BA710 Winter 2022

SQL Review Exercises

Due Sunday March 13th

Upload a SQL script completing the following exercises. Insert screenshots containing the RESULTS GRID and the ACTION OUTPUT. For example:

Graphical user interface, text

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You must first initialize the database and load the data. Open BA710\_database.sql and execute in mySQLWorkbench. Upon completion, you should see a new database (schema) called BA710 containing tables to complete this exercise.

Note: The expected results below may only show a portion of the table, if the result set is too long to display in the Word document.

1. Which shippers do we have?

We have a table called Shippers. Return all the fields from all the shippers

select \* from ba710.shippers;

Graphical user interface, text, application, email

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Expected Results

Table

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2. Sales Representatives

We’d like to see just the FirstName, LastName, and HireDate of all the employees with the Title of Sales Representative. Write a SQL statement that returns only those employees.

select FirstName,LastName,HireDate from ba710.employees where Title='Sales Representative';

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Expected Results

Table

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3. Products with “queso” in ProductName

In the products table, we’d like to see the ProductID and ProductName for those products where the ProductName includes the string “queso”.

select ProductID,ProductName from ba710.products where ProductName like '%queso%';

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Expected Results

Text

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4. Orders shipping to France or Belgium

Looking at the Orders table, there’s a field called ShipCountry. Write a query that shows the OrderID, CustomerID, and ShipCountry for the orders where the ShipCountry is either France or Belgium.

select OrderId,CustomerID,ShipCountry from ba710.orders where ShipCountry in ('France','Belgium');

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Expected Results

Table

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5. Employees, in order of age

For all the employees in the Employees table, show the FirstName, LastName, Title, and BirthDate. Order the results by BirthDate, so we have the oldest employees first.

select FirstName,LastName,Title,BirthDate from ba710.employees order by BirthDate;

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Expected Results

Table

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6. Showing only the Date with a DateTime field

In the output of the query above, showing the Employees in order of BirthDate, we see the time of the BirthDate field, which we don’t want. Show only the date portion of the BirthDate field.

select FirstName,LastName,Title,Date(BirthDate) as DateOnlyBirthDate from ba710.employees order by BirthDate;

Graphical user interface, text, application

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Expected Results

Table

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7. OrderDetails amount per line item

In the OrderDetails table, we have the fields UnitPrice and Quantity. Create a new field, TotalPrice, that multiplies these two together. We’ll ignore the Discount field for now.

In addition, show the OrderID, ProductID, UnitPrice, and Quantity. Order by OrderID and ProductID.

select OrderID,ProductID,UnitPrice\*Quantity as TotalPrice from ba710.orderdetails order by OrderID,ProductID;

Graphical user interface, text

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Expected Results (Partial)

Table

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8. How many customers?

How many customers do we have in the Customers table? Show one value only, and don’t rely on getting the record count in the action panel; generate the number in the results panel.

select count(distinct(CustomerID)) as TotalCustomers from ba710.customers;

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Expected Results

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9. When was the first order?

Show the date of the first order ever made in the Orders table.

select min(OrderDate) as FirstOrder from ba710.orders;

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Expected Results

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10. Contact titles for customers

Show a list of all the different values in the Customers table for ContactTitles. Also include a count for each ContactTitle.

select ContactTitle,count(ContactTitle) as TotalContact from ba710.customers group by ContactTitle order by TotalContact desc;

Table

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Expected Results

Table

Description automatically generated

11. Products with associated supplier names

We’d like to show, for each product, the associated Supplier. Show the ProductID, ProductName, and the CompanyName of the Supplier.

Sort the result by ProductID.

This question will require the Join clause in SQL.

select ProductID,p.ProductName,s.CompanyName from ba710.products as p,ba710.suppliers as s where p.SupplierID=s.SupplierID;

Table

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Expected Results (Partial)

Table

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12. Products that need reordering

What products do we have in our inventory that should be reordered? For now, just use the fields UnitsInStock and ReorderLevel, where UnitsInStock is less than or equal to the ReorderLevel, Ignore the fields UnitsOnOrder and Discontinued.

Sort the results by ProductID.

SELECT ProductID,ProductName,UnitsInStock,ReorderLevel FROM ba710.products where UnitsInStock<=ReorderLevel;

Table

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Expected Results

Table

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13. High freight charges

Some of the countries we ship to have very high freight charges. We'd like to investigate some more shipping options for our customers, to be able to offer them lower freight charges. Return the three ship countries with the highest average freight overall, in descending order by average freight.

select ShipCountry,avg(Freight) as AverageFreight from ba710.orders group by ShipCountry order by AverageFreight desc limit 3;

Text

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Expected Results

Table

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