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Advanced SQL

BrightLight Data Analytics Coding Practical 3

Question 1:

The screenshot shows the BrightLight Data Analytics interface. The left sidebar contains a 'Databases' tab with a tree view of databases including 'SALES_RETAIL_BRIGHT_COFFEE', 'BRIGHTLIGHT_SHOPPING_CENTRE', 'BRIGHT_COFFEE_ANALYSIS', 'BRIGHT_COFFEE_SHOP', 'BRIGHT_DATASET', 'BRIGHT_SHOPPING_ANALYSIS', 'SALES', 'SNOWFLAKE', 'SNOWFLAKE_LEARNING_DB', and 'SNOWFLAKE_SAMPLE_DATA'. The main editor displays a SQL query for Question 1:

```
1 SELECT * FROM BRIGHTLIGHT_SHOPPING_CENTRE.SALES.SHOPPING_TRENDS;
2
3 1. Find all records where Size is missing and the purchase_amount is greater than
4 50.
5 Expected Columns: Customer ID, Size, purchase_amount, Item
6 Purchased
7
8 SELECT Customer_ID, Size, purchase_amount, Item_Purchased
9 FROM BrightLight-Shopping-Centre.Sales.Shopping_Trends
10 WHERE Size IS NULL AND purchase_amount > 50;
11
```

The 'Results' tab shows a table with 6 rows and 5 columns: CUSTOMER_ID, SIZE, PURCHASE_AMOUNT, and ITEM_PURCHASED. The data is as follows:

	CUSTOMER_ID	SIZE	PURCHASE_AMOUNT	ITEM_PURCHASED
1	11	null	74.0	Handbag
2	15	null	54.0	Jeans
3	22	null	88.0	Shirt
4	32	null	54.0	Blouse
5	62	null	57.0	Blouse
6	73	null	65.0	Sandals

The 'Query Details' panel on the right shows a query duration of 153ms and 22 rows.

Question 2:

The screenshot shows the BrightLight Data Analytics interface. The left sidebar is the same as in Question 1. The main editor displays a SQL query for Question 2:

```
6 Purchased
7
8 SELECT Customer_ID, Size, purchase_amount, Item_Purchased
9 FROM BrightLight-Shopping-Centre.Sales.Shopping_Trends
10 WHERE Size IS NULL AND purchase_amount > 50;
11
12 2. List the total number of purchases grouped by Season, treating NULL values as
13 a 'Unknown Season'.
14 Expected Columns: Season, Total Purchases
15
16 SELECT COALESCE(Season, 'Unknown Season') AS Season,
17 COUNT(*) AS Total_Purchases
18 FROM BrightLight-Shopping-Centre.Sales.Shopping_Trends
19 GROUP BY COALESCE(Season, 'Unknown Season');
20
```

The 'Results' tab shows a table with 5 rows and 2 columns: SEASON and TOTAL_PURCHASES. The data is as follows:

	SEASON	TOTAL_PURCHASES
1	Summer	65
2	Winter	80
3	Fall	55
4	Spring	73
5	Unknown Season	27

The 'Query Details' panel on the right shows a query duration of 278ms and 5 rows.

Question 3:

Practice | Brightlearn DAT Practical 1 | Brightlight DAT Practical 2 | Brightlight DAT Practical 3

ACCOUNTADMIN | COMPUTE_WH (X-Small) | Share

Databases | Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected | Settings

Open in Workspaces

```

15 SELECT COALESCE(Season, 'Unknown Season') AS Season,
16 COUNT(*) AS Total_Purchases
17 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
18 GROUP BY COALESCE(Season, 'Unknown Season');
19
20 -----
21 3. Count how many customers used each Payment Method, treating NULLs as
22 'Not Provided'.
23 Expected Columns: Payment Method, Customer Count
24
25 SELECT COALESCE(Payment_Method, 'Not Provided') AS Payment_Method,
26 COUNT(*) AS Customer_Count
27 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
28 GROUP BY COALESCE(Payment_Method, 'Not Provided');
29

```

Results | Chart

	PAYMENT_METHOD	CUSTOMER_COUNT
1	Credit Card	44
2	Not Provided	30
3	PayPal	51
4	Debit Card	42
5	Cash	42
6	Bank Transfer	38

Query Details

Query duration: 84ms

Rows: 7

Query ID: 01bfe233-000c-b21f-D0...

