Seaborn barplot

SHARP SIGHT

What you'll learn

- How to use the `sns.barplot()` function

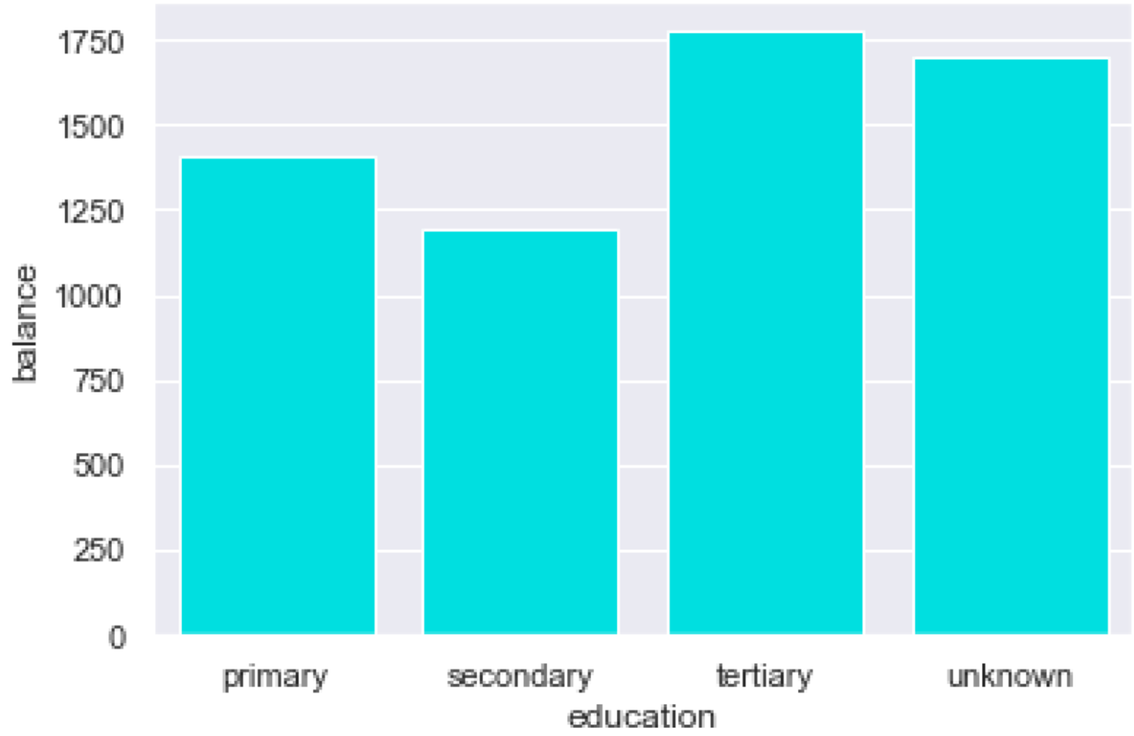
- How to create a bar chart in Seaborn

- How to modify your bar chart
  - change color
  - remove error bars
  - create horizontal bar chart
  - create "dodged" bar chart

