**CSC583/783 Data Visualization**

**Homework 4**

**Due: Monday, May 4.**

**(30 points)**

**Please answer the following questions using R and RStudio. For full credits, you should contain screenshots (outputs only) from RStudio.**

1. (3 points) In the dataset of a HW4-data.csv, what are the column names of the dataset? Create a data frame to answer it.
2. (3 points) Extract the first 3 rows of the data frame and print them to the console. What does the output look like?
3. (3 points) How many observations (i.e. rows) are in the data frame you create in the question 1 and 2?
4. (3 points) What is the value of Ozone in the 11th row?
5. (3 points) How many missing values are in the Ozone column of the data frame you create?
6. (3 points) What is the mean of the Ozone column in this dataset? Exclude missing values (coded as NA) from this calculation. Note that use thousandths.
7. (3 points) Extract the subset of rows of the data frame where Ozone values are below 25 and Temp values are above 80.
8. (3 points) What is the mean of Solar.R in this subset from the question 7?
9. (3 points) What is the mean of "Temp" when "Month" is equal to 8?
10. (3 points) What was the maximum ozone value in the month of May (i.e. Month = 5)?