Show more

Question 4:

Practice | Brightlearn DAT Practical 1 | Brightlight DAT Practical 2 | Brightlight DAT Practical 3

ACCOUNTADMIN | COMPUTE_WH (X-Small) | Share

Databases | Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected | Settings

Open in Workspaces

```

24 SELECT COALESCE(Payment_Method, 'Not Provided') AS Payment_Method,
25 COUNT(*) AS Customer_Count
26 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
27 GROUP BY COALESCE(Payment_Method, 'Not Provided');
28
29 -----
30 4. Show customers where Promo Code Used is NULL and Review Rating is below
31 3.0.
32 Expected Columns: Customer ID, Promo Code Used, Review Rating, Item Purchased
33
34
35 SELECT Customer_ID, Promo_Code_Used, Review_Rating, Item_Purchased
36 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
37 WHERE Promo_Code_Used IS NULL AND Review_Rating < 3.0;
38

```

Results | Chart

	CUSTOMER_ID	PROMO_CODE_USED	REVIEW_RATING	ITEM_PURCHASED
1	21	null	2.5	Jeans
2	38	null	2.6	Jeans
3	61	null	2.5	Jeans
4	80	null	2.6	Sneakers
5	125	null	2.8	Sneakers
6	128	null	2.5	Shoes

Query Details

Query duration: 135ms

Rows: 8

Query ID: 01bfe234-000c-b209-D0...

Show more

Question 5:

Practice | Brightlearn DAT Practical 1 | Brightlight DAT Practical 2 | Brightlight DAT Practical 3

ACCOUNTADMIN | COMPUTE_WH (X-Small) | Share

Databases | Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected | Settings

Open in Workspaces

```

33 SELECT Customer_ID, Promo_Code_Used, Review_Rating, Item_Purchased
34 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
35 WHERE Promo_Code_Used IS NULL AND Review_Rating < 3.0;
36
37 -----
38 5. Group customers by Shipping
39 Type, and return the average purchase_amount, treating missing values as 0.
40 Expected Columns: Shipping Type, Average purchase_amount
41
42
43 SELECT Shipping_Type,
44 AVG(COALESCE(purchase_amount, 0)) AS Average_purchase_amount
45 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
46 GROUP BY Shipping_Type;
47

```

Results | Chart

	SHIPPING_TYPE	AVERAGE_PURCHASE_AMOUNT
1	Standard	47.6666667
2	Express	53.4545455
3	Store Pickup	55.3333333
4	null	52.7037037
5	Free Shipping	50.2142857
6	Next Day Air	54.8666667

Query Details

Query duration: 107ms

Rows: 6

Query ID: 01bfe236-000c-b21d-D0...

Show more

Question 6:

Practice | Brightlearn DAT Practical 1 | Brightlight DAT Practical 2 | Brightlight DAT Practical 3

ACCOUNTADMIN • COMPUTE_WH (X-Small) | Share

Databases | Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected | Settings

```

44      AVG(COALESCE(purchase_amount, 0)) AS Average_purchase_amount
45 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
46 GROUP BY Shipping_Type;
47
48 -----
49 6. Display the number of purchases per Location only for those with more than
50 5 purchases and no NULL Payment Method.
51 Expected Columns: Location, Total Purchases
52
53 SELECT Location,
54        COUNT(*) AS Total_Purchases
55 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
56 WHERE Payment_Method IS NOT NULL
57 GROUP BY Location
58 HAVING COUNT(*) > 5;

```

Results | Chart

	LOCATION	# TOTAL_PURCHASES
1	Maine	41
2	Kentucky	30
3	null	24
4	New York	31
5	Oregon	30
6	Rhode Island	29

Query Details

Query duration: 97ms

Rows: 9

Query ID: 01bfe237-000c-b21f-00...

