SQL - CODED PROJECT

DSBA

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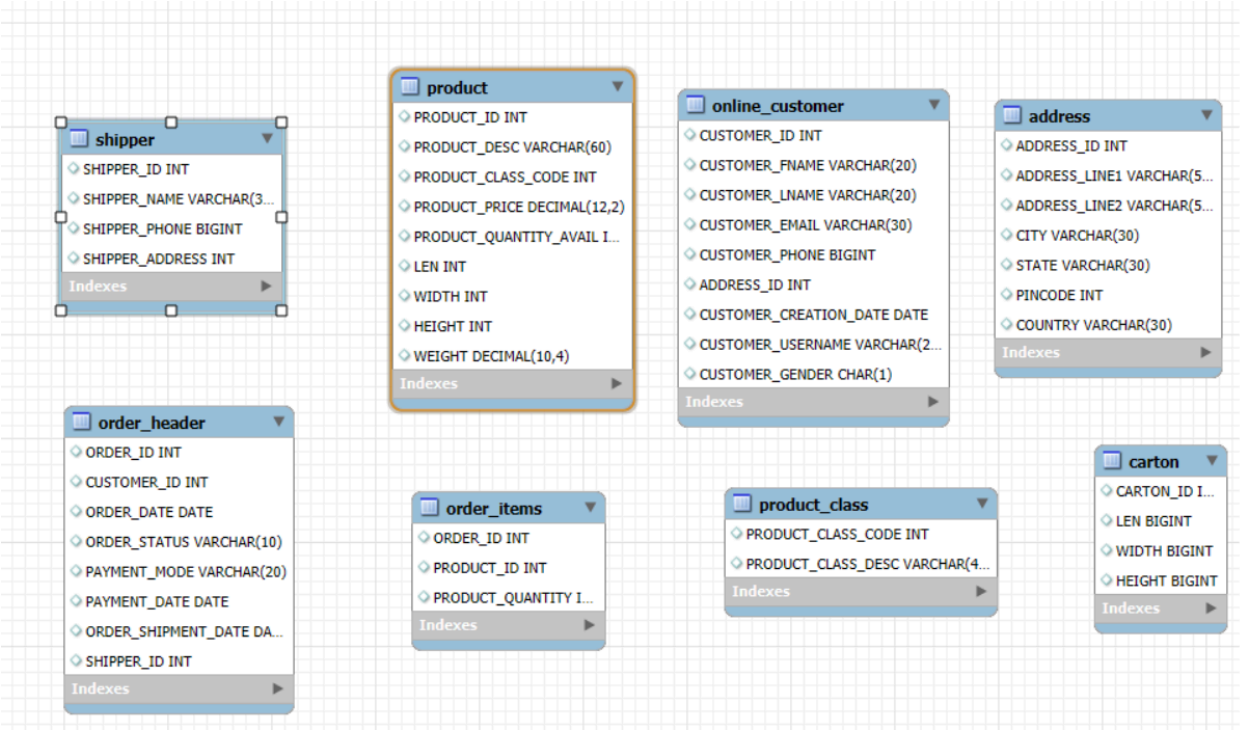
Contents

Data Dictionary for Queries: (orders)

The database "orders", provided by "Reliant retail limited", used for this project has 8 tables. The following diagram represents the individual tables and columns present in each.



- Online_customer has all details about customers who are customers of "Reliant retail limited".
- Shipper has details of shipping companies who deliver the products.
- Product has details about products including their dimensions.
- Address has details about which products are delivered/shipped to which places.
- Order_header has details of how customers order which products via which modes of payment.
- Order_items has details of items that have been ordered along with their corresponding quantities.
- Product_ class has descriptions of product classes.
- Carton has details about storage capacities of cartons.

Project Problem Statement:

You are hired by a chain of online retail stores “Reliant retail limited”. They provide you with “orders” database and 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.

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:

i. If customer creation date year <2005 then category a

ii. If customer creation date year >=2005 and <2011 then category b

iii. If customer creation date year>= 2011 then category c

Hint: Use case statement, no permanent change in table required. [note: tables to be used -online_customer table]

Solution:

There are 52 rows in the output. Given below are the first 5 rows.

