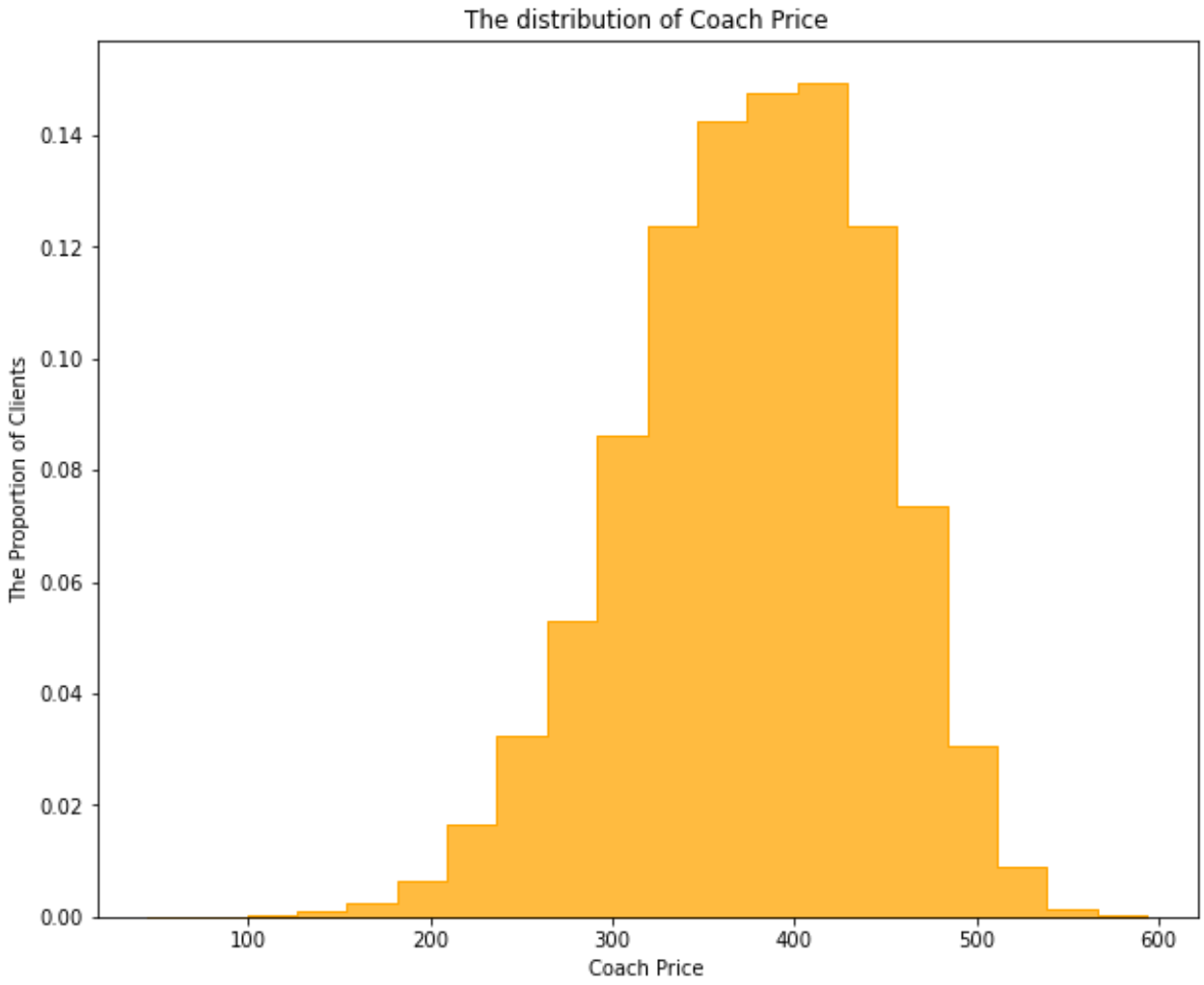
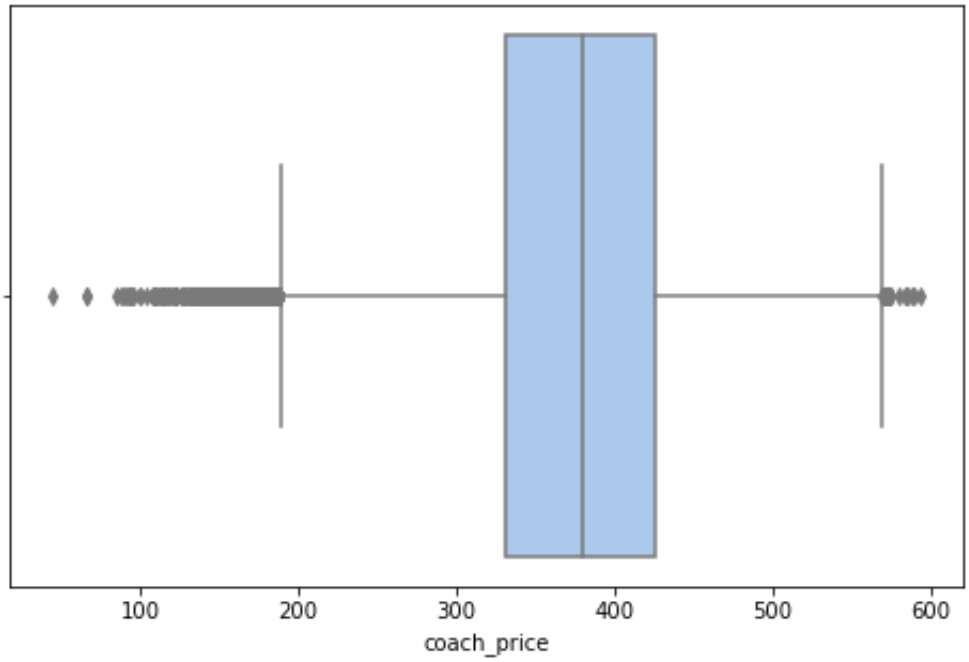