Show more

Question 7:

Practice | Brightlearn DAT Practical 1 | Brightlight DAT Practical 2 | Brightlight DAT Practical 3

ACCOUNTADMIN • COMPUTE_WH (X-Small) | Share

Databases | Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected | Settings

```

59 7. Create a column Spender Category that classifies customers using CASE:
60 'High' if amount > 80, 'Medium' if BETWEEN 50 AND 80,
61 'Low' otherwise. Replace NULLs in purchase_amount with 0.
62 Expected Columns: Customer ID, purchase_amount, Spender Category
63
64
65 SELECT Customer_ID,
66        COALESCE(purchase_amount, 0) AS purchase_amount,
67        CASE
68          WHEN COALESCE(purchase_amount, 0) > 80 THEN 'High'
69          WHEN COALESCE(purchase_amount, 0) BETWEEN 50 AND 80 THEN 'Medium'
70          ELSE 'Low'
71        END AS Spender_Category
72 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends;
73

```

Results | Chart

	# CUSTOMER_ID	# PURCHASE_AMOUNT	SPENDER_CATEGORY
1	1	20.0	Low
2	2	21.0	Low
3	3	27.0	Low
4	4	45.0	Low
5	5	80.0	Medium
6	6	82.0	High

Query Details

Query duration: 64ms

Rows: 300

Query ID: 01bfe238-000c-b21f-00...

Show more

Question 8:

Practice | Brightlearn DAT Practical 1 | Brightlight DAT Practical 2 | Brightlight DAT Practical 3

ACCOUNTADMIN • COMPUTE_WH (X-Small) | Share

Databases | Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected | Settings

```

69      WHEN COALESCE(purchase_amount, 0) BETWEEN 50 AND 80 THEN 'Medium'
70      ELSE 'Low'
71    END AS Spender_Category
72 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends;
73
74 -----
75 8. Find customers who have no Previous
76 Purchases value but whose Color is not NULL.
77 Expected Columns: Customer ID, Color, Previous Purchases
78
79 SELECT Customer_ID, Color, Previous_Purchases
80 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
81 WHERE Previous_Purchases IS NULL AND Color IS NOT NULL;
82
83

```

Results | Chart

	# CUSTOMER_ID	COLOR	# PREVIOUS_PURCHASES
1	8	Green	null
2	21	Yellow	null
3	25	White	null
4	37	Maroon	null
5	40	Gray	null
6	43	Black	null

Query Details

Query duration: 75ms

Rows: 38

Query ID: 01bfe23a-000c-b21d-00...

Show more

Question 9:

Practice | Brightlearn DAT Practical 1 | Brightlight DAT Practical 2 | Brightlight DAT Practical 3

ACCOUNTADMIN | COMPUTE_WH (X-Small) | Share

Databases | Worksheets

Pinned (1)

- SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected | Settings

```

78 SELECT Customer_ID, Color, Previous_Purchases
79 FROM BrightLight.Shopping_Centre.Sales.Shopping_Trends
80 WHERE Previous_Purchases IS NULL AND Color IS NOT NULL;
81
82 -----
83 9. Group records by Frequency of
84 Purchases and show the total amount spent per group, treating NULL frequen
85 cies as 'Unknown'.
86 Expected Columns: Frequency of Purchases, Total purchase_amount
87
88 SELECT COALESCE(Frequency_of_Purchases, 'Unknown') AS Frequency_of_Purchases,
89 SUM(purchase_amount) AS Total_purchase_amount
90 FROM BrightLight.Shopping_Centre.Sales.Shopping_Trends
91 GROUP BY COALESCE(Frequency_of_Purchases, 'Unknown');
92

```

Results | Chart

	FREQUENCY_OF_PURCHASES	TOTAL_PURCHASE_AMOUNT
1	Every 3 Months	1749.0
2	Weekly	2184.0
3	Bi-Weekly	2099.0
4	Monthly	1780.0
5	Fortnightly	2033.0
6	Annually	1765.0

Query Details

Query duration: 84ms

Rows: 8

Query ID: 01bfe23b-000c-b21f-00...

