DA 6223 Quiz 5

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

You may organize your projects as you like.

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

Problem 1 (6 pts)

Splitting Data with a Prefix

Orion Star is conducting research to determine which customers are most likely to respond to Internet promotions. A data scientist in Orion suspects that the average time between previous Internet purchases could be predictive of the response. To do this analysis, you need to create a table that has one row for each customer and multiple columns for the order dates.

Add the **internetorderhistory** table from the ORION library to the project. Use the Split Columns task to create separate columns containing the order dates for each Customer_ID.

Specify that the text **Order** is used as a prefix to the value of **OrderNumber** when you create the variable names. (Hint: Go to the Results tab of the Split Columns task, find the column name prefix option, and modify it accordingly.) Rename the output dataset **InternetOrderSplit**.

Problem 2 (6 pts)

Stack Data

An Orion Star executive wants to create Figure 1 using the salary statistics for the years 2005 through 2014: (Note that you are not asked to generate the plot for this exercise.)

Salary statistics were previously calculated and are stored in the **salary_stats** data table. However, the structure of this table does not support using the Line Plot task to create the desired graph. Create a new table named **salary_stats_stacked** by restructuring salary_stats data using the Stack Columns task. (Hint: Pay attention to the years that need to be included in the resulting dataset.) Rename the newly created columns appropriately.

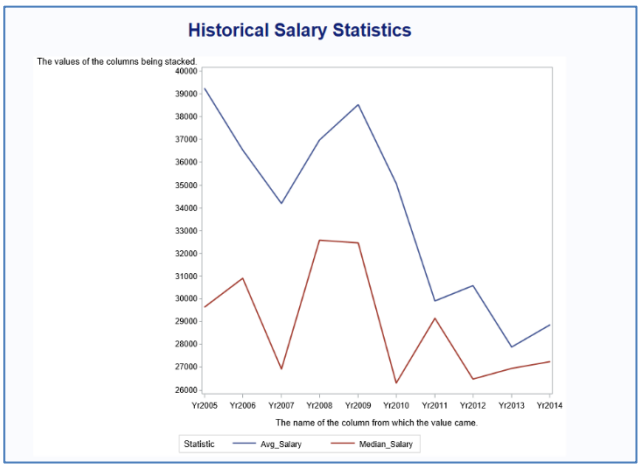

Figure 1. Historical Salary Statistics (2005-2014)

Problem 3 (5 pts)

Calculating Summary Statistics with Descriptive Statistics Functions

Use descriptive statistics functions to calculate the average contribution and the number of quarters that a contribution was made by each employee. Add the **employee_donations** table from the ORION library. Create a new column named **Total_Donations** that sums the quarterly donations for each employee. Create a new column named **Donation_Count** that represents the number of quarters that each employee donated. Name the output table donation_summary.

Problem 4 (5 pts)

Manipulating Character Values

Add the **newemployees** table to the project. Orion Star wants to create employee email addresses based on employee names. Create a table named **NewEmails** that contains each employee's ID, name, and e-mail address. The e-mail addresses must be created in this form: **firstname.lastname@orionstar.com**. Also, it should be lowercase. Submit the query and view the results.

Problem 5 (8 pts)

Manipulating Numeric and Character Values

Orion Star would like to send out birthday cards to its employees on the first day of each month. Use the **activeemployees** dataset to create a new table named **employee_birthday_celebration**. Include Employee_ID and Department columns from the activeemployees table and create Employee_FirstName, Employee_LastName, Employee_Address, and Birthday_Message_Date columns.

The Employee_Address column should be in the following format: "**Street_Number Street_Name, City, State, Postal_Code, Country**" Note that there is no comma between the street number and name.

The Birthday_Message_Date column should be in 01/01/1960 format, and it should show the first day of the birth month of the employee in this year.

Please see the partial output below:

	Employee_ID	Employee_FirstName	Employee_LastName	Employee_Address	Department	Birthday_Message_Date
108	120691	Sek	Habres	11 Reid Street, Sydney, 1005, AU	Stock & Shipping	01/09/2022
109	120692	Rit	Tregonning	26 Brisbane Avenue, Sydney, 2064, AU	Stock & Shipping	01/11/2022
110	120693	Diaz	Tellam	8 Aboukis Street, Sydney, 1223, AU	Stock & Shipping	01/05/2022
111	120694	Sharon	Leazer	29 Lawson Ave, Sydney, 1220, AU	Stock & Shipping	01/08/2022
112	120697	Madelaine	Fouche	1 Embarcadero Center Site 1500, Melbourne, 3000,...	Stock & Shipping	01/06/2022
113	120710	Timothy	Baltzell	31 Castalia Dr, Philadelphia, PA, 19140, US	Marketing	01/11/2022
114	120711	Gloria	Drew	17 Kempwood Dr, Philadelphia, PA, 19119, US	Marketing	01/05/2022
115	120712	Elisabeth	Motashaw	360 Bridgepath Dr, Miami-Dade, FL, 33150, US	Marketing	01/06/2022
116	120713	Carston	Campbell	19 Fairwinds Dr, San Diego, CA, 92069, US	Marketing	01/02/2022
117	120714	Robert	Dinley	182 Fort Sumter Rd, Miami-Dade, FL, 33160, US	Marketing	01/04/2022
118	120715	Angelia	Neal	6278 Aqua Marine Ln, San Diego, CA, 92054, US	Marketing	01/06/2022
119	120716	Kenneth	Juif	881 Green Downs Dr, Philadelphia, PA, 19143, US	Marketing	01/07/2022
120	120717	Jon	Sleva	472 Big Bend Ct, Miami-Dade, FL, 33155, US	Marketing	01/01/2022

Also, create a **List Data task** and group the information in the **employee_birthday_celebration** table by Department.

Upload your project under Quiz 4.