NYC DATA SCIENCE ACADEMY

SQL Quiz Part 2

Data Science Bootcamp

Instructions

- There are 2 sections in this homework. Each section contains 5-10 queries. The questions are easy, You need to
  - Write the solution queries in Mysql;
  - Save the queries into a file names "*yourname*_sql_quiz2.sql". (Before each query, add a comment - a line starting with two dashes - indicating which question this query answers.)
  - Push your solution file on Github(bootcamp3_student repo, sql_quiz_part2 folder).
- You need to do the following exercises in **your own database**.

```
$ mysql
mysql> use yourname_db;
```

Section 1

1. Download this data set; the information about attributes is here (item 7). Upload it to the server using `scp`. Create a table named adult which has the same structure. Two ways to get the data on server:
   - Download the data directly on our server using `curl` or `wget`;
   - Download on your local machine and copy it to server using `scp`.
2. Load the data set adult.data into table adult(***Note**: In the original data, separators are ", "[a comma followed with a space], remember to set the value of* `FIELDS TERMINATED` *to ", " instead of ","*).

Section 1

3. Are there any missing values in the table? How many rows have missing values?
   - For numerical fields, use the '*is not null*' condition.
   - For string fields, missing values are represented as "?".
4. Remove the rows having missing values.
5. What's the ratio of *number of '<=50K' / number of '>50K'* in column class. (*Hint*: Create two "temporary" tables.)

Section 1

6. Compute the average age in each class.

7. How many rows in class '>50K' where the age is less than 36.78?

8. What's the average hours-per-week in each class?

9. What's the ratio of *number of '<=50K' / number of '>50K'* in Female and Male (column sex)? (*Hint*: Create two "temporary" tables.)

Section 2

1. Delete the record in table Employee whose Employeeid is "5".
2. Delete all records involving department Sale from table Employee.
3. Add a column AvgWage(FLOAT) to table Department. (Hint: Read this page to learn how to add a column)
4. Compute the average wage of each department in table Employee, and write the result into table Deparment, column AvgWage.
5. Increase the basewage of employees in department "Finance" by 10%.