Shopping_ behaviour_ queries

1.Queries

#BASIC QUERIES

#View all customer shopping records

SELECT * FROM project1.`shopping behavior`;

Result

Customer ID	Age	Gender	Item Purchased	Category	Purchase Amount (USD)	Location	Size	Color
1	55	Male	Blouse	Clothing	53	Kentucky	L	Gray
2	19	Male	Sweater	Clothing	64	Maine	L	Maroon
3	50	Male	Jeans	Clothing	73	Massachusetts	S	Maroon
4	21	Male	Sandals	Footwear	90	Rhode Island	M	Maroon
5	45	Male	Blouse	Clothing	49	Oregon	M	Turquoise
6	46	Male	Sneakers	Footwear	20	Wyoming	M	White

2.Queries

#show all Total number of purchases

SELECT COUNT(*) AS total_purchases

FROM project1.`shopping behavior`;

Result

	total_purchases
▶	3900

3.Queries

#what are Total sales amount?

SELECT SUM(`Purchase Amount (USD)`) AS total_sales

FROM project1.`shopping behavior`;

Result

	total_sales
▶	233081

4.Queries

#what is Average purchase amount?

SELECT AVG(`Purchase Amount (USD)`) AS avg_purchase

FROM project1.`shopping behavior`;

Result

	avg_purchase
▶	59.7644

5.Queries

#how many Distinct number of customers?

SELECT COUNT(DISTINCT `Customer ID`) AS total_customers

FROM project1.`shopping behavior`;

Result

	total_customers
▶	3900

6.Queries

#FILTERING (WHERE):

#how many are Purchases by subscribed customers?

SELECT *

FROM project1.`shopping behavior`

WHERE `Subscription Status` = 'Yes';

Result

Customer ID	Age	Gender	Item Purchased	Category	Purchase Amount (USD)	Location	Size	Color
1	55	Male	Blouse	Clothing	53	Kentucky	L	Gray
2	19	Male	Sweater	Clothing	64	Maine	L	Maroon
3	50	Male	Jeans	Clothing	73	Massachusetts	S	Maroon
4	21	Male	Sandals	Footwear	90	Rhode Island	M	Maroon
5	45	Male	Blouse	Clothing	49	Oregon	M	Turquoise
6	46	Male	Sneakers	Footwear	20	Wyoming	M	White

Season	Review Rating	Subscription Status	Discount Applied	Previous Purchases	Payment Method	Frequency of Purchases
Winter	3.1	Yes	Yes	14	Venmo	Fortnightly
Winter	3.1	Yes	Yes	2	Cash	Fortnightly
Spring	3.1	Yes	Yes	23	Credit Card	Weekly
Spring	3.5	Yes	Yes	49	PayPal	Weekly
Spring	2.7	Yes	Yes	31	PayPal	Annually
Summer	2.9	Yes	Yes	14	Venmo	Weekly

7.Queries

#Customers with discount applied?

SELECT *

FROM project1.`shopping behavior`

WHERE `Discount Applied` = 'Yes';

Result

Customer ID	Age	Gender	Item Purchased	Category	Purchase Amount (USD)	Location	Size	Color
1	55	Male	Blouse	Clothing	53	Kentucky	L	Gray
2	19	Male	Sweater	Clothing	64	Maine	L	Maroon
3	50	Male	Jeans	Clothing	73	Massachusetts	S	Maroon
4	21	Male	Sandals	Footwear	90	Rhode Island	M	Maroon
5	45	Male	Blouse	Clothing	49	Oregon	M	Turquoise
6	46	Male	Sneakers	Footwear	20	Wyoming	M	White

Season	Review Rating	Subscription Status	Discount Applied	Previous Purchases	Payment Method	Frequency of Purchases
Winter	3.1	Yes	Yes	14	Venmo	Fortnightly
Winter	3.1	Yes	Yes	2	Cash	Fortnightly
Spring	3.1	Yes	Yes	23	Credit Card	Weekly
Spring	3.5	Yes	Yes	49	PayPal	Weekly
Spring	2.7	Yes	Yes	31	PayPal	Annually
Summer	2.9	Yes	Yes	14	Venmo	Weekly

8.Queries

#which Purchases in Winter season?

