R-Class Module 5 Practice Problem 1

1. Construct a function c\_to\_f(): Convert Celsius to Fahrenheit

\* Input: Celsius

\* Statement: Fahrenheit = Celsius\*1.8+32

\* Output: Fahrenheit

2.Convert 26 Celsius to Fahrenheit

R-Class Module 5 Practice Problem 2

1. Download the data file from <https://www.dropbox.com/s/yy64i1ekeoo9wga/nyc_flights.csv?dl=0>

(CSV) https://www.dropbox.com/s/4hj71qxh1a8r23e/nyc\_flights.RData?dl=0 (RData)

1. Import nyc\_flights.csv to the R environment, save as a data.frame “flights”
2. Write your code to answer the following question

How many flights are observed?

How many flights are observed each month?

What is the maximum dep\_delay(departure delay time)?

What is the maximum air\_time?

1. Create a new object flights\_sample with the first 1000 rows of flights
2. Save the flights\_sample to a RData file “flights\_sample.RData”
3. Remove the object flights\_sample from the environment.
4. Load the object flights\_sample from the RData file.

R-Class Module 5 Practice Problem 3

1. Create a new data.frame “flights\_1” with the month, day, origin, dest, air\_time columns from flights
2. Order “flights\_1” by ascending air\_time
3. Print the first 10 rows of “flights\_1”
4. Calculate the average air\_time for all the flights whose origin is LGA on January 1st

R-Class Module 5 Practice Problem 4

1. Group the flights by route: origin+dest
2. Calculate the total number of flights, average dep\_delay, average arr\_delay for each route
3. Order the return by descending avearge dep\_delay time
4. Group the flights by carrier
5. Calculate the total number of flights,average dep\_delay, average arr\_delay, total distance covered for each carrier
6. Order the return with descending avg\_arr\_delay

R-Class Module 5 Practice Problem 5

Plot barplot with ggplot

1. A bar plot on count of flights for each weekday
2. A colored bar plot on count of flights for each weekday from each origin
3. Add a titile “Weekday Flights From Each NYC Airport” to your plot

Plot scatter point plot with ggplot

1. A scatter plot on distance for each airport
2. X axis is origin
3. Y axis is distance