Seaborn barplot overview

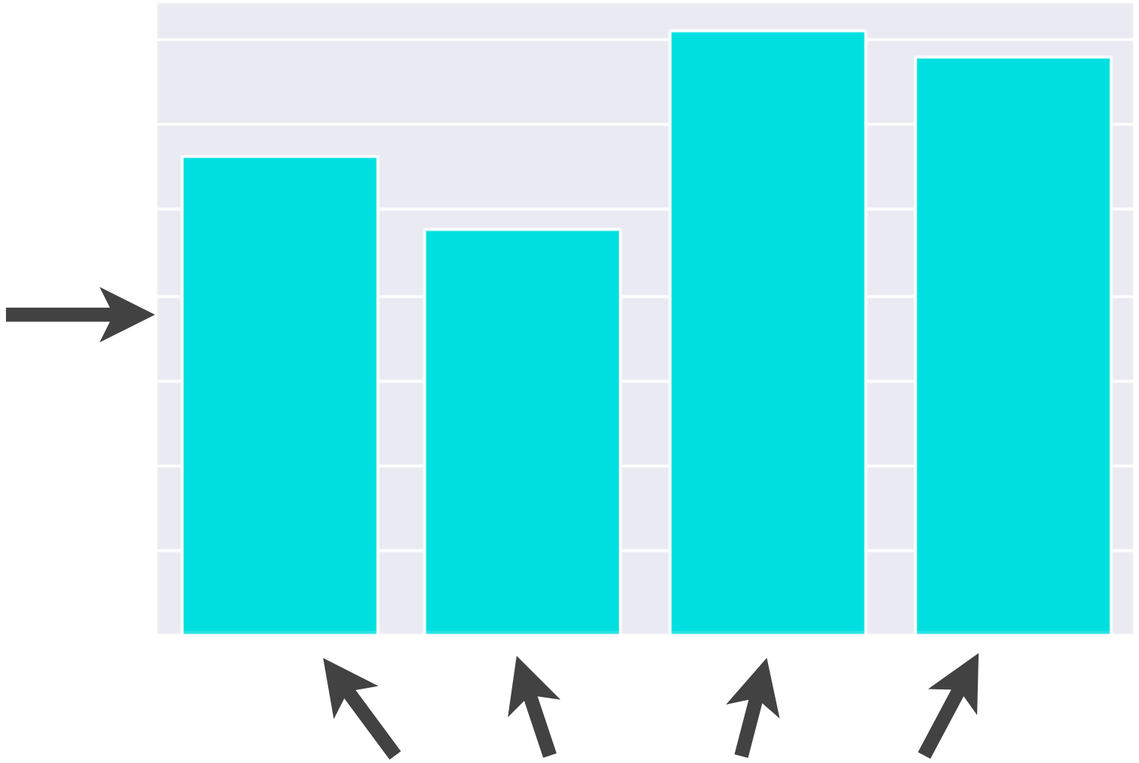
Barplot creates bar charts that show summary statistics

```
sns.barplot(data = bank
            ,x = 'education'
            ,y = 'balance'
            ,color = 'aqua'
            ,ci = None
            )
```



Barplot creates bar charts that show summary statistics

The length of the bars represents the mean value of the y-axis variable value for each category

