

```

1 SELECT TOP (1000) [transaction_id]
2     ,[user_id]
3     ,[product_category]
4     ,[payment_method]
5     ,[transaction_amount]
6     ,[purchase_date]
7     ,[delivery_status]
8 FROM [Ecommerce_data_].[dbo].[ecommerce_transactions_dataset]
9
10 SELECT user_id, COUNT(transaction_id) AS total_orders, SUM(transaction_amount) AS total_spent
11 FROM ecommerce_transactions_dataset
12 WHERE delivery_status = 'Delivered'
13 GROUP BY user_id
14 ORDER BY total_spent DESC;
15 select * from ecommerce_transactions_dataset

```

Results Messages

| transaction_id | user_id | product_category | payment_method | transaction_amount | purchase_date | delivery_status |
|---------------------------------------|---------|------------------|----------------|--------------------|---------------|-----------------|
| 00152fd-f6ac-4c3b-b8b9-e645512d613b | U4861 | Electronics | UPI | 4842.5400390625 | 2023-12-12 | Returned |
| 007971d4-38aa-407f-ba83-ed570096fd60 | U2211 | Clothing | Credit Card | 4842.5400390625 | 2024-05-17 | Delivered |
| 0148140e-b2b5-4462-b2b3-6b67c503a83e | U9505 | Home | COD | 4842.5400390625 | 2024-05-23 | Returned |
| 03cc2d86-ed6a-41b6-918e-3c1461c96259 | U6470 | Books | COD | 4842.5400390625 | 2025-05-28 | Returned |
| 0462f789-54f2-4362-a299-cee8805928c2 | U5332 | Beauty | Debit Card | 4842.5400390625 | 2024-06-18 | Shipped |
| 046e5483-81d9-46f0-add9-ce39f9a9a9c | U8206 | Beauty | Credit Card | 4842.5400390625 | 2023-08-03 | Delivered |
| 0570c69e-0f04-4534-828a-9625c4dee994 | U1317 | Books | COD | 4842.5400390625 | 2025-03-13 | Returned |
| 066d7835-f695-418e-96b5-581a70798fa8 | U4832 | Electronics | UPI | 4842.5400390625 | 2025-03-13 | Cancelled |
| 06ec8323-9c97-49f3-ae66-de0e0f7fce2b | U2928 | Home | UPI | 4842.5400390625 | 2024-07-22 | Cancelled |
| 072b2b58-83a1-4514-97d8-ecce4fb9edf7f | U5175 | Books | Credit Card | 4842.5400390625 | 2024-03-04 | Cancelled |
| 074580a5-50ec-4626-b907-3400029e8b0c | U6492 | Books | Credit Card | 4842.5400390625 | 2023-11-19 | Returned |
| 08c8ec42-4f03-4ce0-b8bc-27ee40ce5c91 | U2164 | Beauty | UPI | 4842.5400390625 | 2023-09-24 | Cancelled |
| 095cb327-5449-475c-8a54-4206adabe4b4 | U7130 | Home | Net Banking | 4842.5400390625 | 2024-12-12 | Delivered |
| 0b204a3c-dae5-464d-89f9-aa5979df32fb | U1386 | Clothing | Debit Card | 4842.5400390625 | 2025-04-12 | Cancelled |
| 0bd66f36-10ba-41e0-9d51-1d96aa10f914 | U1693 | Books | UPI | 4842.5400390625 | 2023-11-28 | Delivered |
| 0c7eb511-c1c6-4d53-84e9-89dfdf7d90b | U3044 | Electronics | COD | 4842.5400390625 | 2025-04-19 | Delivered |

```

1 SELECT TOP (1000) [transaction_id]
2     ,[user_id]
3     ,[product_category]
4     ,[payment_method]
5     ,[transaction_amount]
6     ,[purchase_date]
7     ,[delivery_status]
8 FROM [Ecommerece_data_] column delivery_status(nvarchar, not null) ns_dataset]
9
10 SELECT user_id, COUNT(transaction_id) AS total_orders, SUM(transaction_amount) AS total_spent
