DataCamp has an intermediate R tutorial now

* Variables vs functions
  + Functions use parentheses to tell R it’s a function
  + In R, anything within parentheses is evaluated first
* Data Exploration
  + Numerical
    - Compact summary of data
    - Small set of numbers
    - Creating summary statistics
  + Graphical
    - Better understanding of data
    - Graphs and plots used to represent and understand trends in data
  + Center of data
    - Mean, median, mode
  + Spread/dispersion
    - Range (min-max), interquartile range, variance, standard deviation
  + Center and spread are easy to numerically understand
  + Other quantities like skew, kurtosis, and bi-modality are easier to understand through graphical demonstrations
* Associations
  + Does not imply causality or a specific relationship
  + Can graph using scatterplots or pairplots
  + Can also numerically analyze with correlation coefficients
  + Correlation Coefficients
    - Limitations
      * 2 variables
      * Spearman and Pearson correlations are limited to monotonic functions
      * No magnitude
      * Cannot deal with multi-collinearity
    - Range is -1 to 1
      * -1 is perfect negative correlation, 1 is perfect positive correlation
      * Perfect correlations mean you can predict without unexpected variables or noise impacting the results
      * 0 corr means x tells us nothing about y
    - Pearson correlation coefficient
      * Quantifies linear associations
    - Spearman
      * Quantifies non-monotonic association
        + Monotonic means a function that is either always increasing or decreasing
        + Non-monotonic means the function can increase or decrease in one graph