IDS462 HW2

Download all the SAS datasets and one flat dat file attached for this assignment, and see the problem descriptions below.

Your SAS code/program should start with the following lines to show the hw assignment # as well as the members who contributed into this:

/\* IDS462 HW2 \*/

/\* Name of student1 \*/

and if this is a team of more than 1 student add the names of all students as

/\* Name of student2 \*/

/\* Name of student3 \*/

….

Submit only one SAS code/program to solve all problems given, and make sure to put comments within /\* \*/ in the beginning of each problem/part to show what you are solving.

**/\* Problem 1 \*/**

1. Concatenate **sales** and **nonsales** to create a new data set, **work.allemployees**. Use a RENAME= data set option to change the names of the different variables in **nonsales**. The new data set should include only **Employee\_ID**, **First\_Name**, **Last\_Name**, **Job\_Title**, and **Salary**.
2. Add a PROC PRINT step to create a report with 10 observations only.

**/\* Problem 2 \*/**

1. Write a DATA step to concatenate **charities** and **us\_suppliers** and create a temporary data set, **contacts**.
2. Submit a PROC CONTENTS step to examine **work.contacts**. From which input data set were the variable attributes assigned? Provide your answer in comment before the code.
3. Write a DATA step to concatenate **us\_suppliers** and **charities** and create a temporary data set, **contacts2**. Notice that these are the same data sets as in the previous program, but they are in reverse order.
4. Submit a PROC CONTENTS step to examine **work.contacts2**. From which input data set were the variable attributes assigned? Provide your answer in comment before the code.

**/\* Problem 3 \*/**

* + 1. Merge **orders** and **order\_item** by the common variable to create a new data set, **work.allorders**.
    2. Submit the program and confirm that **work.allorders** was created with 732 observations and 12 variables.
    3. Add a statement to subset the variables. The new data set should contain six variables: **Order\_ID**, **Order\_Item\_Num**, **Order\_Type**, **Order\_Date**, **Quantity**, and **Total\_Retail\_Price**.

**/\* Problem 4 \*/**

* 1. Sort **product\_list** by **Product\_Level** to create a new data set, **product\_list**.
  2. Merge **product\_level** with the sorted data set. Create a new data set, **work.listlevel**, which includes only **Product\_ID**, **Product\_Name**, **Product\_Level**, and **Product\_Level\_Name**.
  3. Create a report to include only those observations with **Product Level** equal to *3.*

**/\* Problem 5 \*/**

* 1. Merge **product\_list** and **supplier** by **Supplier\_ID** to create a new data set, **work.prodsup**.
  2. Submit the program and confirm that **work.prodsup** was created with 556 observations.
  3. Modify the DATA step to output only those observations that are in **product\_list** but not **supplier**.
  4. Submit the program and confirm that **work.prodsup** was created with 75 observations   
     and 10 variables.
  5. Submit the PROC PRINT step to create a report. The results should contain 75 observations.

**/\* Problem 6 \*/**

The raw data file **rates** attached contains the following:

* + origination (three-letter code)
  + destination (three-letter code)
  + range of flight (*SHORT*, *MEDIUM*, or *LONG*)
  + cargo rate (price per pound)
  + passenger fare (price per passenger)
  + category of flight (*DOM* for domestic, *INT* for international)

|  |  |
| --- | --- |
| Field Layout | Size and type |
| Origination  Destination  Range  CargoRate  PassengerFare  Category | **1**-**3 (char)**  **6**-**8 (char)**  **12**-**17 (char)**  **20**-**23 (numeric)**  **28**-**34 (numeric)**  **38**-**40** (char) |

Cargo rates and passenger fares at International Airlines will increase on all flights to offset the pilot bonuses and salary increases.

* + Cargo rates will increase 50 cents per pound (name variable as new\_cargo\_rate)
  + Passenger fares will increase as follows (name variable as new\_pass\_fare)

– 8% if a short-range flight

– 10% if a medium-range flight

– 12% if a long-range flight

The management of International Airlines needs three reports to reflect the increase in cargo rates and passenger fares. You are assigned to this job to produce 3 following reports for the management:

* A listing of all the flights with the new cargo rate
* A comparison between the average current passenger fare and the average new passenger fare for the domestic and international flights
* A breakdown of the frequency and percentage of domestic flights and international flights