Show more

Question 10:

Practice | Brightlearn DAT Practical 1 | Brightlight DAT Practical 2 | Brightlight DAT Practical 3

ACCOUNTADMIN | COMPUTE_WH (X-Small) | Share

Databases | Worksheets

Pinned (1)

- SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected | Settings

```

87 SELECT COALESCE(Frequency_of_Purchases, 'Unknown') AS Frequency_of_Purchases,
88 SUM(purchase_amount) AS Total_purchase_amount
89 FROM BrightLight.Shopping_Centre.Sales.Shopping_Trends
90 GROUP BY COALESCE(Frequency_of_Purchases, 'Unknown');
91
92 -----
93 10. Display a list of all Category values with the number of times each was purcha
94 sed, excluding rows where Category is NULL.
95 Expected Columns: Category, Total Purchases
96
97 SELECT Category,
98 COUNT(*) AS Total_Purchases
99 FROM BrightLight.Shopping_Centre.Sales.Shopping_Trends
100 WHERE Category IS NOT NULL
101 GROUP BY Category;
102

```

Results | Chart

	CATEGORY	TOTAL_PURCHASES
1	Outerwear	60
2	Footwear	70
3	Clothing	59
4	Accessories	78

Query Details

Query duration: 97ms

Rows: 4

Query ID: 01bfe23c-000c-b209-00...

Show more

Question 11:

Practice | Brightlearn DAT Practical 1 | Brightlight DAT Practical 2 | Brightlight DAT Practical 3

ACCOUNTADMIN | COMPUTE_WH (X-Small) | Share

Databases | Worksheets

Pinned (1)

- SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected | Settings

```

100 GROUP BY Category;
101 -----
102 11. Return the top
103 5 Locations with the highest total purchase_amount, replacing NULLs in amount
104 with 0.
105 Expected Columns: Location, Total purchase_amount
106
107 SELECT Location,
108 SUM(COALESCE(purchase_amount, 0)) AS Total_purchase_amount
109 FROM BrightLight.Shopping_Centre.Sales.Shopping_Trends
110 GROUP BY Location
111 ORDER BY Total_purchase_amount DESC
112 LIMIT 5;
113
114

```

Results | Chart

	LOCATION	TOTAL_PURCHASE_AMOUNT
1	Maine	2294.0
2	Florida	1980.0
3	Massachusetts	1899.0
4	Rhode Island	1876.0
5	Kentucky	1798.0

Query Details

Query duration: 91ms

Rows: 5

Query ID: 01bfe23d-000c-b209-00...

Show more

Question 12:

Practice Brightlearn DAT Practical 1 Brightlight DAT Practical 2 Brightlight DAT Practical 3 +

ACCOUNTADMIN COMPUTE_WH (X-Small) Share

Databases Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected Settings

Open in Workspaces

```

111 GROUP BY Location
112 ORDER BY Total_purchase_amount DESC
113 LIMIT 5;
114 -----
115 12.Group customers by Gender and Size, and count how many entries have a NUL
116 L Color.
117 Expected Columns: Gender, Size, Null Color Count
118
119
120
121 SELECT Gender, Size,
122        COUNT(*) AS Null_Color_Count
123 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
124 WHERE Color IS NULL
125 GROUP BY Gender, Size;

```

Results Chart

	GENDER	SIZE	# NULL_COLOR_COUNT
1	Male	null	6
2	Male	M	7
3	Male	L	6
4	Male	S	5
5	Male	XL	5

Query Details

Query duration 89ms

Rows 5

Query ID 01bfe23e-000c-b21d-0...

