

SQL

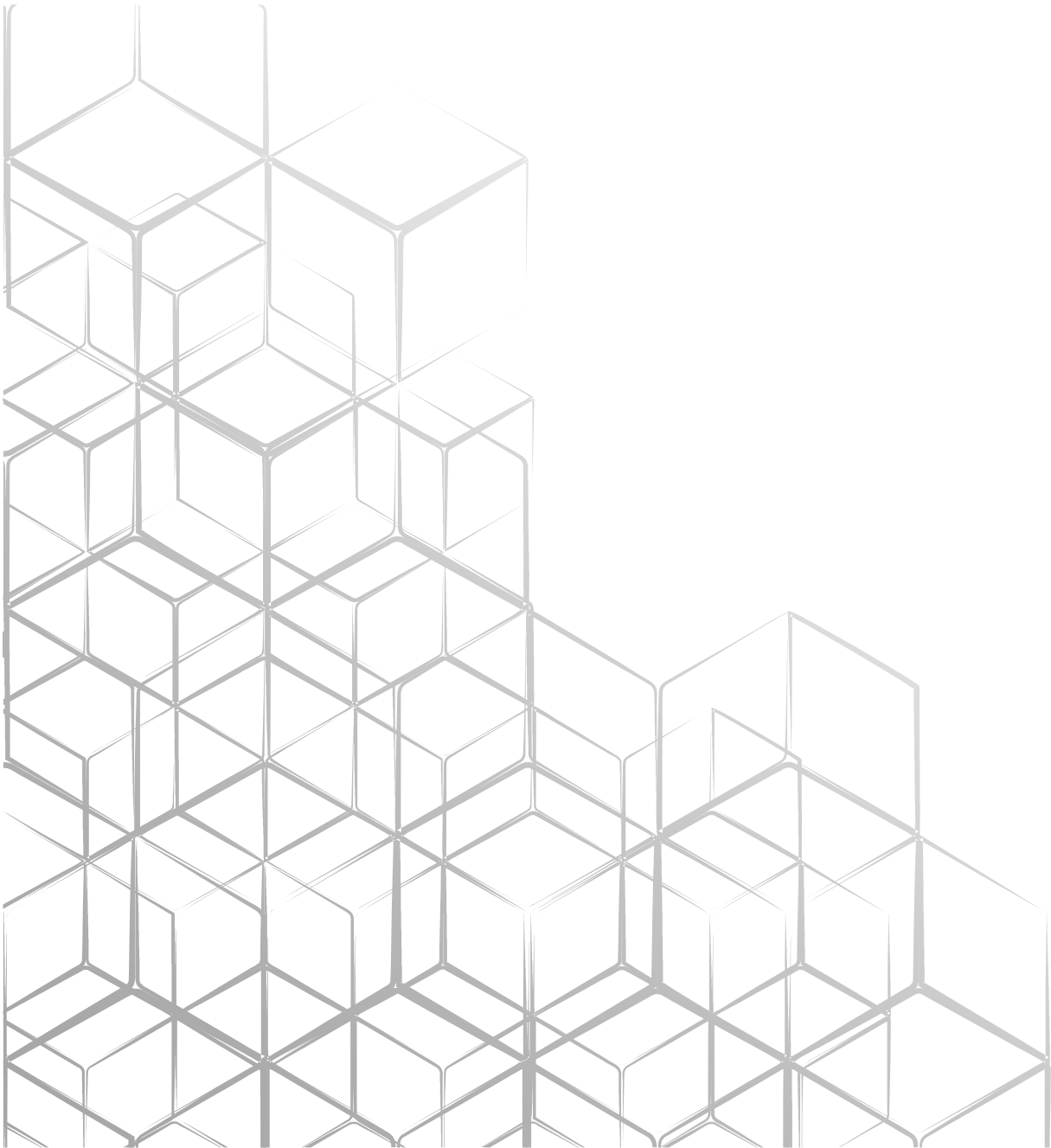


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Problem Statement:

Reliant retail limited is a chain of online stores. As a analyst working for them, they seek answers to the following queries as the results from these queries will help the company in making data-driven decisions that will impact the overall growth of the online retail store. We are expected to solve those queries using the order schema.