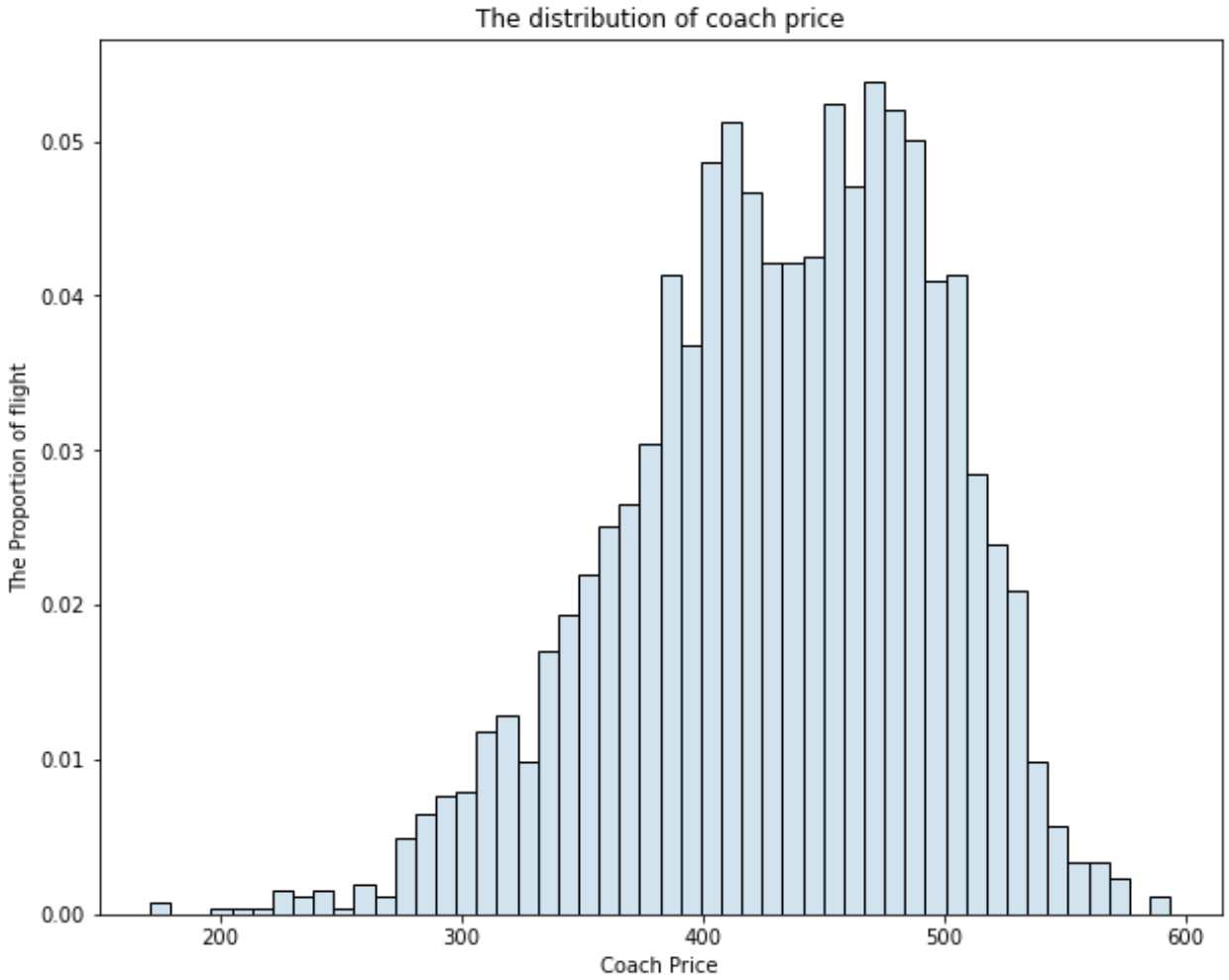


