KEY_Practice15_Basic_Stats_II

February 4, 2020

1 Practice with Statistics (Part 2)!

Remember: * Count statistics are a useful way of summarizing the items in a set of measurements. * `Counter` provides a useful class for counting lists of items. * Percentages tell you what fraction of a list consists of a given category.

First, import numpy and pandas and Counter:

[0]:
```
# load numpy and pandas and Counter
```

[0]:
```
# mount Google Drive
from google.colab import drive
drive.mount('/content/gdrive')
path = '/content/gdrive/My Drive/SummerExperience-master/'
```

Load in the sample data from the Lesson:

[0]:
```
# load the csv file: 'SampleData/detroit_weather.csv'
```

[0]:
```
# Print the beginning of the table using the head function to remind you of the␣
↪format:
```

During the lesson, we looked at the rates of snow occurance, now we will repeat the same analysis for the occurance of rain.

[0]:
```
# Count the number of days that have been raining since 1950
# and the number of days that haven't been
```

[0]:
```
# What percentage of days since 1950 have been spent raining?
```

[0]:
```
# How man days have been spent raining AND snowing?
# HINT: use a `and` statement in pandas
```

[0]:
```
# What percentage of days have been spent raining AND snowing?
```

[0]:
```
# Calculate the percentage of days during the month you were born that were␣
↪spent raining:
```

CHALLENGE In the next lesson, we will look at climate change between the early 20th century and today, can you calculate a difference in days spent snowing between the 1950's and 2000's?

[0]:
```
# Calculate a change in the percentage of days spent snowing
# during the 1950's and 2000's
```

By how much did the percentage change from the 1950's to the 2000's? Did it increase or decrease?

Nice job! You just practiced:

- Turning categorical variables into counts using `Counter`
- Calculating percentages from count variables
- Interpreting the results from basic statistical analysis