

## DA 6223 Quiz 2

Note: **To receive credit for this quiz, submit your SAS project (.egg) file before the submission deadline on Canvas.** Discussions between students are NOT allowed. You may consult lecture notes, demonstrations, exercises, etc. Good luck!

You may organize your projects as you like. Make sure to answer each question. You may create a note in the process flow.

Assign the ORION library first. You may use a program or a task.

### Problem 1 (7 pts)

#### Creating a Query and Subset a Dataset with Multiple Filters

Use **PROC SQL** to create a report that includes active employees (those with no termination date) hired on or before 01 JAN 2000 and who have zero dependents or are single (marital status is denoted as S for single). Use the **Employee\_Payroll** table and select Employee\_ID, Employee\_Hire\_Date, Dependents, and Marital\_Status columns.

- How many employees are there in your output report?

### Problem 2 (7 pts)

#### Creating a New Table in the Query Builder with an Advanced Filter

Use the **Employee\_Payroll** table and create a table with employees who retired in December, regardless of the retirement year. Use the Query Builder to create a query named December Retirees Query and a table named DecemberRetirees. Include these columns: Employee\_ID, Salary, and Employee\_Term\_Date. Label the Employee\_Term\_Date column as Termination Date and apply the DATE9. format. Apply DOLLAR11.2 format to Salary column. Include only those employees who retired in December. **Note:** Use the MONTH function. Order the output table by ascending Salary and then Employee\_ID. Run the query and answer the following question.

- How many rows are in the new DecemberRetirees table?

### Problem 3 (7 pts)

#### Creating a Query with a Calculated Column Using a Function

Use the Query Builder to create a table from the **employee\_donations** table with a new column that indicates the total contributions from each employee. Include the **Employee\_ID**, **Recipients**, and **Paid\_By** columns in the new table. Create a new column named Total\_Donations, which totals the values of the four quarterly donations. Format the new column to display dollar signs, commas, and two decimal places. Hint: Use a function to calculate the total, and thereby ignore any missing values that might be in the input columns.

- Which employees (list the Employee\_IDs) made the largest donations?

## Problem 4 (7 pts)

### Calculating the Elapsed Time Intervals with the INTCK Function

Use a PROC SQL step to analyze shipping methods in the **order\_fact** table. Orion wants to calculate the number of weekdays between the order date and the delivery date for each order. The INTCK function can be used to count the number of various time intervals between a start date and an end date. Report the Customer\_ID, Order\_Date, Delivery\_Date, and Product\_ID columns. Use the INTCK function to create a new column named **WeekdaysToDeliver**. The new column values are the number of *weekdays* between Order\_Date and Delivery\_Date. Exclude all retail purchases (Order\_Type = 1) because the items that are purchased in the store should not require shipping. Order the results so that the orders with the longest delivery times are at the top of the data set.

- What was the longest number of weekdays between Order\_Date and Delivery\_Date?