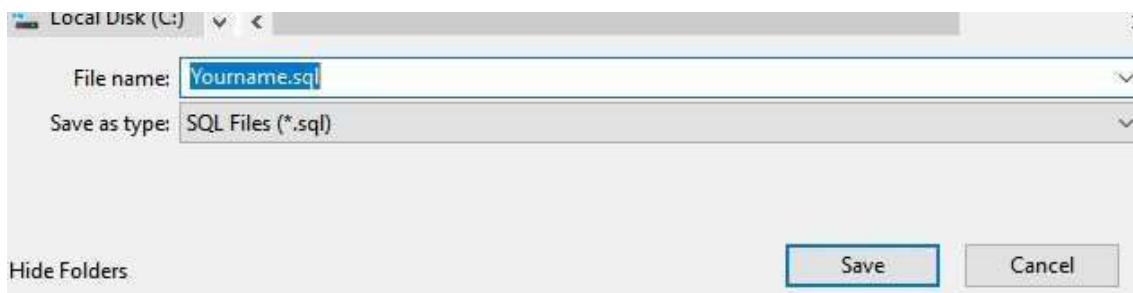


How to save files

MySQL(.SQL): After executing all the commands/answers, click on the file menu on the top left and save as Yourname.sql.

As shown below:



Order Management Schema Details

This document captures the scenario of simple order management functionality of an online retail store.

Typical purchase scenario: A customer places an order for N products specifying quantity for each line item of the order. Every product belongs to a product class (or category). All products ordered in one order, are shipped to customer's address (in India or outside) by a shipper in one shipment. Order can be paid using either Cash, Credit Card or Net Banking.

There can be customers who may not have placed any order. Few customers would have cancelled their orders (As a whole order, no cancellation of individual item allowed). Few orders may be 'In process' status. There can also be products that were never purchased.

Shippers use optimum sized cartons (boxes) to ship an order, based on the total volume of all products and their quantities. Dimensions of each product (L, W, H) is also stored in the database. To keep it simple, all products of an order are put in one single appropriately sized carton for shipping.

Project- (MYSQL)

You are hired by a chain of online retail stores "Reliant retail limited". They provided 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.

All the questions comes under MYSQL and the queries should be executed in MYSQL. (SQL Script -orders.sql)

All Questions carry 8 marks. Total Marks (8 x 10) = 80

ER Diagram

online_customer	
CUSTOMER_ID INT	
CUSTOMER_FNAME VARCHAR(20)	
CUSTOMER_LNAME VARCHAR(20)	
CUSTOMER_EMAIL VARCHAR(30)	
CUSTOMER_PHONE BIGINT	
ADDRESS_ID INT	
CUSTOMER_CREATION_DATE DATE	
CUSTOMER_USERNAME VARCHAR(20)	
CUSTOMER_GENDER CHAR(1)	
Indexes	

address	
ADDRESS_ID INT	
ADDRESS_LINE1 VARCHAR(50)	
ADDRESS_LINE2 VARCHAR(50)	
CITY VARCHAR(30)	
STATE VARCHAR(30)	
PINCODE INT	
COUNTRY VARCHAR(30)	
Indexes	

shipper	
SHIPPER_ID INT	
SHIPPER_NAME VARCHAR(30)	
SHIPPER_PHONE BIGINT	
SHIPPER_ADDRESS INT	
Indexes	

product	
PRODUCT_ID INT	
PRODUCT_DESC VARCHAR(60)	
PRODUCT_CLASS_CODE INT	
PRODUCT_PRICE DECIMAL(12,2)	
PRODUCT_QUANTITY_AVAIL INT	
LEN INT	
WIDTH INT	
HEIGHT INT	
WEIGHT DECIMAL(10,4)	
Indexes	

order_header	
ORDER_ID INT	
CUSTOMER_ID INT	
ORDER_DATE DATE	
ORDER_STATUS VARCHAR(10)	
PAYMENT_MODE VARCHAR(20)	
PAYMENT_DATE DATE	
ORDER_SHIPMENT_DATE DATE	
SHIPPER_ID INT	
Indexes	