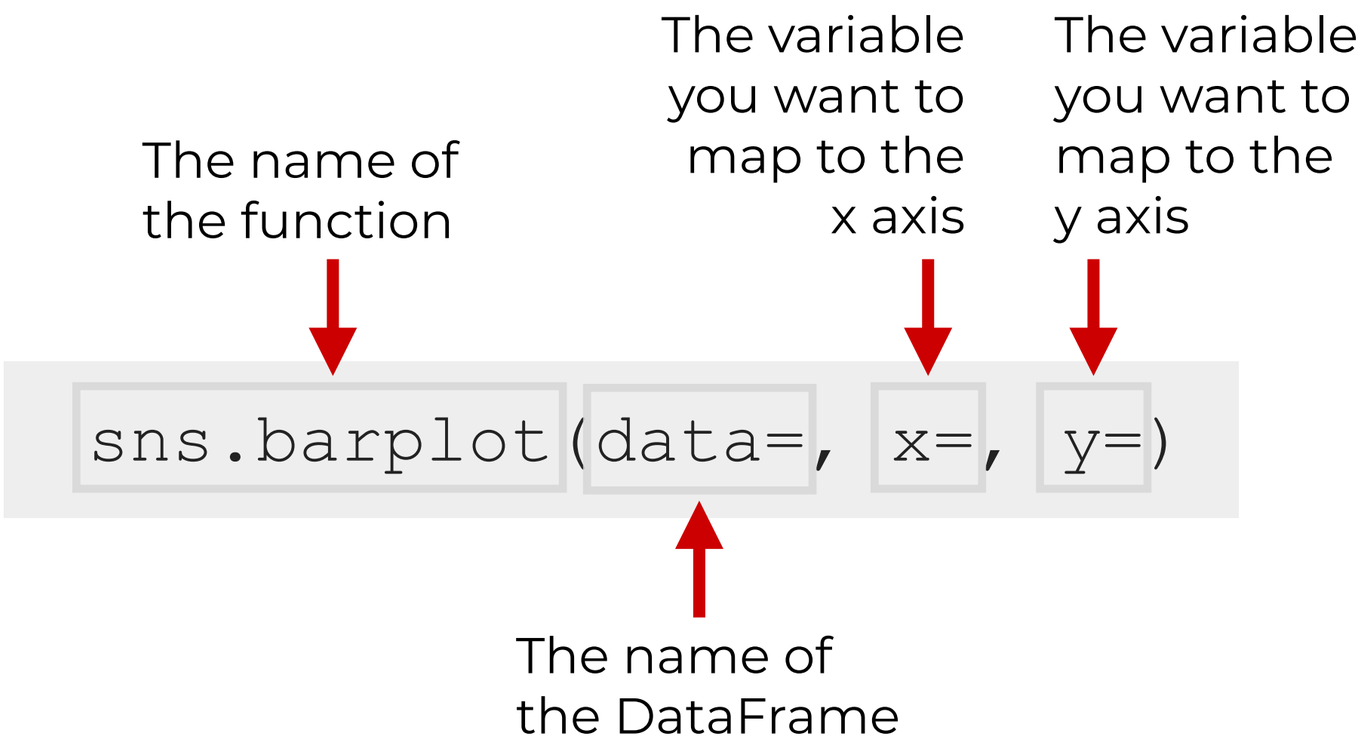


The different bars represent different categories

Note: by default, `sns.barplot()` plots the *mean*, but you can specify different summary statistics

Seaborn barplot syntax

Syntax of sns.barplot



Parameters of Seaborn barplot

The parameters of Seaborn barplot

Parameter	What it does	Format	Default
`data`	Specify DataFrame to plot	DataFrame	
`x`	Map variable to x-axis	variable (numeric or categorical)	
`y`	Map variable to y-axis	variable (numeric or categorical)	
`color`	Specify color of the bars	color name	blue (but depends on settings
`hue`	Map a variable to the color (i.e., change the color of the bars according to the values of a variable	variable (numeric or categorical)	
`ci`	Modify or remove the error bars	float or "`sd`" or `None`	95
`estimator`	Specify the summary statistic to use for the length of the bars	Name of a statistical function (`mean`, `median`, etc)	mean

Note: `sns.barplot()` has many more parameters, but these are the most commonly used

Examples of sns.barplot

Example 1: a simple bar chart

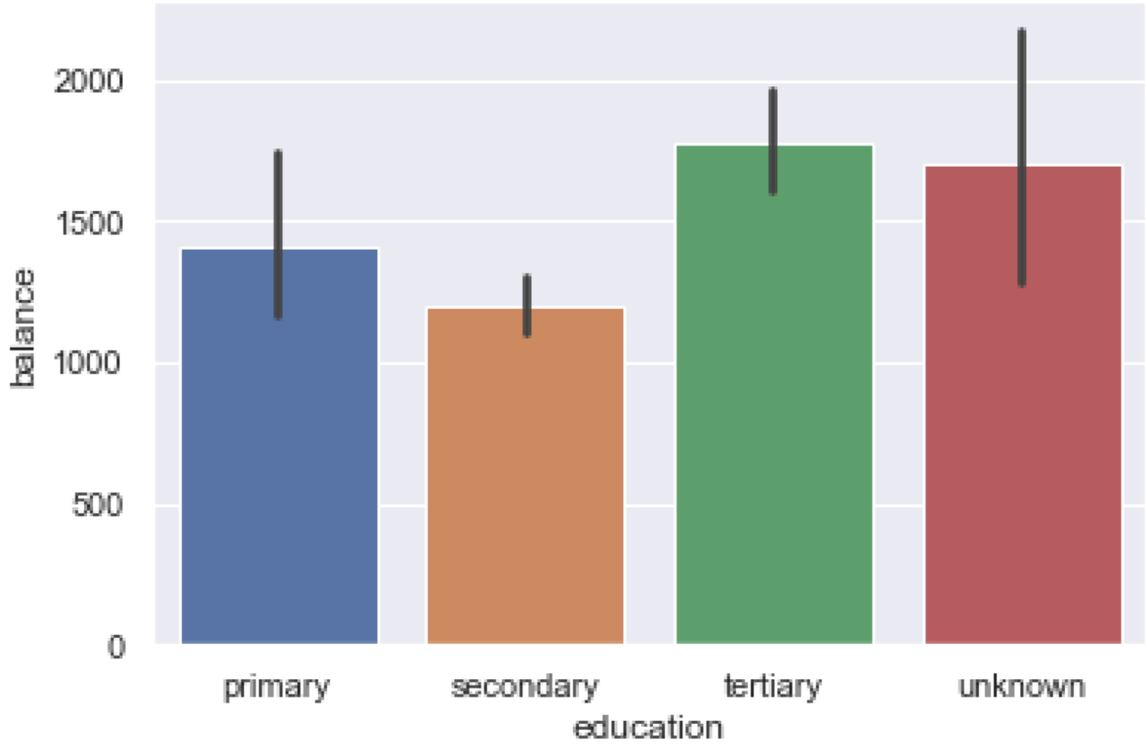
```
sns.barplot(data = bank
            ,x = 'education'
            ,y = 'balance')
```

