

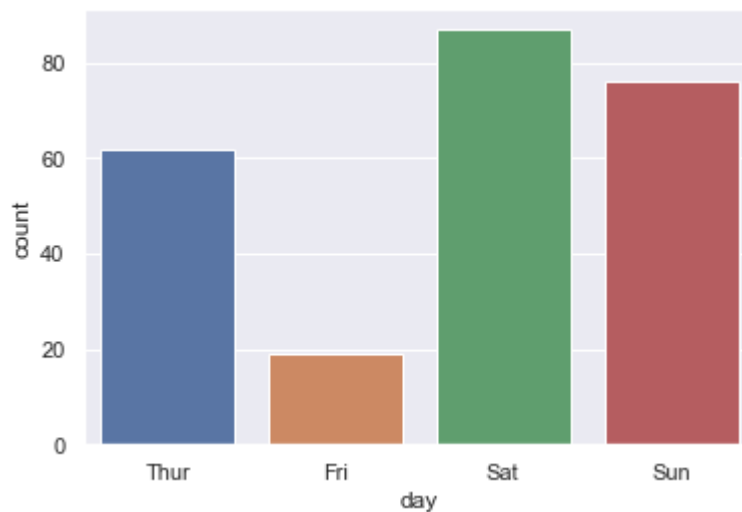
```
In [1]: import seaborn as sns
tips = sns.load_dataset('tips')
tips.head()
```

Out[1]:

	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4

Q1) Which is the busiest week of the day?

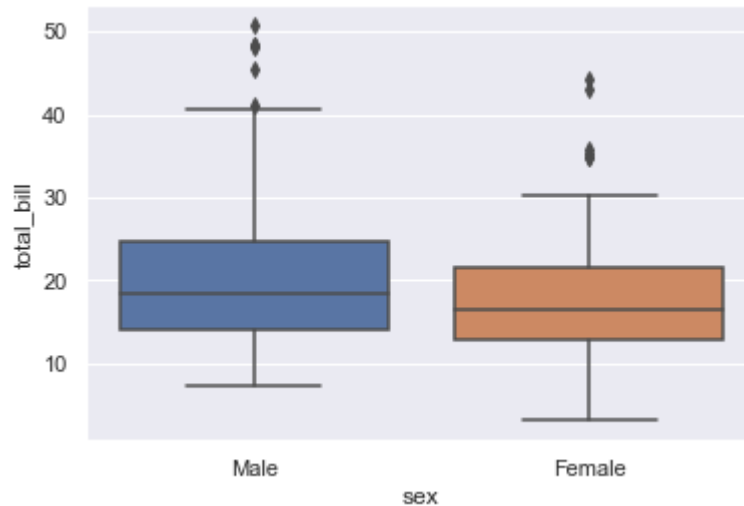
```
In [2]: # since data has day variable, hence Lets plot the number of days for each day in
sns.set_theme(style="darkgrid")
ax = sns.countplot(x="day", data=tips)
```



From the plot above, we can say that the busiest week of the day is Saturday

Q2) How does the total bill vary by sex?

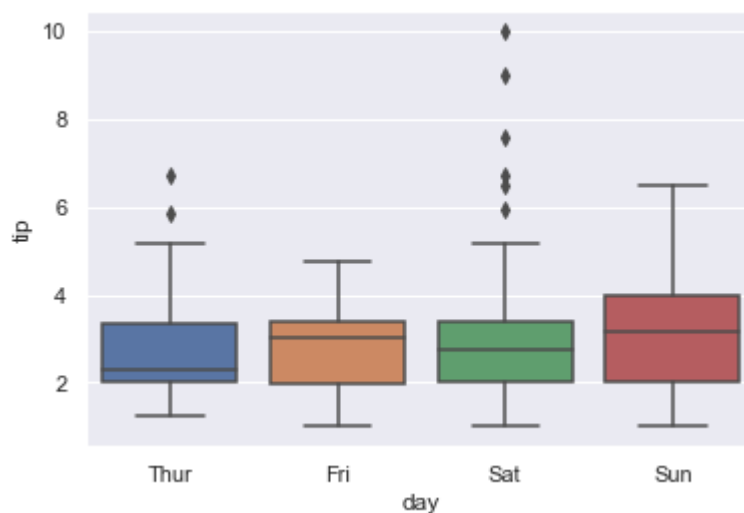
```
In [3]: # Plot a boxplot to understand the relationship between sex and total bill  
ax = sns.boxplot(x='sex', y='total_bill', data=tips)
```



From the plot above, we can say that the Male are spending more than Female

Q3) Plot a box plot to see how Tip amount vary by day of the week?

