Error bars:

Matplotlib line charts and bar charts can include error bars. Error bars are useful for problem solvers because error bars show confidence or accuracy in a set of calculated measurements or values. Bar charts without error bars give the impression that the measured or computed value is known with high accuracy or high confidence.

Method:

To form a barplot with error bars:

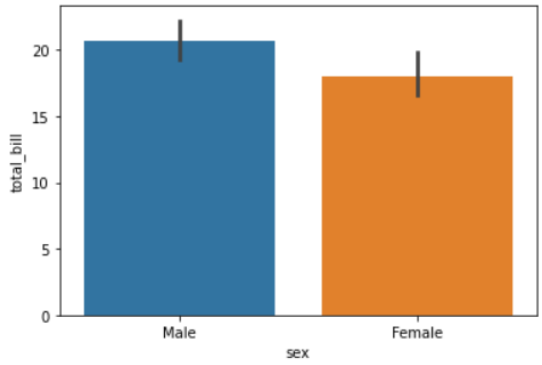
#when using Jupyter notebook

```
In [2]: import numpy as np
        import seaborn as sns
        #%matplotlib inline
```

Plotting and output:

```
sns.barplot(x='sex',y='total_bill', data=tips)
```

```
<AxesSubplot:xlabel='sex', ylabel='total_bill'>
```



By default, the barplot() function draws error bars in the plot with 95% confidence interval. You can remove error bars by passing ci=None argument. ci parameter controls the size of **confidence intervals** to draw around estimated values (Note that if you want to draw the standard deviation of the observations, you should pass ci="sd").

Additionally, you can change the **width of the caps** on error bars with the capsize parameter.