CS2204
Assignment No. 5

Purpose: Gain experience in writing recursive functions.

Assignment: Write several small recursive functions. Even though most of the functions could easily be computed using iterative methods, you must create solutions that are recursive.

Requirements and notes:

1. You must use recursive programming techniques.

2. You will be provided with a template Python file called recursion.py. Create a new python project in your IDE, copy the provided file into the project, and refresh the project. You will have to modify the given file to provide the required functionalities. Submit the modified file recursion.py for grading.

3. Use proper programming style.

4. All functions should be properly documented with pre- and post-conditions. This has been done for you for the supplied functions.

5. When a value is nonnegative, that means it is either positive or zero. Not considering zero is a source of many errors.

6. Some functions require that you manipulate string objects. For the core logical functionality, the methods need to use only the functions of the normal Python list, as that is how strings are treated in Python.

7. Reminder: you are expected to *do your own work*. You may discuss any function with a classmate only to the extent that you understand what the function should be doing – you should not discuss recursive solving strategies.

Let the MAGIC begin!!