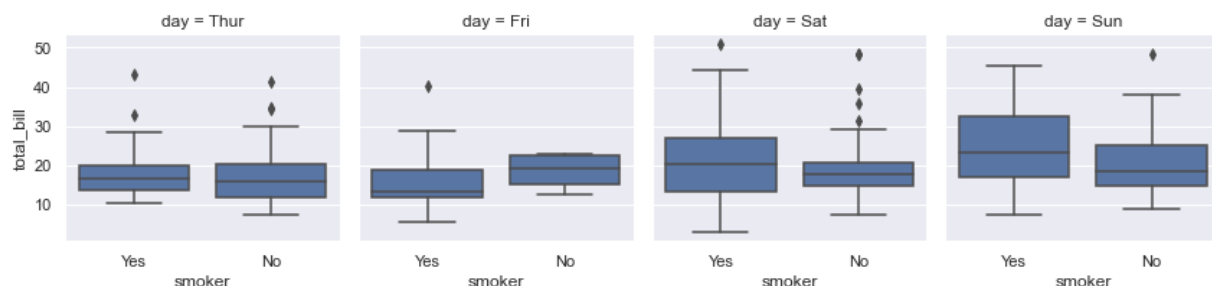
```
In [4]: ax = sns.boxplot(x='day', y='tip', data=tips)
```



On average, tips generally on lower side on Thursday, and on higher side on Sunday Also, Saturday seems to have a lot of outliers, so it could be a lucky day for waiters

Q4) Draw a plot to find out of smokers pay more or less than non-smokers on Weekends? How about Friday?

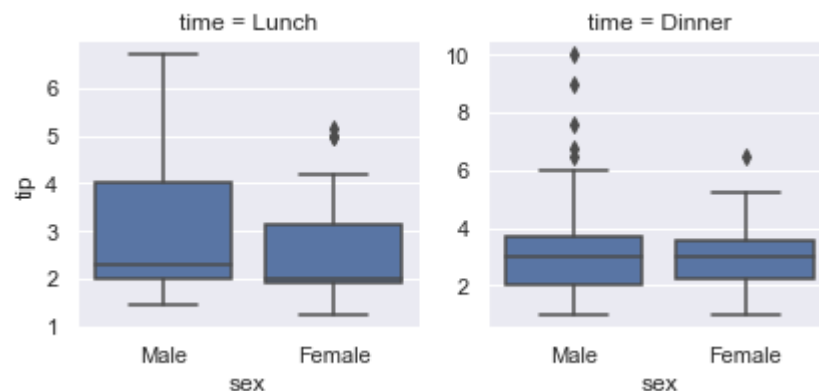
```
In [5]: g = sns.FacetGrid(tips, col="day", col_order=["Thur", "Fri", "Sat", "Sun"])
ax=g.map(sns.boxplot, "smoker", "total_bill", order=["Yes", "No"])
```



Smokers are generally paying more than non-smokers, on weekends.
On Friday, smokers are paying less than non-smokers.

Q5) Draw an appropriate plot to find out, between Male and Female, who tips higher on Dinner ? Is this any different during Lunch?

```
In [6]: g = sns.FacetGrid(tips, col="time", sharey=False)
ax=g.map(sns.boxplot, "sex", "tip", order=["Male", "Female"])
```



Male and Female, on average tip similar(if we compare the median) for dinner. Male, generally have higher variation on tipping in dinner.
During Lunch, Male tip higher than Female.

In []: