

RT-ED Python Homework Day 03

collections with loops and conditions

- 1) Write a program that reads a positive integer from the user, if the input is not a positive integer, write an error message and read again until a valid input is given.
- 2)
 - a) Create a list of words (e.g. fruits). ask the user for a string input and then tell them if it's in the list or not.
 - b) Do the same as the question above but replace the list with a dictionary (key = first character of the fruit).
- 3)
 - a) Create a list of pairs username & password. create a simple terminal login interface (you can use `getpass.getpass()` to read password without printing the input)
 - b) Do the same but replace the list with a dictionary (with username as the key)
- 4) Read a list of positive integers from the user until an invalid input is given. add the numbers to a list, and then:
 - a) print the list in a single line
 - b) print the list's sum
 - c) print the maximum value
 - d) print only the even numbers in a single line
 - e) print only the odd numbers in a single line
 - f) print whether there are more even or odd numbers.
 - g) print the list's product (the multiplication of all values in the list)
 - h) **challenge:** print the median (note that you need to consider if the list's length is even or odd).
- 5)
 - a) Create a program that read width and height from the user and prints a rectangle of that dimension (on the terminal using `**` characters)
 - b) Do the same but make the rectangle hollow (the inside of the rectangle is made of space characters)