Show more

Question 13:

Practice Brightlearn DAT Practical 1 Brightlight DAT Practical 2 Brightlight DAT Practical 3 +

ACCOUNTADMIN COMPUTE_WH (X-Small) Share

Databases Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected Settings

Open in Workspaces

```

123 WHERE Color IS NULL
124 GROUP BY Gender, Size;
125 -----
126 13.Identify all Item Purchased where more than 3 purchases had NULL Shipping
127 Type.
128 Expected Columns: Item Purchased, NULL Shipping Type Count
129
130
131 SELECT Item_Purchased,
132        COUNT(*) AS NULL_Shipping_Type_Count
133 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
134 WHERE Shipping_Type IS NULL
135 GROUP BY Item_Purchased
136 HAVING COUNT(*) > 3;
137

```

Results Chart

	ITEM_PURCHASED	# NULL_SHIPPING_TYPE_COUNT
1	null	4
2	Shirt	5
3	Shoes	4

Query Details

Query duration 85ms

Rows 3

Query ID 01bfe23f-000c-b21d-00...

Show more

Question 14:

Practice Brightlearn DAT Practical 1 Brightlight DAT Practical 2 Brightlight DAT Practical 3 +

ACCOUNTADMIN COMPUTE_WH (X-Small) Share

Databases Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected Settings

Open in Workspaces

```

132 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
133 WHERE Shipping_Type IS NULL
134 GROUP BY Item_Purchased
135 HAVING COUNT(*) > 3;
136 -----
137 14. Show a count of how many customers per Payment Method have NULL Review
138 Rating.
139 Expected Columns: Payment Method, Missing Review Rating Count
140
141
142 SELECT Payment_Method,
143        COUNT(*) AS Missing_Review_Rating_Count
144 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
145 WHERE Review_Rating IS NULL
146 GROUP BY Payment_Method;

```

Results Chart

	PAYMENT_METHOD	# MISSING_REVIEW_RATING_COUNT
1	Credit Card	8
2	Cash	4
3	null	2
4	Debit Card	7
5	Venmo	9
6	PayPal	3

Query Details

Query duration 85ms

Rows 2

Query ID 01bfe240-000c-b209-0...

Show more

Question 15:

Practice Brightlearn DAT Practical 1 Brightlight DAT Practical 2 Brightlight DAT Practical 3 +

ACCOUNTADMIN COMPUTE_WH (X-Small) Share

Databases Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected Settings

Open in Workspaces

```

142 COALESCE(*) AS Missing_Review_Rating_Count
143 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
144 WHERE Review_Rating IS NULL
145 GROUP BY Payment_Method;
-----
146
147 15.Group by Category and return the average Review Rating, replacing NULLs with
148 0, and filter only where average is greater than 3.5.
149 Expected Columns: Category, Average Review Rating
150
151 SELECT Category,
152        AVG(COALESCE(Review_Rating, 0)) AS Average_Review_Rating,
153 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
154 GROUP BY Category
155 HAVING AVG(COALESCE(Review_Rating, 0)) > 3.0;
156

```

Results Chart

	Category	Average_Review_Rating
1	Outerwear	3.3083333
2	Footwear	3.1871429
3	null	3.5000000
4	Clothing	3.0152542
5	Accessories	3.2551282

Query Details

Query duration 101ms

Rows 5

Query ID 01bfe257-000c-b21d-0...

