Note: Submit the queries written in **Pandas**. Don't include the output-results, and don't use SQL.

Late Submission will resut in zero points

Complete the following tasks. **2 points/Task**

Load : NBA Data

1. Find number of unique values in College, and Position Columns.

2. Count and display the number of teams under each college.

3. For each distinct value of Age, compute the following statistics :

    a. For Height column – minimum, and maximum value
    b. For Weight column – minimum, and maximum value
    c. For Salary column – sum (total), mean, and count.
    (Hint – use 'agg' function)

4. For Texas College, find minimum Salary for every Position.

5. Count number of players under every age ctegory, who play for 'Boston Celtics' Team.

Load : Tips Data

1. Find how many female, and male customers smoke.

2. Display the records of male customers who had dinner on Saturday.

3. Display the records of female customers who had meal either on Saturdays, or Sundays.

4. For each day, print only the total_bill, and tip information (use for loop if necessary, to iterate through different keys/groups).

5. For evey day, display number of males and females under smoking, nonsmoking categories.

6. For each day and time, find the following statistics :

    a. For total_bill column – minimum, maximum, mean, and sum.
    b. For tip column – minimum, maximum, mean, and sum.

7. Find total number of non-smoker males and females.

8. Find average tip given by/per gender.

9. Find how many male and female customers who smoke had dinner on Friday.

10. Find the count/number of tips above amount $5.

Load : States (population, area, abbreviation) Data

1. Perform left join between population and abbreviation data. What type of cardinality is involved between these datasets ?

2. Perform right join between population and abbreviation data.

3. What type of cardinality is involved between the above two datasets ? Also, explain why the number of rows returned in the above two queries (1,2) are different.

4. Perform inner join between area and abbreviation data.

5. Perform outer join between area and abbreviation data.

6. What type of cardinality is involved between the above two datasets ? Also, explain why the number of rows returned in the above two queries (4, 5) are different

7. Find the state, and it's abbrevation having minimum area (in square miles).

8. Count total number of population in 2010 across all states.

Submission:

Copy your python-code into a doc or pdf file, and upload the file through the submission link provided on blackboard.