Here, we're specifying the DataFrame to plot

We're also mapping a categorical variable to the x-axis and a numeric variable to the y-axis

Example 1: a simple bar chart

```
sns.barplot(data = bank
            ,x = 'education'
            ,y = 'balance')
```



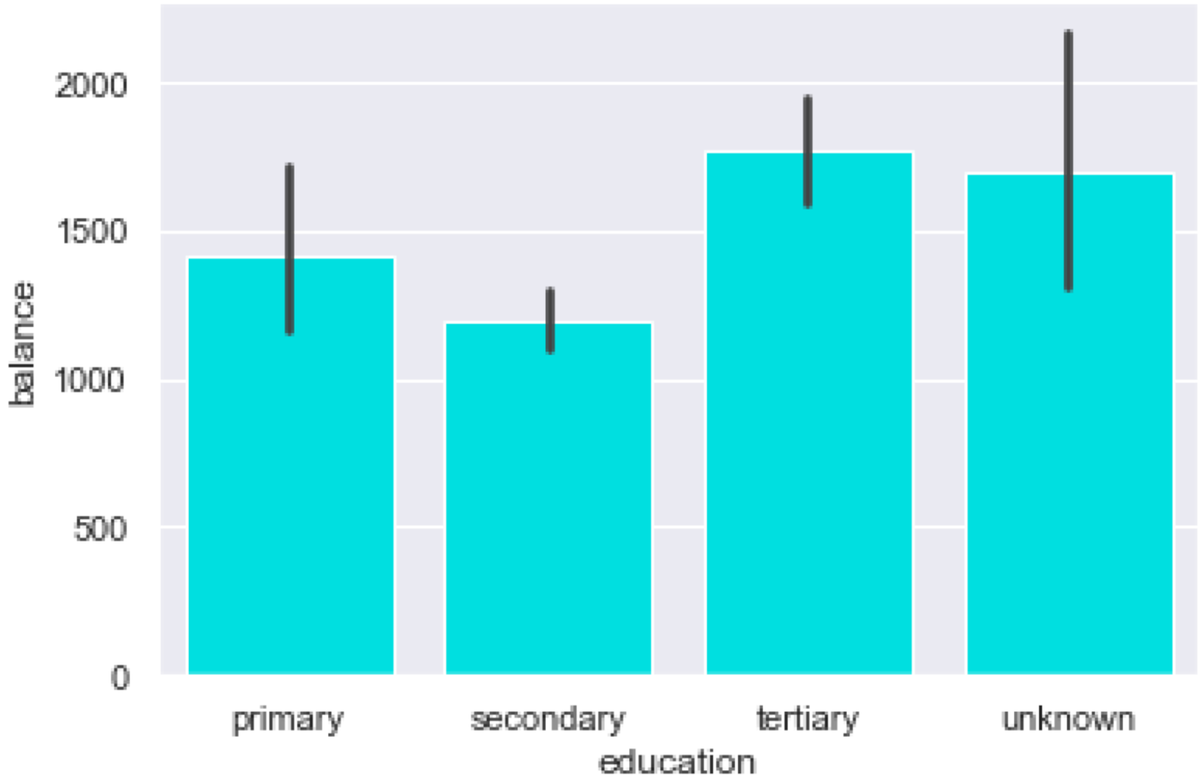
Example 2: change the color of the bars

```
sns.barplot(data = bank
            ,x = 'education'
            ,y = 'balance'
            ,color = 'aqua'
            )
```

