Final exam _294lab

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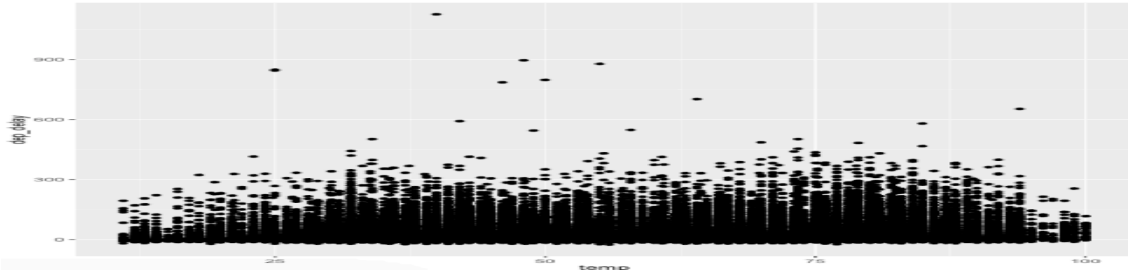
#1

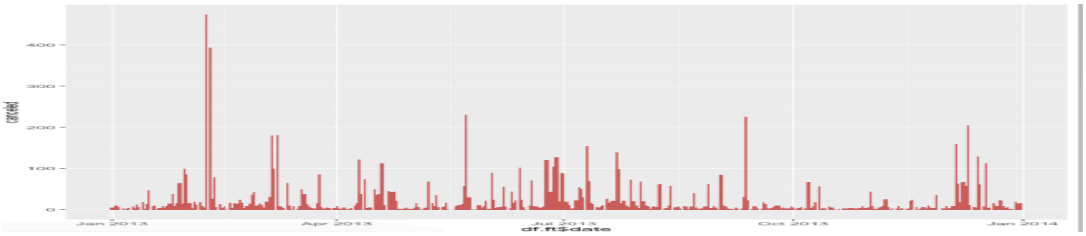
From the results of the linear model and glm model, we can tell that the depature time and cancelled flights are strongly related to the weather, including wind speed, humid, pressure, temperature(p-value is smaller than 0.05) To test the result, we use the ggplot to see the relationship. According to the plot, the departure delay time is different when temperature is different.

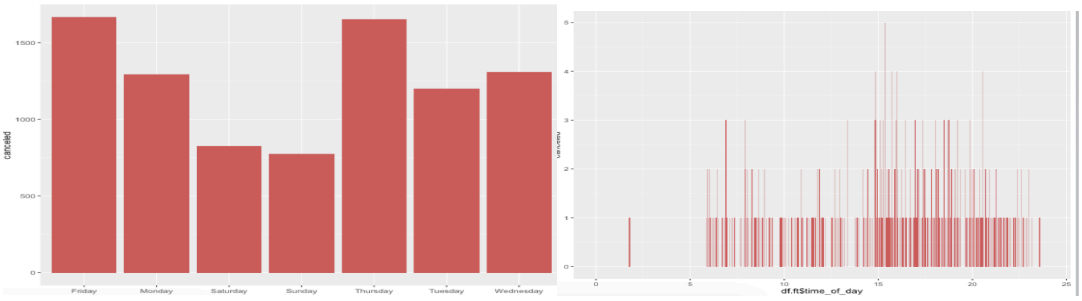


#2

From the linear and glm model, we can conclude cancelled flights are strongly related to day of the time and date. From the plot we can see that the date ans time of the day are very different for the cancelled flights.

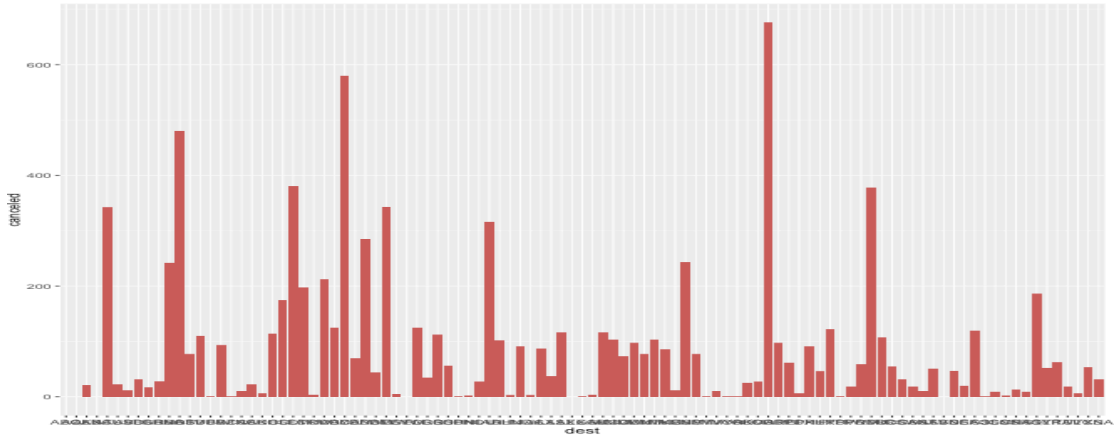
Apart from Thursday, other weekdays are also strongly related. From the plot we can see the cancelled flights for Thursday and for Friday are the same. At weekends, the number of cancelled flights





#3

we can see that for most of the destinations, the number of cancelled flights differ greatly. Some are extremely high, but some are extremely low. However, when we explore the relationship by looking at the glm model results, we can see some destination, such as LAS, SEA, SFO, don't play a significant role in cancelled flights. I noticed that those cities not playing a significant role are big city. I think it's because many flights go there, the number of cancelled will go up accordingly.



#4

From the plot, we can see that the airplanes with 2 engines have much higher cancelled flights compared with the others. The planes with 50 seats have much higher cancelled flights than others. According to the glm results , both engines and seats are statically significant.