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

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

Problem 2

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 the below criteria. Sort the output concerning the decreasing value of inventory_value.

i. If product price > 20,000 then apply 20% discount

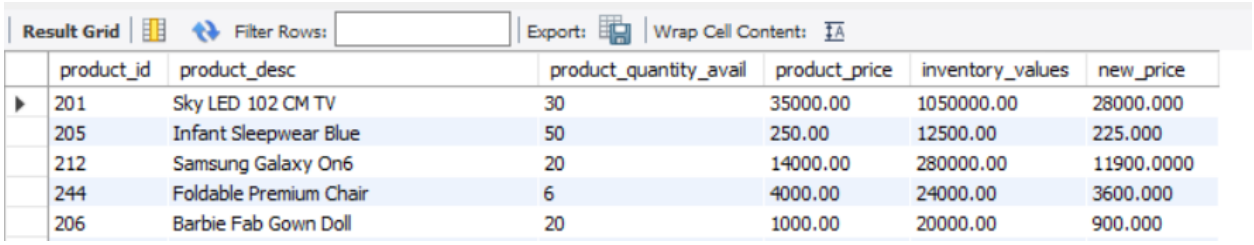
ii. If product price > 10,000 then apply 15% discount

iii. If product price =< 10,000 then apply 10% discount

Hint: use case statement, no permanent change in table required. [note: tables to be used -product, order_items table]

Solution:

Three are 205 rows in the output. Top 5 rows of the output of the given problem statement.



product_id	product_desc	product_quantity_avail	product_price	inventory_values	new_price
201	Sky LED 102 CM TV	30	35000.00	1050000.00	28000.000
205	Infant Sleepwear Blue	50	250.00	12500.00	225.000
212	Samsung Galaxy On6	20	14000.00	280000.00	11900.0000
244	Foldable Premium Chair	6	4000.00	24000.00	3600.000
206	Barbie Fab Gown Doll	20	1000.00	20000.00	900.000

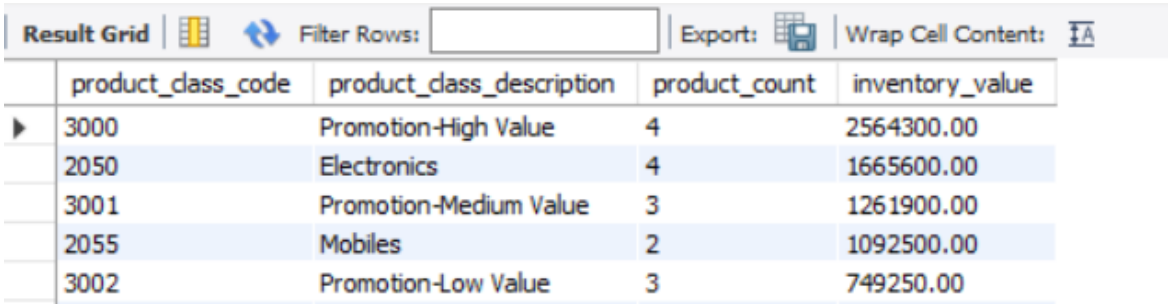
Problem 3

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

[note: tables to be used -product, product_class]

Solution:

There are a total of 9 rows in the output. First five rows:



product_class_code	product_class_description	product_count	inventory_value
3000	Promotion-High Value	4	2564300.00
2050	Electronics	4	1665600.00
3001	Promotion-Medium Value	3	1261900.00
2055	Mobiles	2	1092500.00
3002	Promotion-Low Value	3	749250.00

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)

[note: tables to be used - online_customer, addresss, order_header]

Solution:

There are 52 rows in total. Given below are the top 5 rows:

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

customer_id	full_name	customer_email	customer_phone	country
8	Neetha Castelina	neetha20@gmail.com	8196236362	India
33	Niseema Zimmer	niseemaz@yahoo.com	8179413840	USA
51	Ahmad Bin Gh Azali	ahmad_bingh@yahoo.co.my	7348292313	Malaysia
34	Hans Zimmer	hans_zimmer@gmail.com	9477272235	USA
41	Tharman Shanmugaratnam	tharshan@yahoo.co.sg	8572898929	Singapore

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

[note: tables to be used -shipper, online_customer, address, order_header]

Solution:

There are 9 rows in total in the output. Given below are the top 5 rows:

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

shipper_name	city	number_of_customers_catered_by_shipper	number_of_consignments
DHL	Abington	1	1
DHL	Amherst	1	1
DHL	Bangalore	5	5
DHL	Birmingham	1	1
DHL	Brooklyn	1	1

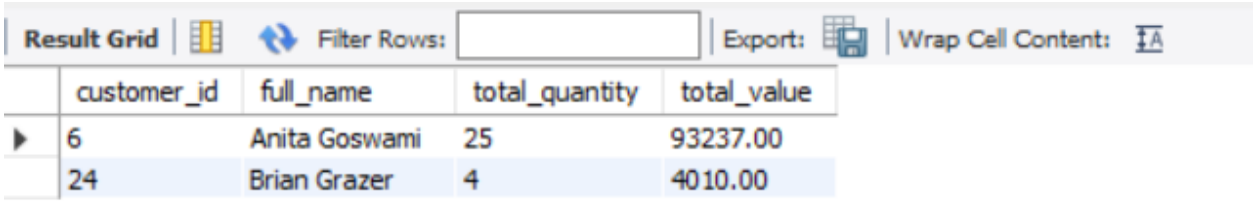
Problem 6:

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 customer last name starts with 'g'

[note: tables to be used -online_customer, order_items, product, order_header]

Solution:

There are 2 rows in total in the output. Given below are the final 2 rows:



customer_id	full_name	total_quantity	total_value
6	Anita Goswami	25	93237.00
24	Brian Grazer	4	4010.00

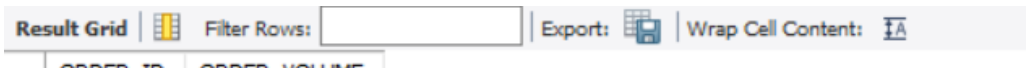
Problem 7:

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

-- [note: tables to be used -carton, order_items, product]

Solution:

There are 19 rows in total in the output but according to the question we can take the output for one row that has the biggest order volume. Given below are both top 5 rows and the row with the biggest order volume row respectively.



ORDER_ID	ORDER_VOLUME
10064	14988000
10033	12350000
10036	7636875
10042	7632000
10058	7632000

	ORDER_ID	ORDER_VOLUME
▶	10064	14988000

Problem 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,

i. If sales till date is zero then show 'no sales in past, give discount to reduce inventory',

ii. If inventory quantity is less than 10% of quantity sold, show 'low inventory, need to add inventory',

iii. If inventory quantity is less than 50% of quantity sold, show 'medium inventory, need to add some inventory',

iv. If inventory quantity is more or equal to 50% of quantity sold, show 'sufficient inventory'

b. For mobiles and watches categories,

i. If sales till date is zero then show 'no sales in past, give discount to reduce inventory',

ii. If inventory quantity is less than 20% of quantity sold, show 'low inventory, need to add inventory',

iii. If inventory quantity is less than 60% of quantity sold, show 'medium inventory, need to add some inventory',

iv. If inventory quantity is more or equal to 60% of quantity sold, show 'sufficient inventory'

c. Rest of the categories,

i. If sales till date is zero then show 'no sales in past, give discount to reduce inventory',

ii. If inventory quantity is less than 30% of quantity sold, show 'low inventory, need to add inventory',

