Homework 1

Due Sep 12 by 11:59pm **Points** 50 **Submitting** a file upload **File Types** sql and txt **Available** Sep 5 at 12:20pm - Sep 12 at 11:59pm 7 days

This assignment was locked Sep 12 at 11:59pm.

Submit a query for each of the following questions. All queries will be solutions against the **WideWorldImporters** database, and only use the **Sales.Orders** table.

Question 1

15 points - Write a query to show the monthly totals for orders placed in 2015. The results should have no more than 12 rows and include the following three columns.

- **Month -** The month of year, values 1 - 12.
- **CustomerCount -** The number of unique customers who placed an order in the month.
- **OrderCount -** The total number of orders placed in the month.

The resulting rows should be sorted by month in ascending order.

Question 2

15 points - Write a query that provides lifetime customer information for each customer that has placed an order. Since we are interested in lifetime information, all orders in **Sales.Orders** are to be considered. The result should include the following columns:

- **CustomerID -** As it exists in the table *Sales.Orders*
- **OrderCount -** The total number of orders placed by the customer.
- **FirstOrderDate -** The date of the first order placed.
- **LastOrderDate -** The date of the last order placed.
- **CustomerCategory -** A character value that contains one of three values:
  - "Few Orders" - Returned if the customer had fewer than 25 orders.
  - "Growing Customer" - Returned if the customer had at least 25 and fewer than 100 orders.
  - "Large Customer" - Returned if the customer had at least 100 orders.

The resulting rows should be sorted by CustomerID in ascending order.

Question 3

20 points - Write a query that returns paginated results from the **Sales.Orders** table. The rows are sorted by **OrderID** in ascending order, and the number of rows is limited to a provided page size and determined by which page is requested.

Input

The inputs for the query should each be **made as variables** at the top of your solution and are as follows:

Variable Name	Data Type	Description
`@FirstOrderDate`	DATE	The first order date.
`@LastOrderDate`	DATE	The last order date.
`@PageSize`	INT	The number of rows in a page.
`@Page`	INT	The page to return, where 1 is the first page, 2 is the 2nd page, and so forth.

All orders with an order date between *@FirstOrderDate* and *@LastOrderDate* are candidates for the result set, however, only those rows that should belong on the page defined by *@Page* and *@PageSize* are returned. For example, if there are 1,000 orders with an order date that falls between *@FirstOrderDate* and *@LastOrderDate*, and *@PageSize* is 100 with *@Page* as 1, then the first 100 of the 1,000 orders will be returned. If *@Page* = 2, then the orders 101 - 200 will be returned, and so forth.

Output

The columns from the table to include are:

- **OrderID -** As it exists in the table *Sales.Orders*
- **OrderDate -** As it exists in the table *Sales.Orders*
- **CustomerID -** As it exists in the table *Sales.Orders*
- **SalespersonPersonID -** As it exists in the table *Sales.Orders*

Again, the rows are sorted by *OrderID* in ascending order.

Submission

Please submit your solution to each question in a single SQL file. Include a comment line above each solution indicating which question it answers. Please do not submit your results, only the SQL solutions.

Homework Rubric

Criteria	Ratings		Pts
Question 1	**15.0 pts** **Full Marks**	**0.0 pts** **No Marks**	15.0 pts
Question 2	**15.0 pts** **Full Marks**	**0.0 pts** **No Marks**	15.0 pts
Question 3	**20.0 pts** **Full Marks**	**0.0 pts** **No Marks**	20.0 pts
			Total Points: 50.0