Data Description:

The order schema consists of the following tables:

- Address
- Carton
- Online customer
- Order header
- Order items
- Product
- Product class
- Shipper

Each table consists of several columns which we need to use for solving the queries.

Problem 1

Write a query to display customer full name with their title (mr/ms), both first name and last name are in upper case with customer email id, customer creation date and display customer's category after applying below categorization rules:

- If customer creation date year <2005 then category A.
- If customer creation date year >=2005 and <2011 then category B
- If customer creation date year >= 2011 then category C.

Output:

FULL_NAME	CUSTOMER_EMAIL	CUSTOMER_CREATION_DATE	CUSTOMER_CATEGORY
MS.JENNIFER WILSON	jen_w@gmail.com	01-06-1991	CATEGORY A
MR.JACKSON DAVIS	dave_jack@gmail.com	12-06-2001	CATEGORY A
MS.KOMAL CHOUDHARY	ch_komal@yahoo.co.IN	26-06-2002	CATEGORY A
MR.WILFRED JEAN	w_jean@gmail.com	12-01-2006	CATEGORY B
MS.ANITA GOSWAMI	agoswami@gmail.com	13-03-2006	CATEGORY B

Table 1

Problem 2

Write a query to display the following information for the products, which have not been sold: product_id, product_desc, product_quantity_avail, product_price, inventory values(product_quantity_avail*product_price), new_price after applying discount as per below criteria. sort the output with respect to decreasing value of inventory_value.

- if product price > 20,000 then apply 20% discount
- if product price > 10,000 then apply 15% discount
- if product price <= 10,000 then apply 10% discount

Output:

PRODUCT_ID	PRODUCT_DESC	PRODUCT_QUANTITY_AVAIL	PRODUCT_PRICE	INVENTORY_VALUE	NEW_PRICE
99999	Samsung Galaxy Tab 2 P3100	50	19300	965000	16405
99997	Sony Xperia U (Black White)	50	16499	824950	14024.15
99998	Nikon Coolpix L810 Bridge	50	14987	749350	12738.95
99995	LG MS-2049UW Solo Microwave	100	4800	480000	4320
99996	Nokia Asha 200 (Graphite)	100	4070	407000	3663

Table 2

Problem 3

Write a query to display product_class_code, product_class_description, count of product type in each product class, inventory value (p.product_quantity_avail*p.product_price). Information should be displayed for only those product_class_code which have more than 1,00,000 inventory value. Sort the output with respect to the decreasing value of inventory_value.

Output:

PRODUCT_CLASS_CODE	PRODUCT_CLASS_DESC	NO_OF_PRODUCTS	INVENTORY_VALUE
3000	Promotion-High Value	4	2564300
2050	Electronics	4	1665600
3001	Promotion-Medium Value	3	1261900
2055	Mobiles	2	1092500
3002	Promotion-Low Value	3	749250

Table 3

Problem 4

Write a query to display customer_id, full name, customer_email, customer_phone, and country of customers who have cancelled all the orders placed by them(use sub-query)

Output:

CUSTOMER_ID	FULL_NAME	CUSTOMER_EMAIL	CUSTOMER_PHONE	COUNTRY
41	THARMAN SHANMUGARATNAM	tharshan@yahoo.co.sg	8572898929	Singapore

Table 4

Problem 5

Write a query to display shipper name, city to which it is catering, number of customer catered by the shipper in the city and number of consignments delivered to that city for shipper dhl(9 rows)

Output:

SHIPPER_NAME	CITY	NO_OF_CUSTOMERS	NO_OF_CONSIGNMENTS_DELIVERED
DHL	Abington	1	1
DHL	Amherst	1	1
DHL	Bangalore	3	5
DHL	Birmingham	1	1
DHL	Brooklyn	1	1