order_items	
ORDER_ID INT	
PRODUCT_ID INT	
PRODUCT_QUANTITY INT	
Indexes	

carton	
CARTON_ID INT	
LEN BIGINT	
WIDTH BIGINT	
HEIGHT BIGINT	
Indexes	

product_class	
PRODUCT_CLASS_CODE INT	
PRODUCT_CLASS_DESC VARCHAR(40)	
Indexes	

1. Write a query to display the product details (product_class_code, product_id, product_desc, product_price) as per the following criteria and sort them descending order of category:
 - i) If the category is 2050, increase the price by 2000
 - ii) If the category is 2051, increase the price by 500
 - iii) If the category is 2052, increase the price by 600

Hint: Use CASE statement, no permanent change in table required.

[NORE:PRODUCT TABLE]

2. Write a query to display (product_class_desc, product_id, product_desc, product_quantity_avail) and Show inventory status of products as below as per their available quantity:

- a. For Electronics and Computer categories, if available quantity is ≤ 10 , show 'Low stock', $11 \leq \text{qty} \leq 30$, show 'In stock', ≥ 31 , show 'Enough stock'
- b. For Stationery and Clothes categories, if $\text{qty} \leq 20$, show 'Low stock', $21 \leq \text{qty} \leq 80$, show 'In stock', ≥ 81 , show 'Enough stock'
- c. Rest of the categories, if $\text{qty} \leq 15$ – 'Low Stock', $16 \leq \text{qty} \leq 50$ – 'In Stock', ≥ 51 – 'Enough stock'

For all categories, if available quantity is 0, show 'Out of stock'.

Hint: Use case statement. [NOTE : TABLES TO BE USED – product, product_class]

3. Write a query to Show the count of cities in all countries other than USA & MALAYSIA, with more than 1 city, in the descending order of CITIES.

[NOTE :ADDRESS TABLE]

4. Write a query to display the customer_id,customer full name ,city,pincode,and order details (order id,order date, product class desc, product desc, subtotal(product_quantity * product_price)) for orders shipped to cities whose pin codes do not have any 0s in them.

Sort the output on customer name, order date and subtotal.

[NOTE : TABLE TO BE USED - online_customer, address, order_header, order_items, product, product_class]

5. A stakeholder wants to find which product is ordered in highest quantity along with product_id 201.

In the orders that contain product id 201, find which other product is ordered in highest quantity (i.e. total quantity added across the orders is highest). Display following details: product id, product description, total quantity (i.e. sum(product quantity))

(USE SUB-QUERY) [NOTE : ORDER_ITEMS TABLE,PRODUCT TABLE]

6. Write a query to display the customer_id,customer name, email and order details (order id, product desc,product qty, subtotal(product_quantity * product_price)) for all customers even if they have not ordered any item.

[NOTE : TABLE TO BE USED - online_customer, order_header, order_items, product]

7. Write a query to display carton id ,(len*width*height) as carton_vol and identify the optimum carton (carton with the least volume whose volume is greater than the total volume of all items(len * width * height * product_quantity)) for a given order whose order id is 10006 , Assume all items of an order are packed into one single carton (box) . [NOTE : CARTON TABLE]

8. Write a query to display details (customer id,customer fullname,order id,product quantity) of customers who bought more than ten (i.e. total order qty) products with credit card or net banking as the mode of payment per shipped order.

[NOTE: TABLES TO BE USED - online_customer, order_header, order_items,]

9. Write a query to display the order_id,customer_id and customer fullname starting with "A" along with (product quantity) as total quantity of products shipped for order ids > 10030

[NOTE: TABLES to be used-online_customer,Order_header, order_items]

10. Write a query to display product class description, totalquantity(sum(product_quantity), Total value (product_quantity * product price) and show which class of products have been shipped highest(**Quantity**) to countries outside India other than USA? Also show the total value of those items.

[NOTE:PRODUCT TABLE,ADDRESS TABLE,ONLINE_CUSTOMER
TABLE,ORDER_HEADER TABLE,ORDER_ITEMS TABLE,PRODUCT_CLASS TABLE]