11 FROM ecommerce_transactions_dataset
12 WHERE delivery_status = 'Delivered'
13 GROUP BY user_id
14 ORDER BY total_spent DESC;
15 select * from ecommerce_transactions_dataset

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119 %

Results Messages

| | user_id | total_orders | total_spent |
|----|---------|--------------|-----------------|
| 1 | U1048 | 1 | 4842.5400390625 |
| 2 | U1066 | 1 | 4842.5400390625 |
| 3 | U1151 | 1 | 4842.5400390625 |
| 4 | U1162 | 1 | 4842.5400390625 |
| 5 | U1223 | 1 | 4842.5400390625 |
| 6 | U1354 | 1 | 4842.5400390625 |
| 7 | U1564 | 1 | 4842.5400390625 |
| 8 | U1639 | 1 | 4842.5400390625 |
| 9 | U1678 | 1 | 4842.5400390625 |
| 10 | U1687 | 1 | 4842.5400390625 |
| 11 | U1693 | 1 | 4842.5400390625 |
| 12 | U1709 | 1 | 4842.5400390625 |
| 13 | U1838 | 1 | 4842.5400390625 |
| 14 | U1847 | 1 | 4842.5400390625 |
| 15 | U1847 | 1 | 4842.5400390625 |

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40 ('Jewellery', 10500.00, 100, 'High'),
41 ('Kitchenware', 1600.00, 500, 'Medium');
42
43 --Inner join
44 SELECT
45     et.transaction_id,
46     et.product_category,
47     et.transaction_amount,
48     pd.average_price,
49     pd.total_stock,
50     pd.brand_popularity
51 FROM ecommerce_transactions_dataset et
52 INNER JOIN product_details pd
53 ON et.product_category = pd.product_category;

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19 %

Results Messages

| | transaction_id | product_category | transaction_amount | average_price | total_stock | brand_popularity |
|----|--------------------------------------|------------------|--------------------|---------------|-------------|------------------|
| 1 | 001528d-f6ac-4c3b-b8b9-e645512d613b | Electronics | 4842.5400390625 | 15000.00 | 200 | High |
| 2 | 007971d4-38aa-407f-ba83-ed570096d60 | Clothing | 4842.5400390625 | 1800.00 | 800 | Medium |
| 3 | 0148140e-b2b5-4462-b2b3-6b67c503a83e | Home | 4842.5400390625 | 3500.00 | 300 | Medium |
| 4 | 03cc2d86-ed6a-41b6-918e-3c1461c96259 | Books | 4842.5400390625 | 550.00 | 900 | Low |
| 5 | 0462789-54f2-4362-a299-cee8805928c2 | Beauty | 4842.5400390625 | 1200.00 | 500 | High |
| 6 | 046e5483-81d9-46f0-add9-ce39f99a9a9c | Beauty | 4842.5400390625 | 1200.00 | 500 | High |
| 7 | 0570c69e-0f04-4534-828a-9625c4dee994 | Books | 4842.5400390625 | 550.00 | 900 | Low |
| 8 | 066d7835-6695-418e-96b5-581a70798fa8 | Electronics | 4842.5400390625 | 15000.00 | 200 | High |
| 9 | 06ec8323-9c97-49f3-ae66-de0e07f7ce2b | Home | 4842.5400390625 | 3500.00 | 300 | Medium |
| 10 | 072b2b58-83a1-4514-97d8-ec04fb9edf7f | Books | 4842.5400390625 | 550.00 | 900 | Low |
| 11 | 074580a5-50ec-4626-b907-3400029e8b0c | Books | 4842.5400390625 | 550.00 | 900 | Low |
| 12 | 08c8ec42-4f03-4ce0-b8bc-27ee40ce5c91 | Beauty | 4842.5400390625 | 1200.00 | 500 | High |
| 13 | 095cb327-5449-475c-8a54-4206adabe4b4 | Home | 4842.5400390625 | 3500.00 | 300 | Medium |
