AIT 580 – Assignment 5 - SQL
Due Sunday September 23, 2018
Please submit on Blackboard

SQL Data Set Exploration: Employee Attrition Dataset

Location: Course Content - Datasets - EmployeeAttrition.csv

Tool: You need to use pgAdmin III for this assignment inside Virtual Box VM

1. Open pgAdmin III
2. Double click on AIT580-Database(localhost:5432). This will connect you to the database
3. Traverse by clicking on + sign starting from Databases (1) > postgres > Schemas (1) > public > Tables (0).
4. Now click on the SQL button on top menu.
5. Write a Create Table query by looking at the EmployeeAttrition.csv file (will be used in answering Question 1 below)
6. Press green play button (execute query) on top. If successful, you will see a message "Query returned successfully". If not postgres will show you where the error is. You need to fix the error until you get the successful message
7. Close the query window and go back to main window.
8. Click the refresh button (green/red) on top menu and double click on Tables(0) again. It should change to Tables(1) and shows your new table which you created in step 5.
9. Right click on table name (CTRL+Right Click for Windows, Command + Right Click for Mac) and select Import option.
10. Browse the EmployeeAttrition.csv file, select Format as csv (from dropdown menu), click on Misc.Option tab on the bottom and check the header option.
11. Press Import. If your table is created successfully with all the columns similar to EmployeeAttrition.csv file, you will see Done message. If not, please see the error and check your create table script or csv file again.
12. You can also check and validate the data inside your table. Right click on table name and select View Data > View Top 100 rows.
13. In case you need to delete the table and create it again, right click on the table and select Delete/Drop option.
14. Once you are done, click on the SQL button to write SQL queries and answer the questions below

Screen shots:

There are two methods of taking snapshot

1. Click on the Application Circle icon on top left of Ubuntu VM. Then on the search bar, type "Screenshot". Then select option "select area to grab" and then press "Take Screenshot" button. Then select the area you like to capture. Then it will ask you to save the screenshot in a folder or directory. Recommended folder is "Documents" but you can choose any folder.

2. Click on green down arrow button at bottom left of your VM and the select "Insert Print Screen" option. The VM then ask you to save the screen shot to a particular folder or directory. Recommended folder is "Documents" but you can choose any folder.

Questions:

Please answer the following questions

NOTES: Include all **SQL queries** as well as **screen shots** of the output for all questions.

1. Write an SQL query to create table for given dataset. Use the SQL command below to display the characteristics of the table. **(10 points)**

   ```
   SELECT * FROM information_schema.columns WHERE table_name =
   'your_table_name';
   ```

   where your_table_name is the table name you used in CREATE TABLE query.

2. Write SQL commands that find the following:
   a. Count the total number of records in the table. **(5 points)**
   b. How many unique JOBROLE are there in the dataset. Order them by alphabetical order from A to Z. **(5 points)**
   c. Find EMPLOYEENUMBER, EDUCATIONFIELD, JOBROLE for all the employees whose AGE is greater than 50 and ATTRITION is YES **(10 points)**
   d. Count the different MARITALSTATUS when ATTRITION is YES in the dataset. Arrange the count in descending order (Hint: Use GROUP BY statement) **(10 points)**
   e. For each JOBROLE when the ATTRITION is No, find the average MONTHLYINCOME for only those employees having DAILYRATE greater than or equal to 110 (Hint: Use GROUP BY and HAVING statements together) **(10 points)**