--- title: "dottable" author: "Andrew Hwang" format: html editor: visual ---

{r} library(tidyverse) library(dplyr) library(data.table) nyc\_data <- fread("nycdata.csv")

Use and show data.table code to select the variables year, month, day, and hour from the imported flights data

{r} selected\_flights <- nyc\_data[, .(year, month, day, hour)] str(selected\_flights)

Use and show data. table code to produce a table that shows a carrier of DL, an origin of JFK and a destination of SEA

{r} filtered\_flights <- nyc\_data[carrier == "DL" & origin == "JFK" & dest == "SEA"] str(filtered\_flights)

Use and show data.table code to produce a table that shows a carrier of UA, a month of March, and an airtime that is below 330.

{r} filtered\_flights\_2 <- nyc\_data[carrier == "UA" & month == 3 & air\_time < 330] str(filtered\_flights\_2)

Use and show tidyverse code to produce a table that shows a carrier of UA, a month of March, and an airtime that is below 330.

{r} filtered\_flights\_3 <- nyc\_data |> filter(carrier == "UA", month == 3, air\_time < 330) head(filtered\_flights\_3)

Use the data.table method to add a variable called speed that is the average air speed of the plane in miles per hour.

{r} flights1 <- nyc\_data[, speed := (distance / air\_time) \* 60] str(flights1)

Use the tidyverse method to add a variable called speed that is the average air speed of the plane in miles per hour.

{r} flights2 <- nyc\_data |> mutate(speed = (distance / air\_time) \* 60) head(flights2)

Show and use coding to change the carrier abbreviation of UA to UniitedAir,

7a. data.table method

{r} united\_1<- nyc\_data[carrier == "UA", carrier := "UnitedAir"] str(united\_1)

7b. tidyverse method (Use a sequence of dplyr commands so that you can see the change in your table)

{r} united\_2 <- nyc\_data |> mutate(carrier = ifelse(carrier == "UA", "UnitedAir", carrier))