Programming with Python

Lab Assignment 3

Note: Add docstring to all the functions

1. Create a function that can accept two arguments - name & age and display them.

2. Define a function to check whether a given number is prime or not, and display appropriate messages.

3. Define a function to check whether a given number is prime or not, and return True if number is prime else return False.

4. Define a function overlapping() that takes two lists and returns True if they have at least one member in common, False otherwise.

5. Write a function called nested_sum() that takes a nested list of integers and adds up the elements from all the lists and returns the sum.

6. Write a function adder() which accepts a random number of arguments of any data type (int, float, boolean, string) and returns the sum of all the int and float values in it.

   For eg: adder(1, 2, True, 9, "mango", 5.0) should return 17.0

7. Write a program to create a recursive function to calculate the sum of all the numbers from 1 to n. Pass value of n to the function by accepting it from the user.

8. Write a function centered_average(),in a module, that returns the "centered" average of a list of integers. Centered average is the average of the values ignoring the largest and smallest values in the list. If there are multiple copies of the smallest value, ignore just one copy, and likewise for the largest value. Input list should be of length 3 or more. Import this function from the module and call it in the jupyter notebook.

   centered_average([1, 2, 3, 4, 100]) → 3

   centered_average([1, 1, 5, 5, 10, 8, 7]) → 5

   centered_average([-10, -4, -2, -4, -2, 0]) → -3