Here, we're changing the color of the bars to `aqua`

Example 2: change the color of the bars

```
sns.barplot(data = bank
            ,x = 'education'
            ,y = 'balance'
            ,color = 'aqua'
            )
```



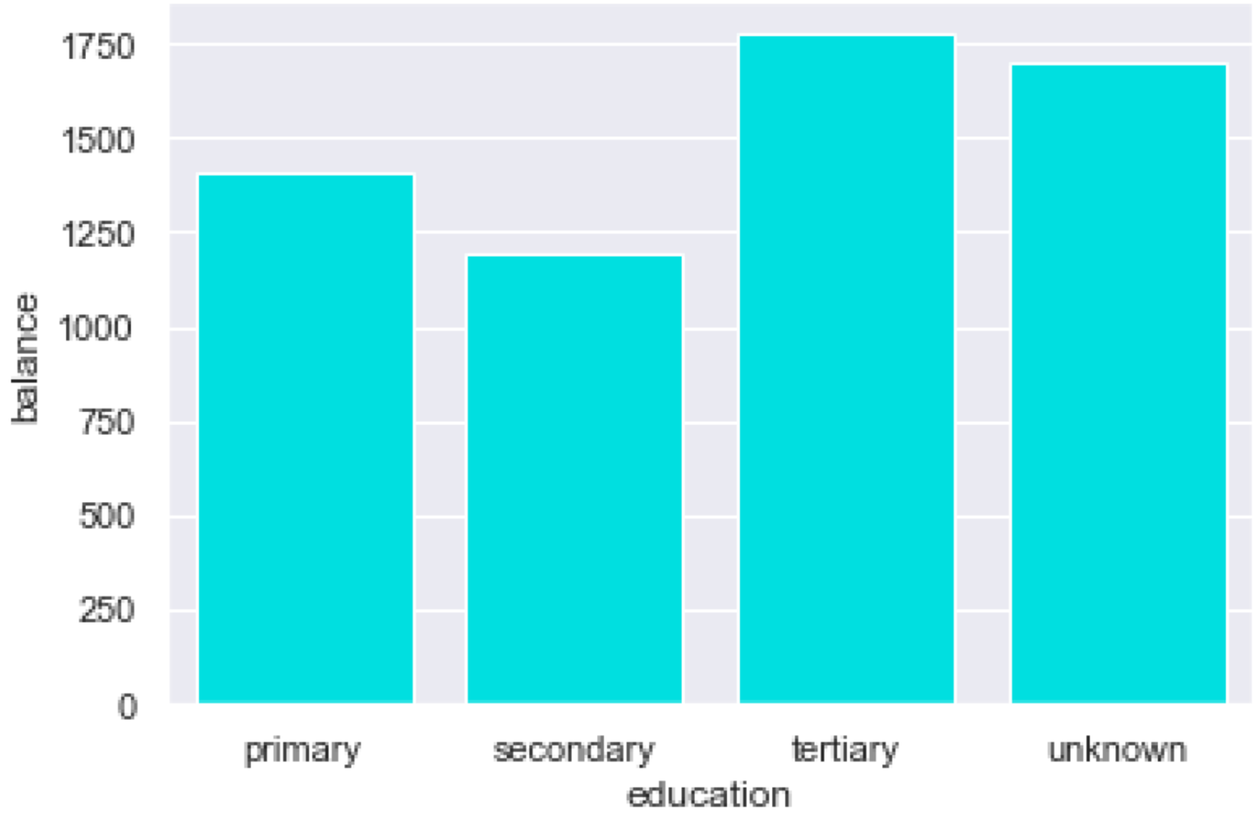
Example 3: remove the error bars

```
sns.barplot(data = bank
            ,x = 'education'
            ,y = 'balance'
            ,color = 'aqua'
            ,ci = None
            )
```