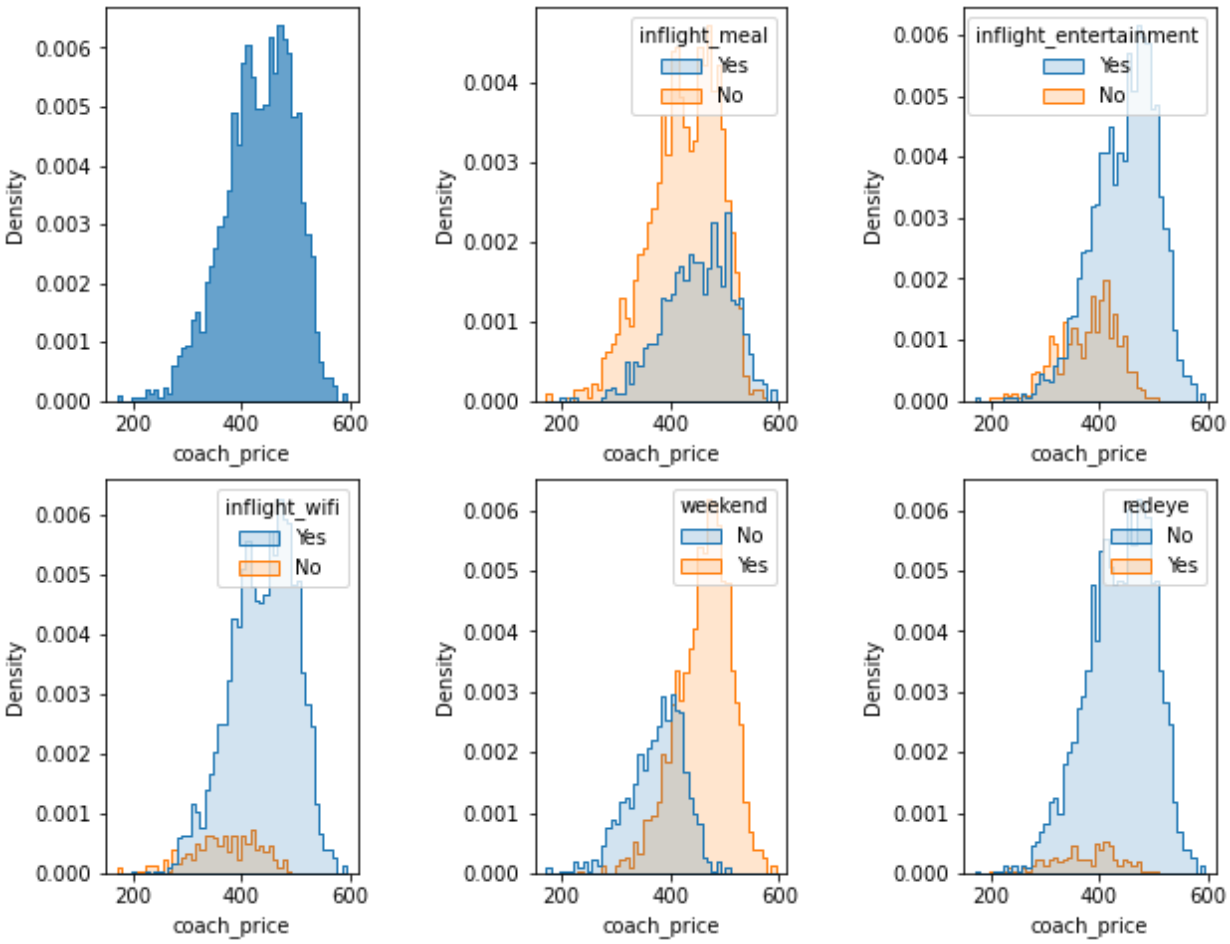
the data centralizes in the range from ~150 to ~550
most clients chose the standard prices oscillating from 350 to 450