SELECT *

FROM project1.`shopping behavior`

WHERE Season = 'Winter';

Result

Customer ID	Age	Gender	Item Purchased	Category	Purchase Amount (USD)	Location	Size	Color
1	55	Male	Blouse	Clothing	53	Kentucky	L	Gray
2	19	Male	Sweater	Clothing	64	Maine	L	Maroon
8	27	Male	Shorts	Clothing	34	Louisiana	L	Charcoal
12	30	Male	Shorts	Clothing	68	Hawaii	S	Olive
13	61	Male	Coat	Outerwear	72	Delaware	M	Gold
15	64	Male	Coat	Outerwear	53	New York	L	Teal

Season	Review Rating	Subscription Status	Discount Applied	Previous Purchases	Payment Method	Frequency of Purchases
Winter	3.1	Yes	Yes	14	Venmo	Fortnightly
Winter	3.1	Yes	Yes	2	Cash	Fortnightly
Winter	3.2	Yes	Yes	19	Credit Card	Weekly
Winter	4.9	Yes	Yes	10	Bank Transfer	Fortnightly
Winter	4.5	Yes	Yes	37	Venmo	Fortnightly
Winter	4.7	Yes	Yes	34	Debit Card	Weekly

9.Queries

#what is High-value purchases (above $100) from customer?

SELECT *

FROM project1.`shopping behavior`

WHERE `Purchase Amount (USD)` >90;

Result

Customer ID	Age	Gender	Item Purchased	Category	Purchase Amount (USD)	Location	Size	Color
9	26	Male	Coat	Outerwear	97	West Virginia	L	Silver
29	54	Male	Handbag	Accessories	94	North Carolina	M	Gray
35	36	Male	T-shirt	Clothing	91	North Dakota	L	Violet
43	20	Male	Coat	Outerwear	100	Tennessee	M	Beige
55	47	Male	Coat	Outerwear	94	New Mexico	M	Brown
67	31	Male	Blouse	Clothing	94	Pennsylvania	S	Magenta

Season	Review Rating	Subscription Status	Discount Applied	Previous Purchases	Payment Method	Frequency of Purchases
Summer	2.6	Yes	Yes	8	Venmo	Annually
Fall	4.4	Yes	Yes	41	PayPal	Every 3 Months
Spring	4.6	Yes	Yes	38	PayPal	Quarterly
Spring	4.1	Yes	Yes	15	PayPal	Annually
Summer	4.2	Yes	Yes	35	Debit Card	Bi-Weekly
Winter	4.7	Yes	Yes	3	Venmo	Every 3 Months

10.Queries

#GROUP BY ANALYSIS

#Sales by category

SELECT Category,

    SUM(`Purchase Amount (USD)`) AS category_sales

FROM project1.`shopping behavior`

GROUP BY Category;

Result

Category	category_sales
Clothing	104264
Footwear	36093
Outerwear	18524
Accessories	74200

11.Queries

#What is Revenue contribution by location?

SELECT Location,

    SUM(`Purchase Amount (USD)`) AS location_sales

FROM project1.`shopping behavior`

GROUP BY Location;

Result

Location	location_sales
Kentucky	4402
Maine	4388
Massachusetts	4384
Rhode Island	3871
Oregon	4243
Wyoming	4309
Montana	5784
Louisiana	4848

12.Queries

#which is Average rating by category?

SELECT Category,

AVG(`Review Rating`) AS avg_rating

FROM project1.`shopping behavior`

GROUP BY Category;

Result

Category	avg_rating
Clothing	3.7231433506044884
Footwear	3.79065108514190555
Outerwear	3.746913580246914
Accessories	3.7686290322580676

13.Queries

#which Payment method usage count?

SELECT `Payment Method`,

COUNT(*) AS usage_count

FROM project1.`shopping behavior`

GROUP BY `Payment Method`;

Result

Payment Method	usage_count
Venmo	634
Cash	670
Credit Card	671
PayPal	677
Bank Transfer	612
Debit Card	636

14.Queries

#Subscription vs average spending?

SELECT `Subscription Status`,

    AVG(`Purchase Amount (USD)`) AS avg_spend

FROM project1.`shopping behavior`

GROUP BY `Subscription Status`;

Result

Subscription Status	avg_spend
Yes	59.4919
No	59.8651

15.Queries

#ORDER BY + Limit

#what are Top 5 highest purchases?