Setting `ci = None` remove the error bars from the end of each bar

Example 3: remove the error bars

```
sns.barplot(data = bank
            ,x = 'education'
            ,y = 'balance'
            ,color = 'aqua'
            ,ci = None
            )
```



Example 4: create a horizontal bar chart

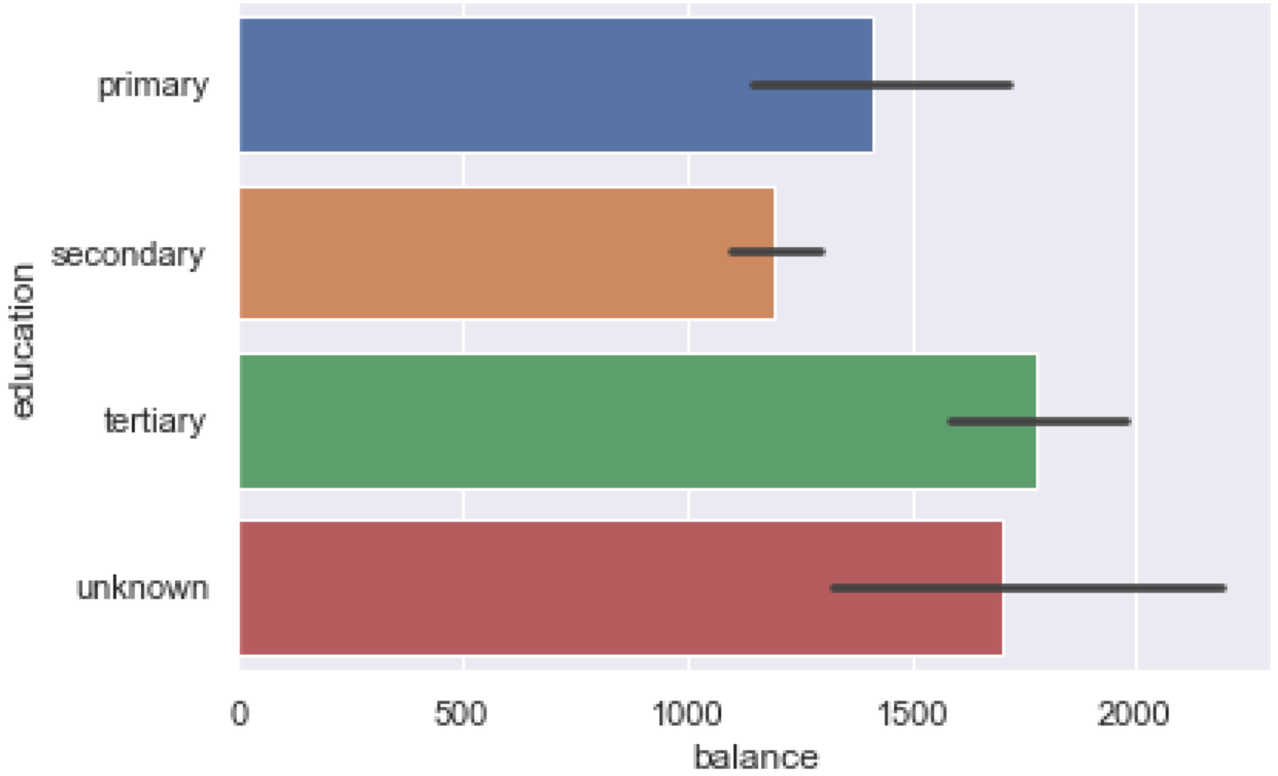
```
sns.barplot(data = bank
            ,y = 'education'
            ,x = 'balance'
            )
```

Here, we're mapping our categorical variable to the y-axis and the numeric variable to the x-axis

This "flips" the chart and creates a horizontal bar chart

Example 4: create a horizontal bar chart

```
sns.barplot(data = bank
            ,y = 'education'
            ,x = 'balance'
            )
```