mean value is nearly 400 that already calculated is ~376.58 (the vertical line in the box)
The box ranges from ~330 to ~415
The prices that are below 150 and above 550 are really scarce



In most of the 8hrs's flight trips, the clients chose the offers whose prices lies in the range from nearly $400 to nearly $500
There is some outliers which lies below $200 and nearly $600
If you get the trip prolonging 8 hours, the cost of $500 is reasonable

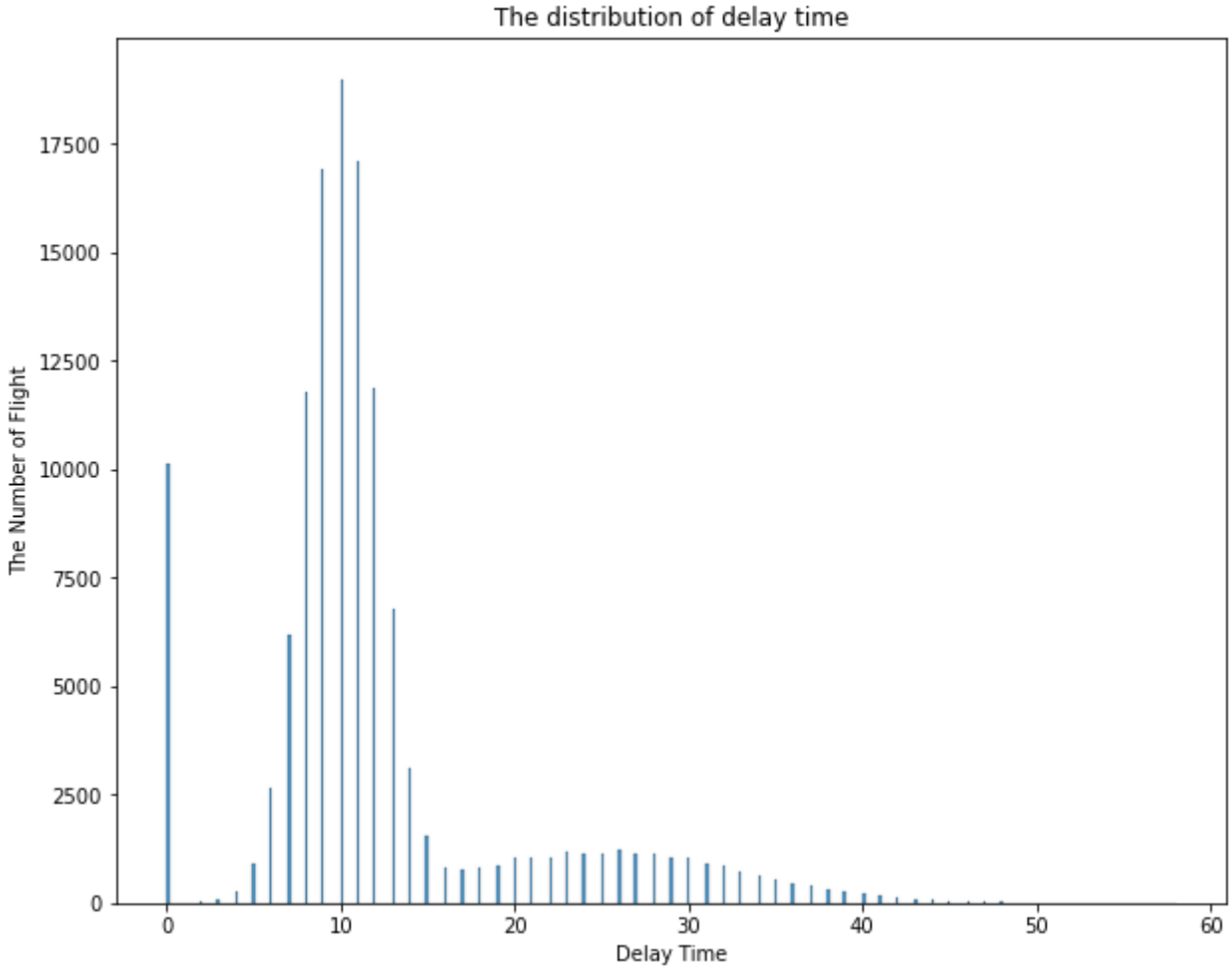


Most of these flights usually get entertainment and wifi service. However, it is not usual that customers to be offered the meal

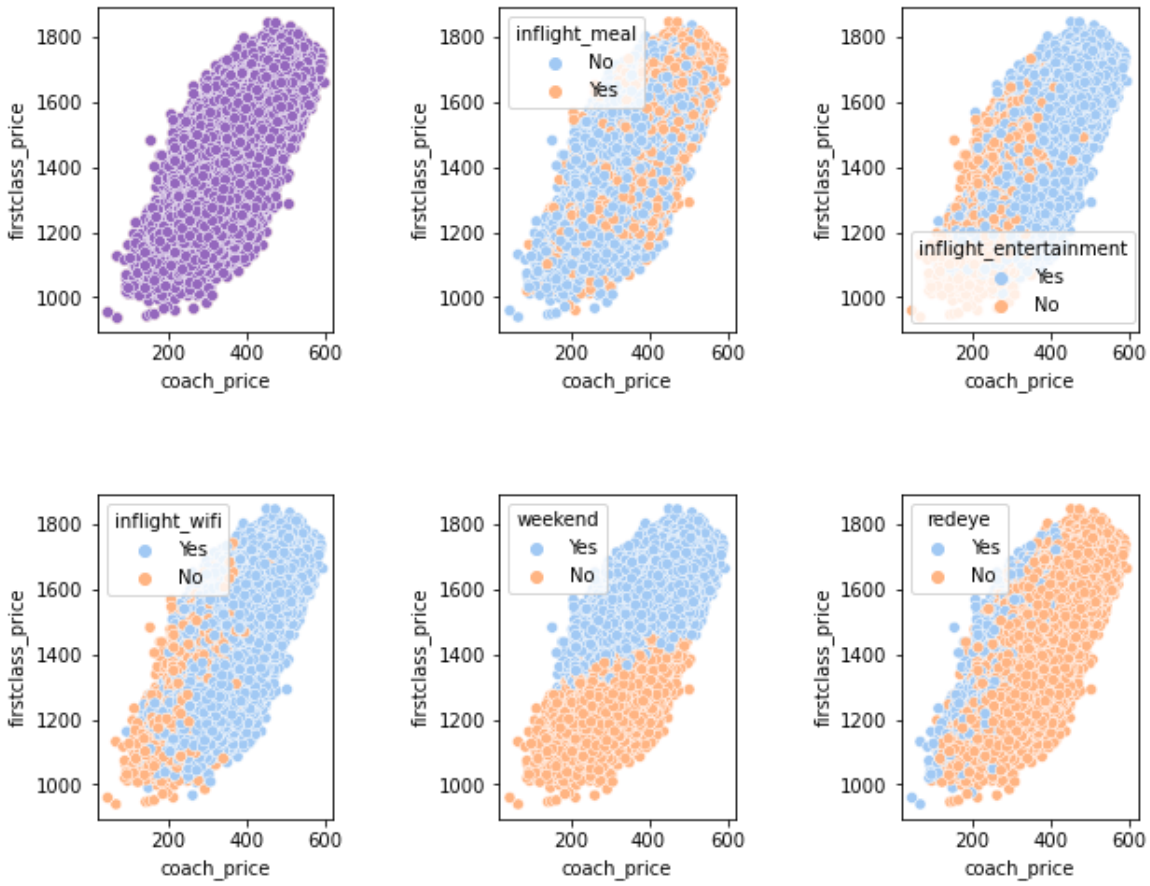
The much more price is paid, the more likely the high-quality services and meals are offered