Show more

Question 16:

Practice Brightlearn DAT Practical 1 Brightlight DAT Practical 2 Brightlight DAT Practical 3 +

ACCOUNTADMIN COMPUTE_WH (X-Small) Share

Databases Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected Settings

Open in Workspaces

```

154 GROUP BY Category
155 HAVING AVG(COALESCE(Review_Rating, 0)) > 3.5;
156
157 16. List all Colors that are missing (NULL) in at least
158 2 rows and the average Age of customers for those rows.
159 Expected Columns: Color, Average Age
160
161 SELECT Color,
162        AVG(Age) AS Average_Age
163 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
164 WHERE Color IS NULL
165 GROUP BY Color
166 HAVING COUNT(*) >= 2;
167
168

```

Results Chart

	Color	Average_Age
1	null	47.8481538

Query Details

Query duration 83ms

Rows 1

Query ID 01bfe244-000c-b21d-0...

Show more

Question 17:

Practice Brightlearn DAT Practical 1 Brightlight DAT Practical 2 Brightlight DAT Practical 3 +

ACCOUNTADMIN COMPUTE_WH (X-Small) Share

Databases Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

- BRIGHTLIGHT_SHOPPING_CENTRE
- BRIGHT_COFFEE_ANALYSIS
- BRIGHT_COFFEE_SHOP
- BRIGHT_DATASET
- BRIGHT_SHOPPING_ANALYSIS
- SALES
- SNOWFLAKE
- SNOWFLAKE_LEARNING_DB
- SNOWFLAKE_SAMPLE_DATA

No Database selected Settings

Open in Workspaces

```

168 17.Use CASE to create a column Delivery Speed: 'Fast' if Shipping Type is 'Express' or
169 'Next Day Air', 'Slow' if 'Standard',
170 'Other' for all else including NULL. Then count how many customers fall into
171 each category.
172 Expected Columns: Delivery Speed, Customer Count
173
174 SELECT
175     CASE
176     WHEN Shipping_Type IN ('Express', 'Next Day Air') THEN 'Fast'
177     WHEN Shipping_Type = 'Standard' THEN 'Slow'
178     ELSE 'Other'
179     END AS Delivery_Speed,
180     COUNT(*) AS Customer_Count
181 FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
182 GROUP BY

```

Results Chart

	Delivery_Speed	Customer_Count
1	Other	166
2	Fast	89
3	Slow	45

Query Details

Query duration 109ms

Rows 3

Query ID 01bfe245-000c-b209-0...

Show more

182
183
184
185
186
187

```

GROUP BY
CASE
WHEN Shipping_Type IN ('Express', 'Next Day Air') THEN 'Fast'
WHEN Shipping_Type = 'Standard' THEN 'Slow'
ELSE 'Other'
END;

```

Results Chart

	DELIVERY_SPEED	# CUSTOMER_COUNT
1	Other	166
2	Fast	89
3	Slow	45

Query Details

Query duration 109ms

Rows 3

Query ID 01bfe245-000c-b209-0...

Show more

Question 18:

Practice Brightlearn DAT Practical 1 Brightlight DAT Practical 2 Brightlight DAT Practical 3

Databases Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

BRIGHTLIGHT_SHOPPING_CENTRE

BRIGHT_COFFEE_ANALYSIS

BRIGHT_COFFEE_SHOP

BRIGHT_DATASET

BRIGHT_SHOPPING_ANALYSIS

SALES

SNOWFLAKE

SNOWFLAKE_LEARNING_DB

SNOWFLAKE_SAMPLE_DATA

No Database selected Settings

182
183
184
185
186
187
188
189
190
191
192
193
194
195
196

```

GROUP BY
CASE
WHEN Shipping_Type IN ('Express', 'Next Day Air') THEN 'Fast'
WHEN Shipping_Type = 'Standard' THEN 'Slow'
ELSE 'Other'
END;

```

18. Find customers whose purchase_amount is NULL and whose Promo Code Used is 'Yes'.

Expected Columns: Customer ID, purchase_amount, Promo Code Used

```

SELECT Customer_ID, purchase_amount, Promo_Code_Used
FROM BrightLight-Shopping_Centre.Sales.Shopping_Trends
WHERE purchase_amount IS NULL AND Promo_Code_Used = 'Yes';

```

Results Chart

	# CUSTOMER_ID	# PURCHASE_AMOUNT	01 PROMO_CODE_USED
1	13	null	TRUE
2	30	null	TRUE
3	78	null	TRUE
4	95	null	TRUE
5	124	null	TRUE
6	129	null	TRUE

Query Details

Query duration 74ms

Rows 20

Query ID 01bfe247-000c-b209-0...

