Day28 in-class

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Question1

#Question1================================================================

setwd("C:/Users/user/Desktop/2020spring/504 data visualization/In-class assignment")

library(ggplot2)

load("Jan2020Flight.Rdata")

#Select necessary variables only and start using "delay2".

delay2<-delay %>% select(ORIGIN\_STATE\_NM,OP\_UNIQUE\_CARRIER,dep\_hour,dep\_min)

#Calculate total number of flights per carrier.

delay\_sum<- delay2 %>%

group\_by(OP\_UNIQUE\_CARRIER)%>%

summarise(num\_flights=n())

#Create bargraph.

ggplot(data=delay\_sum) +

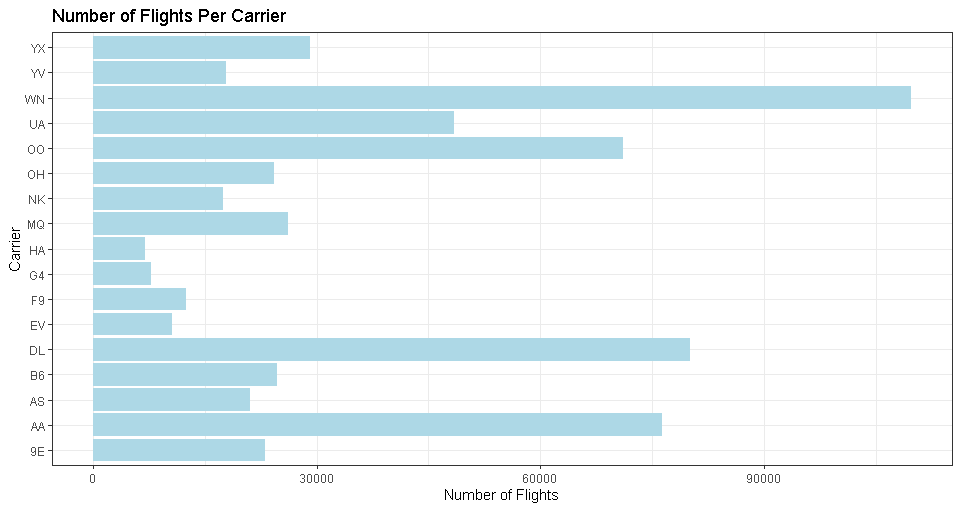
geom\_bar(aes(x=OP\_UNIQUE\_CARRIER,y=num\_flights),

stat="identity",fill="lightblue") +

labs(x="Carrier", y="Number of Flights",

title="Number of Flights Per Carrier")+

coord\_flip()+theme\_bw()



Question 2

#Question 2========================================================

#Create a new variable for the departure time.

delay\_dptime<-delay2 %>%

mutate(dp\_time=dep\_hour+dep\_min/60) %>% group\_by(ORIGIN\_STATE\_NM)

#Reorder the state by the amount of the median. (decreasing order)

reordered\_State <- with(delay\_dptime, reorder(ORIGIN\_STATE\_NM,dp\_time, median , na.rm=T))

#Boxplot

ggplot(delay\_dptime)+

geom\_boxplot(aes(x=reordered\_State, y=dp\_time),fill="skyblue")+

coord\_flip()+

labs(y="Departure time",x="State",

title="Boxplots for Departure Time for Each State")+

theme(axis.text.y = element\_text(size=8,angle=45),

axis.text.x = element\_text(size=8,angle=45))+

theme\_bw()

#For some reason, changing the size of the axis using axis.text.y does not #work in R mark down although it works in R