If the trips need more time to travel, of course, they are often scheduled on the weekend

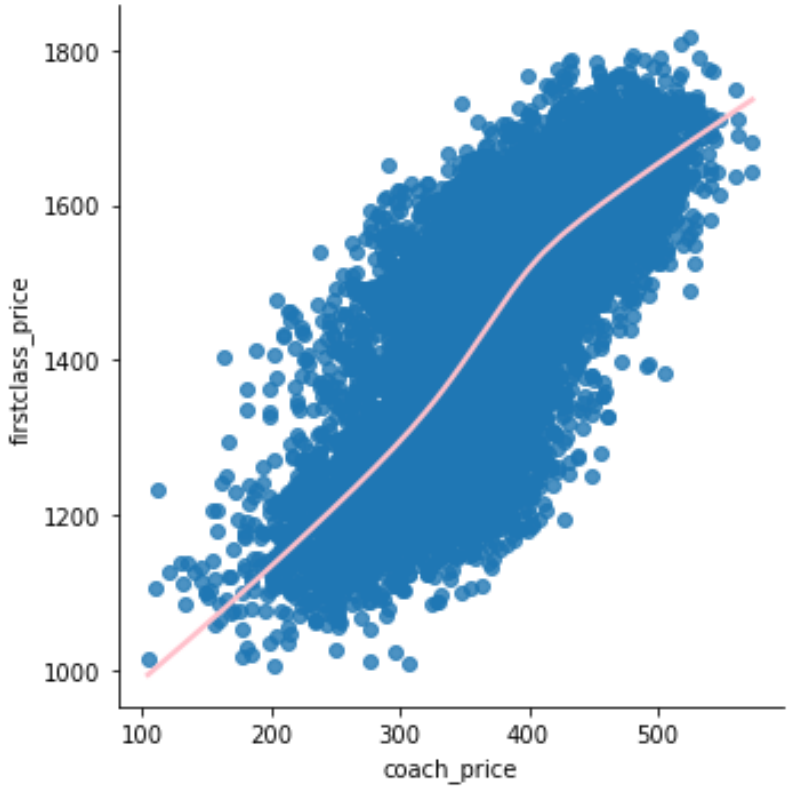
Most of these trips do not travel overnight which may relate to safety issues.