| 14 | 0b204a3c-dae5-464d-89f9-aa5979df32fb | Clothing | 4842.5400390625 | 1800.00 | 800 | Medium |
| 15 | 0bd66f36-10ba-41e0-9d51-1d96aa10f914 | Books | 4842.5400390625 | 550.00 | 900 | Low |
| 16 | 0c7eb511-c1c6-4d53-84e9-89dfdf7d90b | Electronics | 4842.5400390625 | 15000.00 | 200 | High |
| 17 | 0cf... (truncated) | Clothing | 4842.5400390625 | 1800.00 | 800 | Medium |

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52 INNER JOIN product_details pd
53 ON et.product_category = pd.product_category;
54
55 --Left Join
56 SELECT
57     et.transaction_id,
58     et.user_id,
59     et.product_category,
60     et.transaction_amount,
61     pd.average_price,
62     pd.total_stock,
63     pd.brand_popularity
64 FROM ecommerce_transactions_dataset et
65 LEFT JOIN product_details pd |
66 ON et.product_category = pd.product_category;

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19 %

Results Messages

| transaction_id | user_id | product_category | transaction_amount | average_price | total_stock | brand_popularity |
|--------------------------------------|---------|------------------|--------------------|---------------|-------------|------------------|
| 00152ff4-f6ac-4c3b-b8b9-e645512d613b | U4861 | Electronics | 4842.5400390625 | 15000.00 | 200 | High |
| 007971d4-38aa-407f-ba83-ed570096d60 | U2211 | Clothing | 4842.5400390625 | 1800.00 | 800 | Medium |
| 0148140e-b2b5-4462-b2b3-6b67c503a83e | U9505 | Home | 4842.5400390625 | 3500.00 | 300 | Medium |
| 03cc2d86-ed6a-41b6-918e-3c1461c96259 | U6470 | Books | 4842.5400390625 | 550.00 | 900 | Low |
| 0462f789-54f2-4362-a299-cee8805928c2 | U5332 | Beauty | 4842.5400390625 | 1200.00 | 500 | High |
| 046e5483-81d9-46f0-add9-ce39f99a9a9c | U8206 | Beauty | 4842.5400390625 | 1200.00 | 500 | High |
| 0570c69e-0f04-4534-828a-9625c4dee994 | U1317 | Books | 4842.5400390625 | 550.00 | 900 | Low |
| 066d7835-f695-418e-96b5-581a70798fa8 | U4832 | Electronics | 4842.5400390625 | 15000.00 | 200 | High |
| 06ec8323-9c97-49f3-ae66-de0e0f7fce2b | U2928 | Home | 4842.5400390625 | 3500.00 | 300 | Medium |
| 072b2b58-83a1-4514-97d8-ec4fb9edf7f | U5175 | Books | 4842.5400390625 | 550.00 | 900 | Low |
| 074580a5-50ec-4626-b907-3400029e8b0c | U6492 | Books | 4842.5400390625 | 550.00 | 900 | Low |
| 08c8ec42-4f03-4ce0-b8bc-27ee40ce5c91 | U2164 | Beauty | 4842.5400390625 | 1200.00 | 500 | High |
| 095cb327-5449-475c-8a54-4206adabe4b4 | U7130 | Home | 4842.5400390625 | 3500.00 | 300 | Medium |
| 0b204a3c-dae5-464d-89f9-aa5979df32fb | U1388 | Clothing | 4842.5400390625 | 1800.00 | 800 | Medium |
| 0bd66f36-10ba-41e0-9d51-1d96aa10f914 | U1693 | Books | 4842.5400390625 | 550.00 | 900 | Low |
| 0c7eb511-c1c6-4d53-84e9-89dfdfe7d90b | U3044 | Electronics | 4842.5400390625 | 15000.00 | 200 | High |
| 0d4c0b33-37b3-4055-a153-a263b1c15137 | U6335 | Clothing | 4842.5400390625 | 1800.00 | 800 | Medium |

