SECTION 6: METHODS AND FUNCTIONS, 2 hours 54 mins, 30 parts

- **7/29 Interactions between Python Functions**
    - **-> Python notebooks contain multiple functions interacting with each other**
        - -> creating multiple functions to mimick the red ball monte game (a ball under one of three cups) <- so a Python list with two empty strings and then one string with 'o' for the ball
        - -> this is to show multiple functions interacting with each other

    - **-> in the .ipynb file**
        - from random import shuffle <- this is importing shuffle
        - example = [1,2,3,4,5,6,7,8,9,10]
        - shuffle(example) <- this stores example as example all randomly shuffled (it's returning a NoneType, the shuffled list has been stored as example

        - defining the first function <- **when problem solving, you can define multiple functions at each state of the problem solving process, then combine them for the result, which you interpret etc**
            - def shuffle_list(mylist):
                - shuffle(mylist)
                - return mylist <- so we've defined a function which takes the input list and shuffled it (it returns the same list, shuffle

            - **-> then she's defined a second function for the red ball monte game**
                - inside the function
                    - guess = ''
                    - **while guess not in [,,,]: <- it keeps on asking for a guess, until it's in that list**
                        - guess = input("...")
                    - -> then return int(guess)
                    - -> so this function takes a guess

            - **-> then she defines a third function the two functions**
                - -> def check_guess(mylist,guess):
                    - if mylist[guess] == 'o':
                        - print("Correct")
                    - else:
                        - print("Wrong")

            - **-> then she combines all three functions into a final function**
                - **-> the JN is basically a giant calculator for problem solving -> putting different parts of the problem into different functions makes the problem solving thought process clearer**
                - **-> this allows for more complex problem solving**