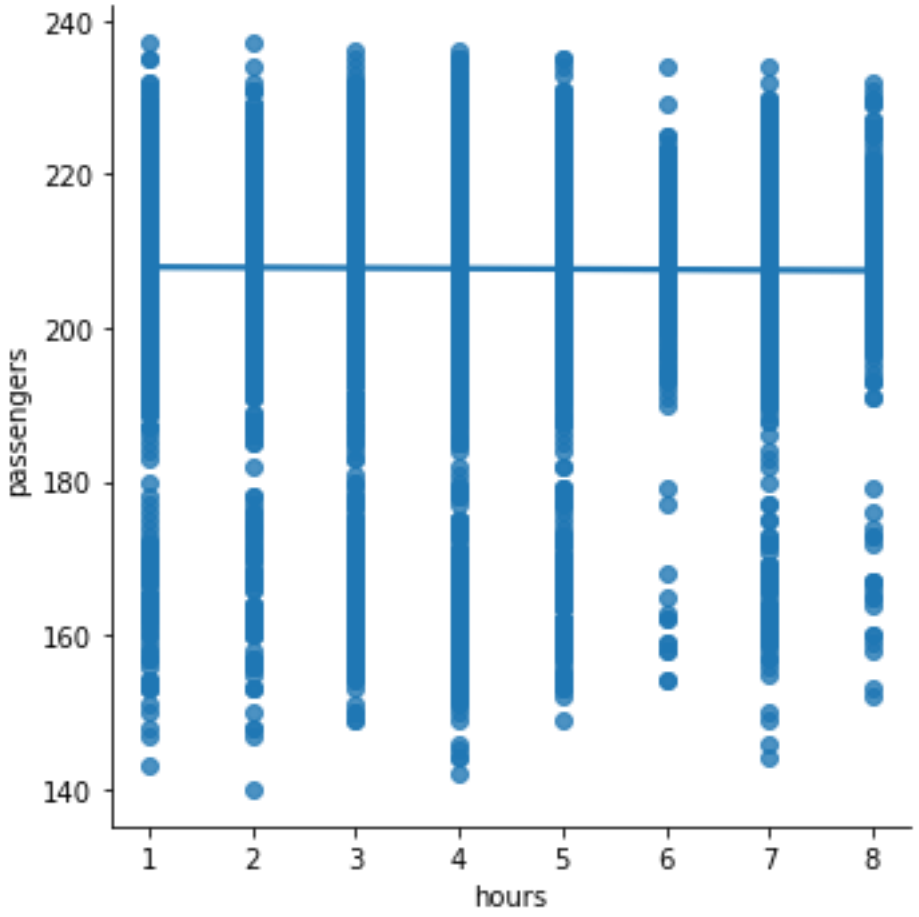
delay time has the highest frequency is 10 min
sometimes, the delay time is revolved around 20 to 30 minutes
rarely, it delays more than 50 mins



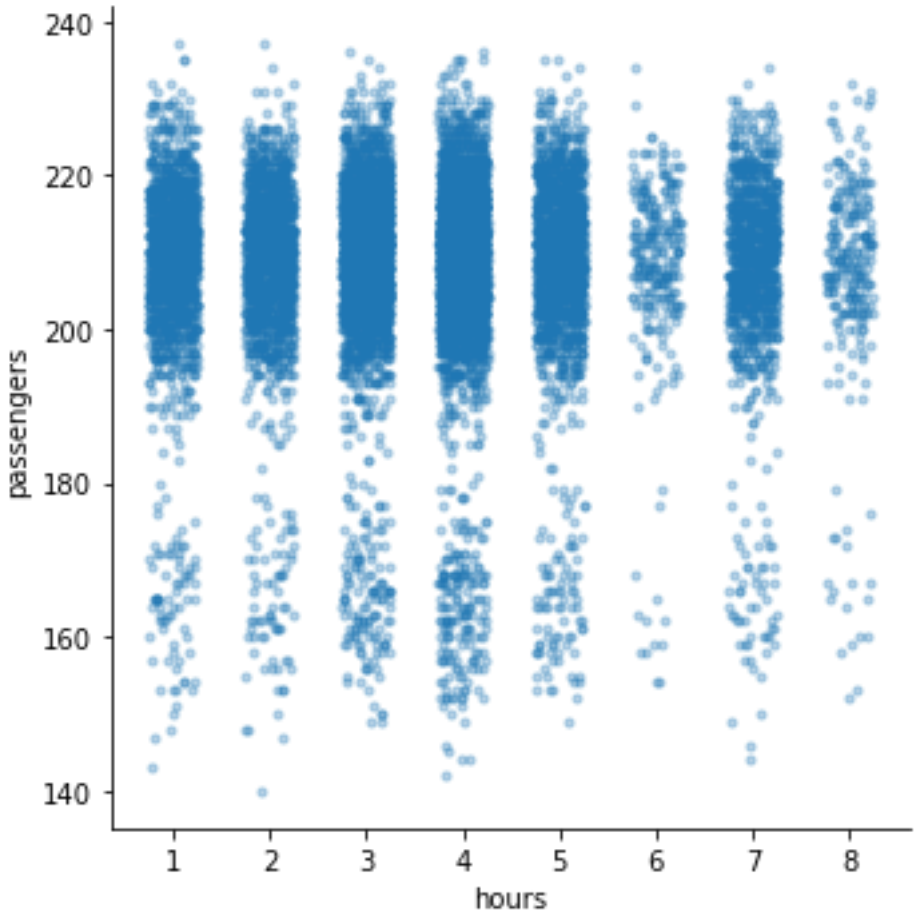
We can see there is an obvious positive linear relationship between coach price and first-class price
It is likely to realize the higher both price options are, the more inflight entertainment and wifi are offered
While the relationship with the inflight meal is ambiguous
Especially, we can confirm that both price options are influenced the most by the weekend
The price booked on the weekend is always more expensive than on normal days
The difference between first class and coach price looks larger than on weekdays