```

64 FROM ecommerce_transactions_dataset et
65 LEFT JOIN product_details pd
66 ON et.product_category = pd.product_category;
67
68 --Right Join
69 SELECT
70     pd.product_category,
71     pd.average_price,
72     pd.total_stock,
73     et.transaction_id,
74     et.transaction_amount,
75     et.user_id
76 FROM ecommerce_transactions_dataset et
77 RIGHT JOIN product_details pd
78 ON et.product_category = pd.product_category;

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9 %

Results Messages

| | product_category | average_price | total_stock | transaction_id | transaction_amount | user_id |
|---|------------------|---------------|-------------|--------------------------------------|--------------------|---------|
| | Electronics | 15000.00 | 200 | 00152ffd-f6ac-4c3b-b8b9-e645512d613b | 4842.5400390625 | U4861 |
| | Clothing | 1800.00 | 800 | 007971d4-38aa-407f-ba83-ed570096fd60 | 4842.5400390625 | U2211 |
| | Home | 3500.00 | 300 | 0148140e-b2b5-4462-b2b3-6b67c503a83e | 4842.5400390625 | U9505 |
| | Books | 550.00 | 900 | 03cc2d86-ed6a-41b6-918e-3c1461c96259 | 4842.5400390625 | U6470 |
| | Beauty | 1200.00 | 500 | 0462f789-54f2-4362-a299-cee8805928c2 | 4842.5400390625 | U5332 |
| | Beauty | 1200.00 | 500 | 046e5483-81d9-46f0-add9-ce39f99a9a9c | 4842.5400390625 | U8206 |
| | Books | 550.00 | 900 | 0570c69e-0f04-4534-828a-9625c4dee994 | 4842.5400390625 | U1317 |
| | Electronics | 15000.00 | 200 | 066d7835-f695-418e-96b5-581a70798fa8 | 4842.5400390625 | U4832 |
| | Home | 3500.00 | 300 | 06ec8323-9c97-49f3-ae66-de0e0f7fce2b | 4842.5400390625 | U2928 |
| 0 | Books | 550.00 | 900 | 072b2b58-83a1-4514-97d8-ecc4fb9edf7f | 4842.5400390625 | U5175 |
| 1 | Books | 550.00 | 900 | 074580a5-50ec-4626-b907-3400029e8b0c | 4842.5400390625 | U6492 |
| 2 | Beauty | 1200.00 | 500 | 08c8ec42-4f03-4ce0-b8bc-27ee40ce5c91 | 4842.5400390625 | U2164 |
| 3 | Home | 3500.00 | 300 | 095cb327-5449-475c-8a54-4206adabe4b4 | 4842.5400390625 | U7130 |
| 4 | Clothing | 1800.00 | 800 | 0b204a3c-dae5-464d-89f9-aa5979df32fb | 4842.5400390625 | U1386 |
| 5 | Books | 550.00 | 900 | 0bd66f36-10ba-41e0-9d51-1d96aa10f914 | 4842.5400390625 | U1693 |
| 6 | Electronics | 15000.00 | 200 | 0c7eb511-c1c6-4d53-84e9-89dfdf7d90b | 4842.5400390625 | U3044 |


