115, No

1010, 2024-01-06, 2024-01-13, Central, St. Louis, C010, Tom Harris, Corporate, Office Supplies, Paper, A4 Copier Paper (500), 10, 5, 0, 50, 6, No

1011, 2024-01-07, 2024-01-14, East, Philadelphia, C011, Olivia Adams, Home Office, Furniture, Tables, Adjustable Standing Desk, 1, 320, 0.1, 288, 35, No

1012, 2024-01-07, 2024-01-15, South, Orlando, C012, Ethan Clark, Consumer, Technology, Accessories, USB-C Cable, 6, 9, 0, 54, 12, No

1013, 2024-01-08, 2024-01-16, West, San Diego, C013, Isabella Scott, Consumer, Furniture, Sofas, Modern Sofa 3-Seater, 1, 850, 0.2, 680, 88, Yes

1014, 2024-01-08, 2024-01-17, Central, Minneapolis, C014, George Wilson, Corporate, Office Supplies, Markers, Color Marker Set, 4, 7, 0, 28, 4, No

1015, 2024-01-09, 2024-01-18, East, Newark, C015, Abigail Perez, Consumer, Technology, Tablets, iPad 10th Gen, 1, 450, 0.05, 427.5, 60, No

1016, 2024-01-09, 2024-01-19, South, Charlotte, C016, Noah Walker, Home Office, Furniture, Desks, Compact Writing Desk, 1, 210, 0, 210, 27, No

1017,2024-01-10,2024-01-20,West,Las Vegas,C017,Michael
Green,Consumer,Technology,TVs,Sony 43-inch LED,1,540,0.1,486,62,No
1018,2024-01-10,2024-01-21,Central,Columbus,C018,Chloe
Ramirez,Corporate,Office Supplies,Notebooks,Hardcover
Notebook,8,4,0,32,6,No
1019,2024-01-11,2024-01-22,East,Baltimore,C019,Lucas
Cook,Consumer,Technology,Accessories,Laptop Stand,2,24,0,48,12,No
1020,2024-01-11,2024-01-23,South,Nashville,C020,Ava Howard,Home
Office,Furniture,Chairs,Executive Leather Chair,1,260,0.05,247,28,No
1021,2024-01-12,2024-01-24,West,Sacramento,C021,Daniel
Ward,Consumer,Furniture,Bed,Queen Bed Frame,1,600,0.1,540,72,Yes
1022,2024-01-12,2024-01-25,Central,Kansas City,C022,Harper
Reed,Corporate,Office Supplies,Envelopes,White Envelope Pack,6,3,0,18,3,No
1023,2024-01-13,2024-01-26,East,Pittsburgh,C023,Benjamin
Brooks,Consumer,Technology,Accessories,Keyboard,3,22,0.1,59.4,9,No
1024,2024-01-13,2024-01-27,South,San Antonio,C024,Grace Bennett,Home
Office,Furniture,Shelves,Wooden Shelf Unit,1,180,0,180,24,No
1025,2024-01-14,2024-01-28,West,Fresno,C025,Elijah
Rivera,Consumer,Technology,Laptops,Dell Inspiron 14,1,640,0,640,85,No
1026,2024-01-14,2024-01-29,Central,Indianapolis,C026,Mia
Mitchell,Corporate,Office Supplies,Stapler,Premium Stapler,2,14,0,28,5,No
1027,2024-01-15,2024-01-30,East,Cleveland,C027,Henry
Price,Consumer,Furniture,Tables,Round Dining Table,1,520,0.05,494,58,No
1028,2024-01-15,2024-01-31,South,Dallas,C028,Lily Torres,Home
Office,Technology,Printers,HP LaserJet Pro,1,290,0,290,34,No
1029,2024-01-16,2024-02-01,West,San Jose,C029,Owen Jenkins,Consumer,Office
Supplies,Binders,Premium Binders (12),2,11,0,22,4,No
1030,2024-01-16,2024-02-02,Central,Detroit,C030,Aiden
Lewis,Corporate,Technology,Accessories,Webcam,1,45,0,45,9,No

A. DATA LOADING & INSPECTION (5)

1. Load the CSV and display first 10 rows.
 2. Show total number of rows and columns.
 3. Find data types of each column.
 4. Identify columns containing missing values.
 5. Convert OrderDate and ShipDate to datetime.
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B. CLEANING & TRANSFORMATIONS (5)

6. Create a new column `ShippingDays` = `ShipDate` - `OrderDate`.
 7. Create `ProfitMargin` = `Profit` / `Sales`.
 8. Standardize `CustomerName` to title case.
 9. Remove rows where `Sales` is zero or negative.
 10. Convert `Discount` from decimal to percentage format.
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C. FILTERING (5)

11. Filter all orders from the West region.
 12. Filter Technology category with `Sales` > 400.
 13. Find all products returned by customers.
 14. Show Furniture orders shipped after 2024-01-20.
 15. Filter orders where `Profit` < 20.
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D. SORTING (5)

16. Sort by `Sales` descending.
 17. Sort by `ProfitMargin`.
 18. Sort by Region then City.
 19. Sort by `ShippingDays` largest to smallest.
 20. Sort by `CustomerName` alphabetical.
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E. GROUPBY ANALYSIS (6)

21. Total Sales per Region.
 22. Average Profit per Category.
 23. Count of orders per Customer.
 24. Sum of Sales per Segment.
 25. Total Quantity sold per SubCategory.
 26. Mean `ShippingDays` grouped by Category.
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