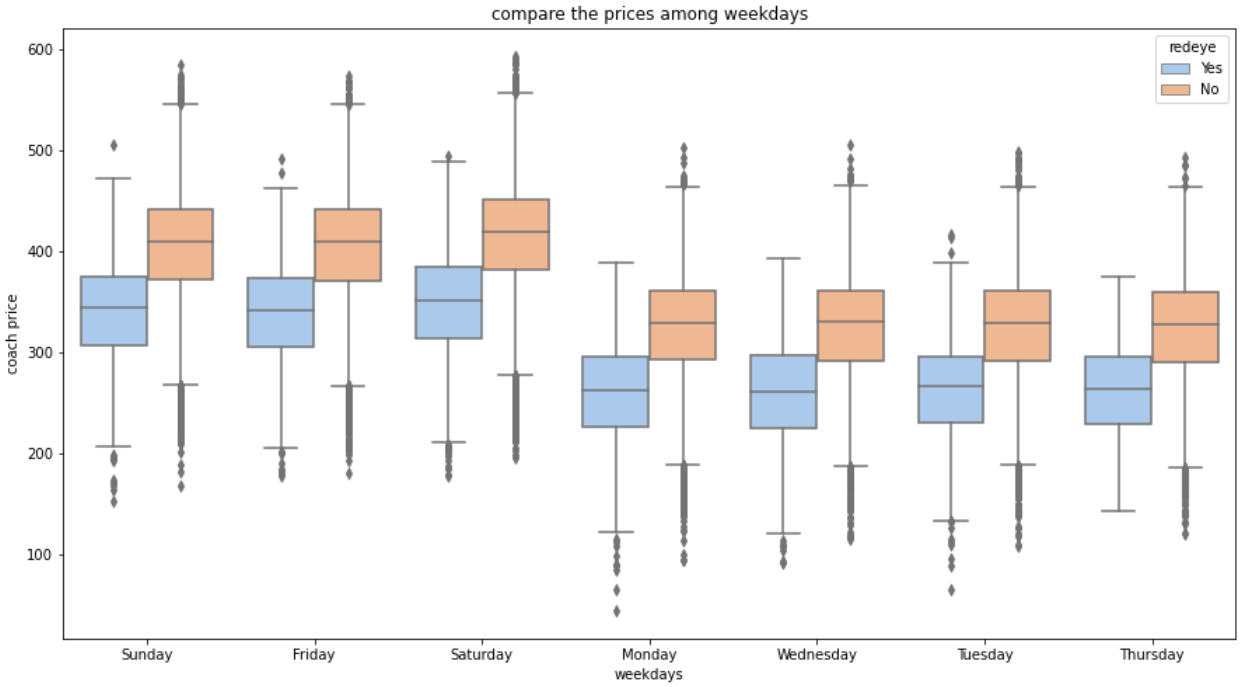


The relationship can be seen more visually by lmplot.
Instead plot all data, one subset can be randomly drawn to see the trend. In this case, 10% of the dataset is randomly drawn



The simple plot above shows that it becomes overfitting when plotting several discrete values
There are many values are missed because the length of the dataset is 129780 flights
In order to handle overplotting of discreteness in the smaller dataset, small variations are added to the local of each point (like the figure below)


240
220
200
180
160
140
passengers
1
2
3
4
5
6
7
8
hours



Generally, whether the flight is taken at the weekend or on the weekdays, the average price of the overnight flight is always lower
As seen before, the average price is more expensive at the weekend
The average costs overnight or in normal time are nearly the same on weekdays and at the weekend