Assignment 02
Py4AIML

Problem Statement 01

Implement a program which returns the compressed string of a given string

Explanation

Reduce the length of the input string by replacing multiple continuous occurrences of the same character by a number and the character.

Example

Input: "aaa"

Output: "3a"

Input : "qqqprqcccaa"

Output: "3qprpq3caa"

Problem Statement 02

Find whether a given string has parentheses nested properly.

Implement a function which accepts a string as an argument that contains a text. Find whether the parentheses inside it are properly nested.

Note:

The string will only contain open or/and closed parenthesis.

Example:

input – ((()))

OutPut – True

input – ()()

OutPut – True

input – (()))

OutPut – False

Problem Statement 03

An anagram is a word or phrase formed by rearranging the letters of a different word or phrase, typically using all the original letters exactly once.

For example, the word anagram can be rearranged into nag a ram, or the word binary into brainy or the word adobe into abode.

Given a list of strings, Implement a function(s) which will group anagrams together.

Example:

Input: ["eat", "tea", "tan", "ate", "nat", "bat"],
Output:
[
  ["ate","eat","tea"],
  ["nat","tan"],
  ["bat"]
]

Note:

- All inputs will be in lowercase.
- The order of your output does not matter.

Happy Programming!!