SELECT *

FROM project1.`shopping behavior`

ORDER BY `Purchase Amount (USD)` DESC

LIMIT 5;

Result

Customer ID	Age	Gender	Item Purchased	Category	Purchase Amount (USD)	Location	Size	Color
2972	30	Female	Handbag	Accessories	100	Utah	L	Yellow
3322	32	Female	Coat	Outerwear	100	Maine	S	Charcoal
3029	62	Female	Dress	Clothing	100	California	L	Charcoal
2072	69	Male	Jacket	Outerwear	100	South Carolina	S	Yellow
2215	50	Male	Belt	Accessories	100	Idaho	L	Gold

Season	Review Rating	Subscription Status	Discount Applied	Previous Purchases	Payment Method	Frequency of Purchases
Fall	3.9	No	No	9	PayPal	Every 3 Months
Winter	4.3	No	No	3	Venmo	Annually
Summer	3	No	No	7	PayPal	Every 3 Months
Fall	4.8	No	No	37	PayPal	Quarterly
Fall	4.1	No	No	20	Debit Card	Weekly

16.Queries

#Top 5 customers by total spending?

SELECT `Customer ID`,

    SUM(`Purchase Amount (USD)`) AS total_spent

FROM project1.`shopping behavior`

GROUP BY `Customer ID`

ORDER BY total_spent DESC

LIMIT 5;

Result

Customer ID	total_spent
205	100
43	100
96	100
194	100
244	100

17.Queries

#ADVANCED QUERIES

#Repeat customers (more than 1 previous purchase)

SELECT DISTINCT `Customer ID`

FROM project1.`shopping behavior`

WHERE `Previous Purchases` > 1;

Result

Customer ID
1
2
3
4
5
6
7

18.Queries

#Customers who spend more than average (SUBQUERY)

SELECT *

FROM project1.`shopping behavior`

WHERE `Purchase Amount (USD)` >

   (SELECT AVG(`Purchase Amount (USD)`)

   FROM project1.`shopping behavior`);

Result

Customer ID	Age	Gender	Item Purchased	Category	Purchase Amount (USD)	Location	Size	Color
2	19	Male	Sweater	Clothing	64	Maine	L	Maroon
3	50	Male	Jeans	Clothing	73	Massachusetts	S	Maroon
4	21	Male	Sandals	Footwear	90	Rhode Island	M	Maroon
7	63	Male	Shirt	Clothing	85	Montana	M	Gray
9	26	Male	Coat	Outerwear	97	West Virginia	L	Silver
12	30	Male	Shorts	Clothing	68	Hawaii	S	Olive

Season	Review Rating	Subscription Status	Discount Applied	Previous Purchases	Payment Method	Frequency of Purchases
Winter	3.1	Yes	Yes	2	Cash	Fortnightly
Spring	3.1	Yes	Yes	23	Credit Card	Weekly
Spring	3.5	Yes	Yes	49	PayPal	Weekly
Fall	3.2	Yes	Yes	49	Cash	Quarterly
Summer	2.6	Yes	Yes	8	Venmo	Annually
Winter	4.9	Yes	Yes	10	Bank Transfer	Fortnightly

19.Queries

#Purchase type based on amount (CASE)?

SELECT `Customer ID`,

   `Purchase Amount (USD)`,

   CASE

     WHEN `Purchase Amount (USD)` >= 150 THEN 'High Value'

     WHEN `Purchase Amount (USD)` >= 75 THEN 'Medium Value'

     ELSE 'Low Value'

   END AS purchase_category

FROM project1.`shopping behavior`;

Result

Customer ID	Purchase Amount (USD)	purchase_category
1	53	Low Value
2	64	Low Value
3	73	Low Value
4	90	Medium Value
5	49	Low Value
6	20	Low Value
7	85	Medium Value

20.Queries

#Average purchase amount per category (Window Avg)

SELECT

   Category,

   `Purchase Amount (USD)`,

   AVG(`Purchase Amount (USD)`) OVER (PARTITION BY Category) AS avg_category_sales

FROM project1.`shopping behavior`;

Result

Category	Purchase Amount (USD)	avg_category_sales
Accessories	50	59.8387
Accessories	62	59.8387
Accessories	47	59.8387
Accessories	96	59.8387
Accessories	77	59.8387
Accessories	33	59.8387
Accessories	24	59.8387

21.Queries

#Compare customer spend to overall average

SELECT

   `Customer ID`,

   `Purchase Amount (USD)`,

   `Purchase Amount (USD)` -

   AVG(`Purchase Amount (USD)`) OVER () AS diff_from_avg

FROM project1.`shopping behavior`;

Result

Customer ID	Purchase Amount (USD)	diff_from_avg
1	53	-6.7644
2	64	4.2356
3	73	13.2356
4	90	30.2356
5	49	-10.7644
6	20	-39.7644
7	85	25.2356

Customer ID	Purchase Amount (USD)	diff_from_avg
1	53	-6.7644
2	64	4.2356
3	73	13.2356
4	90	30.2356
5	49	-10.7644
6	20	-39.7644
7	85	25.2356