

Homework | module 2 > week 6 > day 14

Topics covered: databases & sql

Standard Exercise:

Using the MySQL Database from the w3school website, answer the following questions (*to keep a copy of your queries, after you find the solution, paste the query below each question*):

1. What is the Average Product Price?

```
SELECT price,  
AVG(price) as avg_price  
FROM [Products] =28.8
```

2. How many unique products are there?

```
SELECT distinct Productid as distinct_productid  
FROM Products; =77
```

3. Using the Customers table, isolate the first names of the customers in a new variable called CustomerFirstName; are there any customers with the same first name? If yes, how many duplicates are there?

```
SELECT CustomerName,  
SUBSTRING_INDEX(Customername, " ", 1) as CustomerFirstName  
FROM Customers;
```

```
Select  
Count (Substring_index(CustomerName, " ", 1) as customer_firstname  
Count (Distinct (Substring_index(CustomerName, " ", 1)) as  
dist_customerfirstname  
Count (Substring_index(CustomerName, " ", 1) - Count (Distinct  
(Substring_index(CustomerName, " ", 1)) as n_duple_name  
  
From Customers;
```

4. Using the Orders table, create a new variable that calculates the number of days between today and the OrderDate and call it DaysFromOrder.

```
SELECT * , DATEDIFF(CURRENT_DATE(), OrderDate) AS DaysFromOrder  
FROM Orders;
```

- a. Now convert this variable from days to years and call it YearsFromOrder.

```
SELECT * , ROUND (DATEDIFF(CURRENT_DATE(), OrderDate)/365) AS  
YearsFromOrder  
FROM Orders;
```

- b. What is the average difference between OrderDate and current date (in terms of years)?

```
SELECT * ,  
avg(ROUND (DATEDIFF(CURRENT_DATE(), OrderDate)/365)) AS  
AverageFromOrder  
FROM Orders; =25,35
```

- c. How many years have passed from the oldest order to the most recent one? **SELECT**

```
MIN(orderdate) as oldest  
MAX(orderdate) as most_rec  
DATEDIFF(MAX(orderdate),MIN(Orderdate))/365  
From Orders
```

5. Using the Shippers table, create a new variable called Prefix where you isolate the prefix of the Phone variable.

```
SELECT * ,  
Oppure MID <----- Left(Phone , 5) as Prefix  
FROM Shippers;
```

Advanced Exercise (optional):

Go to the [w3school SQL web editor tool](https://www.w3schools.com/sql/default.asp), look at each of the tables in there and see if you can build the star/snowflake schema that links all those tables to each other (something like the sample schema in the picture below). You can use pen and paper, a google spreadsheet or a more advanced tool such as [lucidchart](https://lucidchart.com).