Table 5

Problem 6

Write a query to display customer id, customer full name, total quantity and total value (quantity*price) shipped where mode of payment is cash and the customer's last name starts with 'g'

Output:

CUSTOMER_ID	FULL_NAME	TOTAL_QUANTITY	TOTAL_VALUE
6	Anita Goswami	25	93237
24	Brian Grazer	4	4010

Table 6

Problem 7

Write a query to display order_id and volume of the biggest order (in terms of volume) that can fit in carton id 10

Output:

ORDER_ID	VOLUME
10064	14988000

Table 7

Problem 8

8. Write a query to display product_id, product_desc, product_quantity_avail, quantity sold, and show inventory status of products as below as per below condition:

a. for electronics and computer categories,

- if sales till date is zero then show 'no sales in past, give discount to reduce inventory',
- if inventory quantity is less than 10% of quantity sold, show 'low inventory, need to add inventory',
- if inventory quantity is less than 50% of quantity sold, show 'medium inventory, need to add some inventory',
- if inventory quantity is more or equal to 50% of quantity sold, show 'sufficient inventory'

b. for mobiles and watches categories,

- if sales till date is zero then show 'no sales in past, give discount to reduce inventory',
- if inventory quantity is less than 20% of quantity sold, show 'low inventory, need to add inventory',
- if inventory quantity is less than 60% of quantity sold, show 'medium inventory, need to add some inventory',
- if inventory quantity is more or equal to 60% of quantity sold, show 'sufficient inventory'

c.rest of the categories,

- if sales till date is zero then show 'no sales in past, give discount to reduce inventory',
- if inventory quantity is less than 30% of quantity sold, show 'low inventory, need to add inventory',
- if inventory quantity is less than 70% of quantity sold, show 'medium inventory, need to add some inventory',
- If inventory quantity is more or equal to 70% of quantity sold, show 'sufficient inventory'

Output:

PRODUCT_ID	PRODUCT_DESC	QUANTITY_AVAILABLE	QUANTITY_SOLD	INVENTORY_STATUS
99999	Samsung Galaxy Tab 2 P3100	50	0	NO SALES IN PAST, GIVE DISCOUNT TO REDUCE INVENTORY
99998	Nikon Coolpix L810 Bridge	50	0	NO SALES IN PAST, GIVE DISCOUNT TO REDUCE INVENTORY
99997	Sony Xperia U (Black White)	50	0	NO SALES IN PAST, GIVE DISCOUNT TO REDUCE INVENTORY
99994	HP Deskjet 2050 All-in-One - J510a Printer	100	0	NO SALES IN PAST, GIVE DISCOUNT TO REDUCE INVENTORY
99995	LG MS-2049UW Solo Microwave	100	0	NO SALES IN PAST, GIVE DISCOUNT TO REDUCE INVENTORY

Table 8

Problem 9

Write a query to display product_id, product_desc and total quantity of products which are sold together with product id 201 and are not shipped to city bangalore and new delhi. Display the output in descending order with respect to tot_qty.(use sub-query)

Output:

PRODUCT_ID	PRODUCT_DESC	TOTAL_QUANTITY
216	External Hard Disk 500 GB	3
201	Sky LED 102 CM TV	2
207	Remote Control Car	2
202	Sams 192 L4 Single-door Refrigerator	1
212	Samsung Galaxy On6	1

Table 9

Problem 10

Write a query to display the order_id,customer_id and customer fullname and total quantity of products shipped for order ids which are even and shipped to address where the pincode is not starting with "5".

Output:

ORDER_ID	CUSTOMER_ID	FULL_NAME	TOTAL_QUANTITY
10008	7	ASHWATHI BHATT	25
10022	23	ANNA PINNOCK	2
10024	32	HANS ZIMMER	2
10030	52	SUCHIRITHAA EKANAYAKE	2
10032	7	ASHWATHI BHATT	7

Table 10