

You have been hired as a database administrator for a retail company, which has multiple stores across different locations. The company wants to keep track of its inventory, sales, and customers' information. You are required to design and develop a database for the company and perform the following tasks.

1. Create a database named "RetailDB" with the following tables: a. "Products" table with columns "ProductID" (primary key), "ProductName", "CategoryID" (foreign key), "UnitPrice", "UnitsInStock", "UnitsOnOrder", and "ReorderLevel". b. "Categories" table with columns "CategoryID" (primary key), "CategoryName", and "Description". c. "Customers" table with columns "CustomerID" (primary key), "CustomerName", "ContactName", "Address", "City", "PostalCode", "Country", and "Phone". d. "Orders" table with columns "OrderID" (primary key), "CustomerID" (foreign key), "EmployeeID" (foreign key), "OrderDate", "RequiredDate", "ShippedDate", "ShipVia", and "Freight". e. "OrderDetails" table with columns "OrderID" (foreign key), "ProductID" (foreign key), "UnitPrice", "Quantity", and "Discount".
2. Add the necessary constraints to the table structures, such as primary key, foreign key, check, unique, and not null.
3. Insert data into the "Products", "Categories", "Customers", and "Orders" tables, as per the below requirements: a. Insert at least 5 records in the "Products" table. b. Insert at least 3 records in the "Categories" table. c. Insert at least 10 records in the "Customers" table. d. Insert at least 15 records in the "Orders" table.
4. Write a query to extract all the customers from the "Customers" table who are from the "USA" and have placed orders in the year 2022.
5. Write a query to extract the top 5 selling products in the "Products" table based on the number of units sold.
6. Write a subquery to extract the customers who have not placed any orders in the "Orders" table.
7. Write a query to extract the order details of all the orders placed by the customer "ALFKI" in the "OrderDetails" table.
8. Write a query to update the product price by 10% for all the products in the "Products" table whose units in stock are less than the reorder level.
9. Write a query to delete all the orders from the "Orders" table that have not been shipped yet and were placed before January 1, 2023.
10. Write a query to display the products from the "Products" table and their categories from the "Categories" table using an inner join, and sort the results by the product name in ascending order.
11. Write a query to display the average unit price of all the products in the "Products" table, grouped by category, and sorted by category name in descending order.
12. Write a query to display the customer names and their total orders (by count) from the "Orders" table using a subquery.
13. Perform a rollback operation to undo the last transaction that you performed.
14. Demonstrate the usage of IN, ANY, and ALL operators with suitable examples.
15. Demonstrate the usage of the ORDER BY clause with the ASC and DESC keywords.

Note: Use appropriate SQL commands and syntax for all the above tasks.

Creating the required tables with constraints and populating them with at least 5 records each	30% marks
Questions 1-15	50% Marks
Mongodb	20% Marks