Show more

Question 19:

Practice Brightlearn DAT Practical 1 Brightlight DAT Practical 2 Brightlight DAT Practical 3

Databases Worksheets

Pinned (1)

SALES_RETAIL_BRIGHT_COFFEE

Search objects

BRIGHTLIGHT_SHOPPING_CENTRE

BRIGHT_COFFEE_ANALYSIS

BRIGHT_COFFEE_SHOP

BRIGHT_DATASET

BRIGHT_SHOPPING_ANALYSIS

SALES

SNOWFLAKE

SNOWFLAKE_LEARNING_DB

SNOWFLAKE_SAMPLE_DATA

No Database selected Settings

200
201
202
203
204
205
206
207
208
209
210
211
212
213
214

```

Review Rating
SELECT
Location,
MAX(COALESCE(Previous_Purchases, 0)) AS Max_Previous_Purchases,
AVG(Review_Rating) AS Average_Review_Rating
FROM
BrightLight-Shopping_Centre.Sales.Shopping_Trends
GROUP BY
Location
HAVING
AVG(Review_Rating) > 3.5;

```

20. Show customers who have a NULL Shipinpe

Results Chart

	LOCATION	# MAX_PREVIOUS_PURCHASES	# AVERAGE_REVIEW_RATING
1	Rhode Island	50.0	3.7428571
2	Kentucky	46.0	3.7107143
3	Texas	47.0	3.5523810
4	Massachusetts	47.0	3.6580645
5	null	50.0	3.5956522
6	Oregon	50.0	3.6133333
7	New York	49.0	3.6280000

Query Details

Query duration 89ms

Rows 9

Query ID 01bfe260-000c-b21f-00...

Show more

Question 20:

The screenshot displays the Databricks workspace interface. On the left is a sidebar with navigation icons and a file explorer showing a project structure with folders like 'BRIGHTLIGHT_SHOPPING_CENTRE' and 'SALES'. The main area is divided into a top toolbar with tabs for 'Practice', 'Brightlearn DAT PRACTICAL 1', 'Brightlight DAT PRACTICAL 2', and 'Brightlight DAT PRACTICAL 3', and a bottom toolbar with 'Results' and 'Chart' views. The central pane shows a SQL query in a code editor, and the bottom pane displays the query results in a table format. A 'Query Details' sidebar on the right shows the query ID and duration.

Query:

```

205         AVG(Review_Rating) AS Average_Review_Rating
206     FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
207     GROUP BY Location
208     HAVING AVG(Review_Rating) > 4.0;
209
210     -----
211     20.Show customers who have a NULL Shipping
212     Type but made a purchase in the range of 30 to 70 USD.
213     Expected Columns: Customer ID, Shipping
214     Type, purchase_amount, Item Purchased
215
216     SELECT Customer_ID, Shipping_Type, purchase_amount, Item_Purchased
217     FROM BrightLight_Shopping_Centre.Sales.Shopping_Trends
218     WHERE Shipping_Type IS NULL AND purchase_amount BETWEEN 30 AND 70;
219
  
```

Results:

	# CUSTOMER_ID	SHIPPING_TYPE	# PURCHASE_AMOUNT	ITEM_PURCHASED
1	15	null	54.0	Jeans
2	105	null	43.0	Shirt
3	141	null	37.0	Shorts
4	196	null	66.0	Coat
5	213	null	36.0	Shirt
6	235	null	38.0	Sandals

Query Details:

- Query duration: 73ms
- Rows: 7
- Query ID: 01bfe249-000c-b21f-00...
- Show more