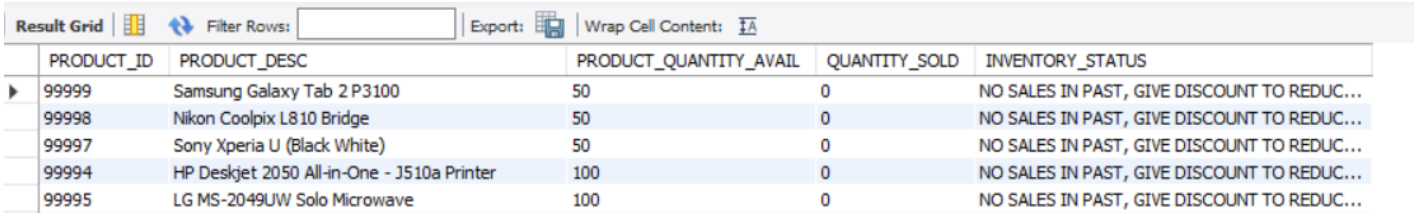
iii. If inventory quantity is less than 70% of quantity sold, show 'medium inventory, need to add some inventory',

iv. If inventory quantity is more or equal to 70% of quantity sold, show 'sufficient inventory'

[note: tables to be used -product, product_class, order_items] (use sub-query)

Solution:

There are 60 rows in total in the output. Given below are the top 5 rows:


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

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

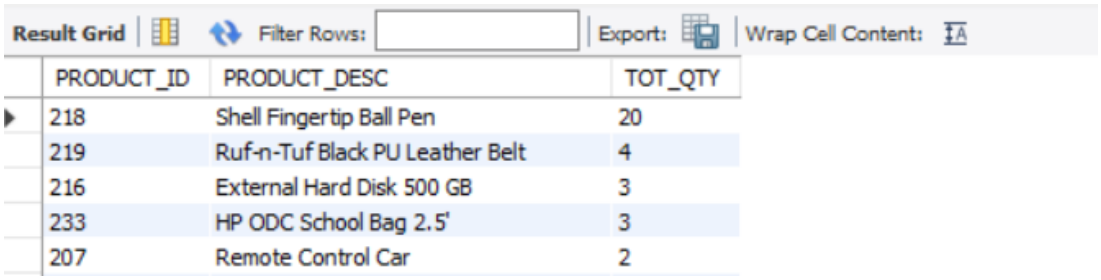
Problem 9:

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 concerning tot_qty.(use sub-query)

[note: tables to be used -order_items,product,order_header, online_customer, address]

Solution:

There are 13 rows in total in the output. Given below are the top 5 rows:



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

PRODUCT_ID	PRODUCT_DESC	TOT_QTY
218	Shell Fingertip Ball Pen	20
219	Ruf-n-Tuf Black PU Leather Belt	4
216	External Hard Disk 500 GB	3
233	HP ODC School Bag 2.5'	3
207	Remote Control Car	2

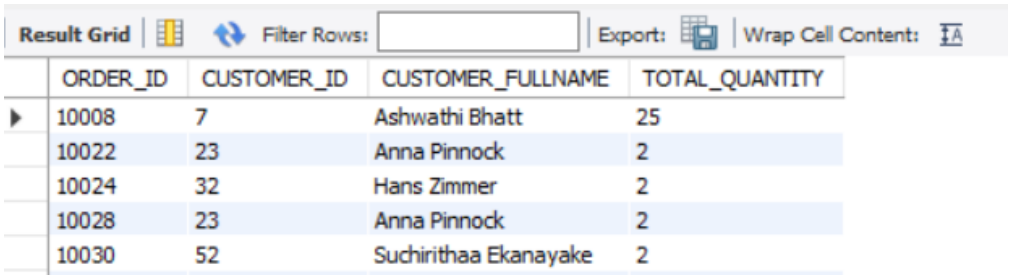
Problem 10:

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 pincode is not starting with "5"

[note: tables to be used - online_customer,order_header, order_items, address]

Solution:

There are 19 rows in total in the output. Given below are the top 5 rows:



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

ORDER_ID	CUSTOMER_ID	CUSTOMER_FULLNAME	TOTAL_QUANTITY
10008	7	Ashwathi Bhatt	25
10022	23	Anna Pinnock	2
10024	32	Hans Zimmer	2
10028	23	Anna Pinnock	2
10030	52	Suchirithaa Ekanayake	2