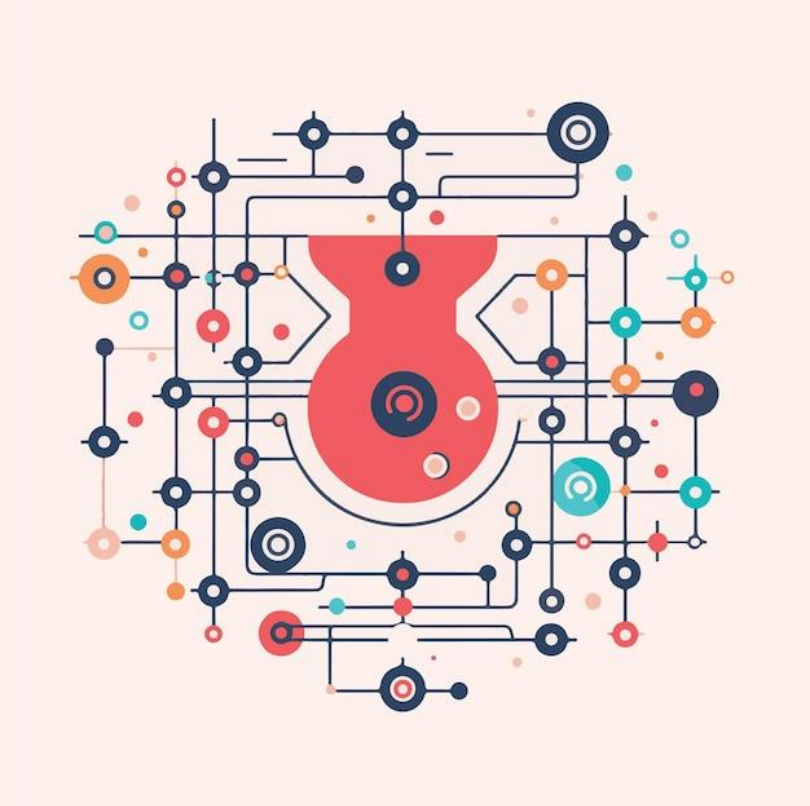

# SQL PROJECT

By Kurt Warren Mario Gilby On August 11th 2024

Submitted to

Great Learning
POWER AHEAD

As a part of the requirements for completion of PGP-DSBA offered in affiliation with

TEXAS McCombs
The University of Texas at Austin
McCombs School of Business

# Table of Contents

# List of Figures



# List of Tables

***No table of figures entries found.***

# List of Equations

**No table of figures entries found.**

# Introduction

This file is a supporting document to the working file with the "SQL Code", In this project I have utilized the syntax, functions and querying tools and techniques to solve the questions posed in this project.

This project will see me using the Select From, Where, Group By, Order By, Having, Count and Sum functions etc. to query the Database "orders", the schema of the tables used for this exercise is as follows:

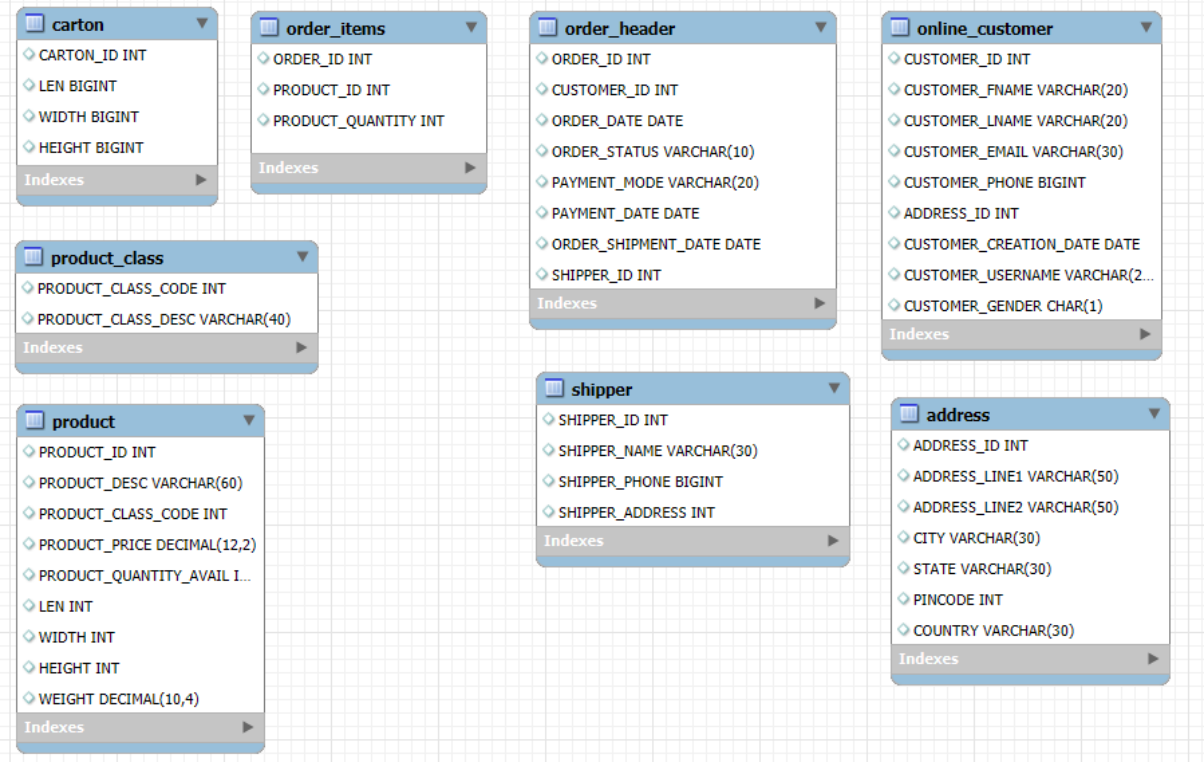


*Figure 1 Orders Schema Table List and Structure*

# Problem 1

## Overview

We are hired by a chain of online retail stores **"Reliant retail limited"**. They provide us 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.

All the queries are given in the Code file(format .SQL), which is submitted along with file for this project. This file is primarily to post the sample outputs of all those queries.

## Question 1

- Query to display
    a. Customer Full Name with title (Mr./Ms.) in upper case, along with customer email id, customer creation date and customer category.
    b. customer category is defined as:
        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

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

| CUSTOMER_FULL_NAME | CUSTOMER_EMAIL_ID | CUSTOMER_CREATIONDATE | 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 |
| MS. ASHWATHI BHATT | ash_bhat@yahoo.co.IN | 2007-04-15 | CATEGORY B |
| MS. NEETHA CASTELINA | neetha20@gmail.com | 2011-08-16 | CATEGORY C |
| MS. DEVIKA SATISH | devika_sa@gmail.com | 2011-09-01 | CATEGORY C |

*Figure 2 Question 1 Sample Output | Customers Categorised Based on Creation Age*

## Question 2

- Query to display
    c. 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.
    d. new_price is calculated as:
        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

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

| PRODUCT_ID | PRODUCT_DESC | PRODUCT_QUANTITY_AVAIL | PRODUCT_PRICE | INVENTORY_VALUES | NEW_PRICE |
|---|---|---|---|---|---|
| 99999 | Samsung Galaxy Tab 2 P3100 | 50 | 19300.00 | 965000.00 | 16405.0000 |
| 99997 | Sony Xperia U (Black White) | 50 | 16499.00 | 824950.00 | 14024.1500 |
| 99998 | Nikon Coolpix L810 Bridge | 50 | 14987.00 | 749350.00 | 12738.9500 |
| 99995 | LG MS-2049UW Solo Microwave | 100 | 4800.00 | 480000.00 | 4320.0000 |
| 99996 | Nokia Asha 200 (Graphite) | 100 | 4070.00 | 407000.00 | 3663.0000 |

*Figure 3 Question 2 Sample Output | List of Products NOT Sold With New Price Proposed*

## Question 3

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

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

| PRODUCT_CLASS_CODE | PRODUCT_CLASS_DESC | COUNT_PRODUCT_TYPE | 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 |

*Figure 4 Question 3 Sample Output | High Inventory Value Product Classes With Number of Product Types In Each*

## Question 4

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

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

| CUSTOMER_ID | CUSTOMER_FULL_NAME | CUSTOMER_EMAIL | CUSTOMER_PHONE | COUNTRY |
|---|---|---|---|---|
| 41 | MR. THARMAN SHANMUGARATNAM | tharshan@yahoo.co.sg | 8572898929 | Singapore |

*Figure 5 Question 4 Output | Customers Who Cancelled All Orders*

## Question 5

- Query to display
    a. shipper name, city to which it is catering, number of customers catered by the shipper in the city and number of consignments delivered to that city **for shipper DHL.**

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

| SHIPPER_NAME | CITY | COUNT_CUSTOMER_CATERED | COUNT_CONSIGNMENTS_DELIVERED |
|---|---|---|---|
| DHL | Abington | 1 | 1 |
| DHL | Amherst | 1 | 1 |
| DHL | Bangalore | 3 | 5 |
| DHL | Birmingham | 1 | 1 |
| DHL | Brooklyn | 1 | 1 |

*Figure 6 Question 5 Sample Output | For DHL Count of Customers Catered and Consignments Delivered by City Catered*

## Question 6

- Query to display
  - **a.** 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'**

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

| CUSTOMER_ID | CUSTOMER_FULL_NAME | TOTAL_QUANTITY | TOTAL_VALUE |
|---|---|---|---|
| 6 | MS. ANITA GOSWAMI | 25 | 93237.00 |
| 24 | MR. BRIAN GRAZER | 4 | 4010.00 |

*Figure 7 Question 6 Output | Total Value and Quantity for Orders Shipped Where Payment Mode is Cash and Customer Last Name Starts with 'G'*

## Question 7

- Query to display
  - a. order_id and volume of biggest order (**in terms of volume**) that can fit in **carton id 10**