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77 RIGHT JOIN product_details pd
78 ON et.product_category = pd.product_category;
79
80 --c.Write subqueries
81 SELECT *
82 FROM ecommerce_transactions_dataset
83 WHERE user_id IN (
84     SELECT user_id
85     FROM ecommerce_transactions_dataset
86     GROUP BY user_id
87     HAVING SUM(transaction_amount) > 3400
88 );
89

```

9 %

Results Messages

| transaction_id | user_id | product_category | payment_method | transaction_amount | purchase_date | delivery_status |
|--------------------------------------|---------|------------------|----------------|--------------------|---------------|-----------------|
| 0e6cde62-ee8b-44a8-8a9c-c709f9cc149d | U1048 | Electronics | COD | 4842.5400390625 | 2023-09-06 | Delivered |
| 2ffe0a0c-49d2-4bc3-af4c-cd5259a471b4 | U1066 | Beauty | UPI | 4842.5400390625 | 2024-11-30 | Delivered |
| f5a57cd3-67f4-4b2d-8a8f-ce2d2b2f1ffb | U1087 | Home | UPI | 4842.5400390625 | 2023-07-17 | Cancelled |
| 607b92a8-024c-4e09-98bd-33f8fdaeea3c | U1118 | Beauty | UPI | 4842.5400390625 | 2023-06-16 | Returned |
| 2ce927fe-5ebf-4aed-8e8b-f9111fa059d2 | U1122 | Books | Credit Card | 4842.5400390625 | 2023-12-25 | Returned |
| 4ae237a4-91af-46a0-9df9-9bd45b2ac1b9 | U1148 | Clothing | Credit Card | 4842.5400390625 | 2023-12-31 | Returned |
| e9dfac9a-fb5f-4878-95a2-c5249fb50a93 | U1151 | Home | Credit Card | 4842.5400390625 | 2025-02-07 | Delivered |
| a6f2eae5-18ca-4338-9752-a8351b71bc94 | U1162 | Beauty | COD | 4842.5400390625 | 2023-11-28 | Delivered |
| 1ef75ce9-add9-4702-97cd-cd8bf20b691f | U1164 | Electronics | Credit Card | 4842.5400390625 | 2024-08-09 | Cancelled |
| 7cfb7e19-e7e4-4117-8789-631a418369fe | U1172 | Electronics | Debit Card | 4842.5400390625 | 2024-10-21 | Cancelled |
| 8dc095df-ccf0-4dc1-82be-4bc22df48b7d | U1203 | Beauty | COD | 4842.5400390625 | 2025-04-12 | Shipped |
| a5f052f4-5440-427c-ab12-283faac2831a | U1223 | Books | Credit Card | 4842.5400390625 | 2024-01-25 | Delivered |
| 77475993-7bd0-490a-a24e-64070befaee1 | U1229 | Beauty | Net Banking | 4842.5400390625 | 2024-03-14 | Returned |
| d0353855-c5cd-4ec9-a5b7-fcf6e55687aa | U1261 | Books | Credit Card | 4842.5400390625 | 2024-10-18 | Shipped |
| 8f4962f6-7c62-44d6-aa15-f2415b7f8c16 | U1282 | Clothing | Net Banking | 4842.5400390625 | 2024-01-28 | Returned |
| 76617e86-47bc-4560-a86c-541a01cdc31f | U1314 | Home | Credit Card | 4842.5400390625 | 2023-12-10 | Shipped |
| 0670-60c-0604-4534-030c-0635-44c-004 | U1317 | Beauty | COD | 4842.5400390625 | 2025-02-12 | Delivered |

```

81 SELECT *
82 FROM ecommerce_transactions_dataset
83 WHERE user_id IN (
84     SELECT user_id
85     FROM ecommerce_transactions_dataset
86     GROUP BY user_id
87     HAVING SUM(transaction_amount) > 3400
88 );
89 --d.Use aggregate functions (SUM, AVG)
90 SELECT
91     product_category,
92     SUM(transaction_amount) AS total_sales,
93     AVG(transaction_amount) AS avg_order_value
94 FROM ecommerce_transactions_dataset
95 GROUP BY product_category;

```

%
Results Messages

| product_category | total_sales | avg_order_value |
|------------------|------------------|-----------------|
| Beauty | 416458.443359375 | 4842.5400390625 |
| Books | 426143.5234375 | 4842.5400390625 |
| Clothing | 513309.244140625 | 4842.5400390625 |
| Electronics | 445513.68359375 | 4842.5400390625 |
| Home | 377718.123046875 | 4842.5400390625 |

```

90 SELECT
91     product_category,
92     SUM(transaction_amount) AS total_sales,
93     AVG(transaction_amount) AS avg_order_value
94 FROM ecommerce_transactions_dataset
95 GROUP BY product_category;
96
97 --e.Create views for analysis
98 SELECT
99     user_id,
100     SUM(transaction_amount) AS total_spent
101 FROM ecommerce_transactions_dataset
102 GROUP BY user_id
103 HAVING SUM(transaction_amount) > 2000;

```

%
Results Messages

| user_id | total_spent |
|---------|-----------------|
| U1172 | 4842.5400390625 |
| U1203 | 4842.5400390625 |
| U1223 | 4842.5400390625 |
| U1229 | 4842.5400390625 |
| U1261 | 4842.5400390625 |
| U1282 | 4842.5400390625 |
| U1314 | 4842.5400390625 |
| U1317 | 4842.5400390625 |
| U1324 | 4842.5400390625 |
| U1343 | 4842.5400390625 |
| U1350 | 4842.5400390625 |
| U1354 | 4842.5400390625 |
| U1364 | 4842.5400390625 |
| U1386 | 4842.5400390625 |
| U1402 | 4842.5400390625 |
| U1403 | 4842.5400390625 |
| U1410 | 4842.5400390625 |