

Assignment A:

Use the **MIS_421_Northwind_Assignment** database on `Yorktown.cbe.wvu.edu\dsci` to complete the following questions. Make sure your scripts do not contain any errors.

- Name your file as so, **'MIS-421-CH02-OneTableQuery-LASTNAME-FIRSTNAME.sql'**.
- Use a comment line above your script to label the question number. For example
--Question #1
 - SQL comment line starts with two dashes -- for a single line
 - You can use /* at the beginning and */ at the end to include multiple lines of comments
 - **The length of any line in your file should NOT exceed 90 characters. Break a long line to multiple lines if it has more than 90 characters.**
- Questions that do not require queries should be answered in the same file as your queries as comments.

QUESTIONS:

1. Write an SQL statement to display all data in the Products table.
2. Write an SQL statement to display all data in the Categories table without using the wildcard character: *.
3. Write an SQL statement to display Description and CategoryID from Categories table. The columns in your result window should start with Description followed with CategoryID.
4. Write an SQL statement to display unique ProductIDs from OrderDetails table.
5. Write an SQL statement to display all products having a UnitsInStock less than 20.
6. Write an SQL statement to display the CategoryName, ProductName for products having UnitsInStock equal to 0 and UnitsOnOrder greater than 10.
7. Write an SQL statement to display the CategoryName, ProductID, ProductName for all products whose UnitsInStock equal to 0 or UnitsOnOrder is greater than UnitsInStock. Sort the result in descending order by CategoryName
8. Write an SQL statement to display the CategoryName, ProductID, ProductName, and UnitsInStock for all products having a UnitsInStock greater than 1 and less than 10. Use the BETWEEN keyword.
9. Write an SQL statement to show a unique CategoryName and ProductName for all products having a ProductName starting with 'Ch'.
10. Write an SQL statement to show a unique CategoryName and ProductName for all products having a ProductName that includes the word 'Tofu'.
11. Write an SQL statement to show a unique CategoryName and ProductName for all products having a 's' in the fifth position from the right in ProductName.
12. Write an SQL statement that combines CategoryName and ProductName as one column named as Category_Product. CategoryName should be separated from ProductName name by a '-'. You need remove ending spaces from CategoryName and ProductName names before combining them together.

13. Write an SQL statement that uses the SQL built-in functions: SUM, AVG, MAX, MIN on the UnitsInStock column. Include meaningful column names in the result.
14. Explain the difference between the SQL build-in functions COUNT and SUM.
15. Write an SQL statement to display from the OrderDetails table the ProductID and the number of times a product has been ordered (Hint: use COUNT function in the Select clause and GROUP BY clause). Name the number of times ordered column as NumOfTimesOrdered.
16. Write an SQL statement to display from the Products table the CategoryID, CategoryName, and the sum of UnitsInStock grouped by CategoryID, CategoryName and name the sum TotalProductsOnHand. Only include products that have 100 or less in stock (Hint: use a WHERE clause). Only show categories having more than 200 total products in stock (Hint: use a GROUP BY and HAVING clause). Display the results in descending order by TotalProductsOnHand.
17. In your answer to question 16, was the WHERE clause or the HAVING clause applied first? Why?