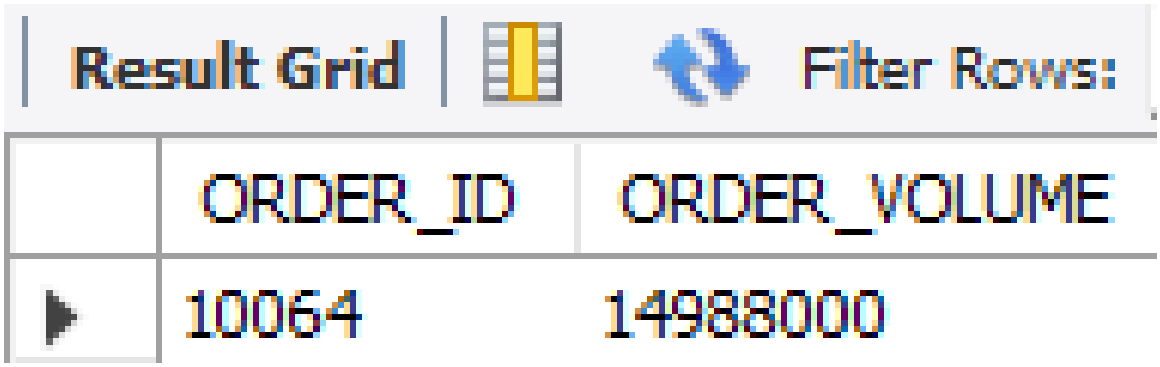


*Figure 8 Question 7 Output | Order # and Volume of Biggest Order That Can Fit In Volume of Carton Id 10*

## Question 8

- Query to display
    a. product_id, product_desc, product_quantity_avail, quantity sold, and show inventory status of products as below as per below condition:
        i. For electronics and computer categories
            1. If sales till date is zero then show 'no sales in past, give discount to reduce inventory',
            2. If inventory quantity is less than 10% of quantity sold, show 'low inventory, need to add inventory',
            3. If inventory quantity is less than 50% of quantity sold, show 'medium inventory, need to add some inventory',
            4. If inventory quantity is more or equal to 50% of quantity sold, show 'sufficient inventory'
        ii. For mobiles and watches categories,
            1. If sales till date is zero then show 'no sales in past, give discount to reduce inventory',
            2. If inventory quantity is less than 20% of quantity sold, show 'low inventory, need to add inventory',
            3. If inventory quantity is less than 60% of quantity sold, show 'medium inventory, need to add some inventory',
            4. If inventory quantity is more or equal to 60% of quantity sold, show 'sufficient inventory'
        iii. Rest of the categories,
            1. If sales till date is zero then show 'no sales in past, give discount to reduce inventory',
            2. If inventory quantity is less than 30% of quantity sold, show 'low inventory, need to add inventory',
            3. If inventory quantity is less than 70% of quantity sold, show 'medium inventory, need to add some inventory',
            4. If inventory quantity is more or equal to 70% of quantity sold, show 'sufficient inventory'

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 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 |

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

| PRODUCT_ID | PRODUCT_DESC | PRODUCT_QUANTITY_AVAIL | QUANTITY_SOLD | INVENTORY_STATUS |
|---|---|---|---|---|
| 239 | TRANS 2D A4 Size Box File | 6 | 5 | SUFFICIENT INVENTORY |
| 240 | 4M Post It Pad 3.5 | 8 | 29 | LOW INVENTORY, NEED TO ADD INVENTORY |
| 242 | GreenWud CT-NO-PR Coffee Table | 6 | 7 | SUFFICIENT INVENTORY |
| 243 | Supreme Fusion Cupboard 02TB | 3 | 5 | MEDIUM INVENTORY, NEED TO ADD SOME INVENTORY |
| 244 | Foldable Premium Chair | 6 | 16 | MEDIUM INVENTORY, NEED TO ADD SOME INVENTORY |

*Figure 9 Question 8 Sample Output |Product Wise Quantity Available/ Sold and Inventory Status*

## Question 9

- Query to display
  - **a.** 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)**

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

| PRODUCT_ID | PRODUCT_DESC | TOTAL_QUANTITY |
|---|---|---|
| 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 |

*Figure 10 Question 9 Sample Output | Total Quantity by Product ID sold along with 201 and Not Shipped to Bangalore and New Delhi.*

## Question 10

- Query to display
  - **a.** the order_id,customer_id and customer full name and total quantity of products shipped for **order ids which are even** and shipped to address **where pin code is not starting with "5"**

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

| ORDER_ID | CUSTOMER_ID | CUSTOMER_FULL_NAME | TOTAL_QUANTITY |
|---|---|---|---|
| 10008 | 7 | MS. ASHWATHI BHATT | 25 |
| 10022 | 23 | MS. ANNA PINNOCK | 2 |
| 10024 | 32 | MR. HANS ZIMMER | 2 |
| 10028 | 23 | MS. ANNA PINNOCK | 2 |
| 10030 | 52 | MS. SUCHIRITHAA EKANAYAKE | 2 |

*Figure 11 Question 10 Sample Output | Total Quantity, Order Id and Customer where Order Id is Even and Shipped to Pin code does NOT Start with "5"*