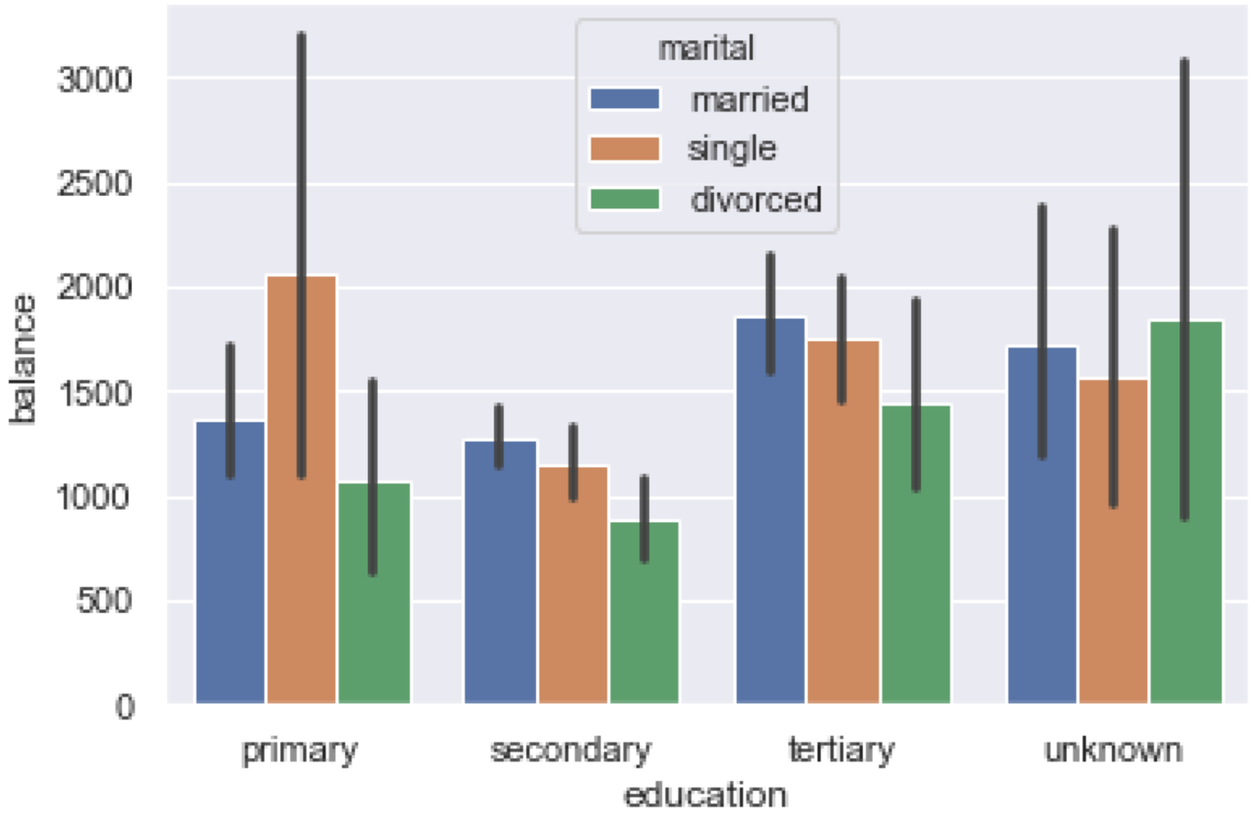
Example 5: dodged bar chart

```
sns.barplot(data = bank
            ,x = 'education'
            ,y = 'balance'
            ,hue = 'marital'
            )
```

Mapping a second categorical variable (`marital`) to the `hue` parameter will show categories within a category on the x-axis

EXAMPLE 5: DODGED BAR CHART

```
sns.barplot(data = bank
            ,x = 'education'
            ,y = 'balance'
            ,hue = 'marital'
            )
```



Recap

Recap of what we learned

- How to use the `sns.barplot()` function

- How to create a bar chart in Seaborn

- How to modify your bar chart
  - change color
  - remove error bars
  - create horizontal bar chart
  - create "dodged" bar chart

- **Next steps**: watch the code walkthrough video to see these examples and follow along