

COSC 2436 lab 1: Recursion

1. Introduction

You will create a C++ program to find all unique permutation of a given string. Your program will read an input file contain a single string and output the all the possible unique permutation of that string using recursion method. The purpose of this lab is for you to practice recursion and string manipulation.

2. Input and Output

a. Input file

The input file will contain a single string.

An input can be **empty**, in this case your output should be “no permutation”.

There will be no spaces, numbers, or special characters in the string.

b. Output file

Output should contain all the **unique** permutation of the given string

Output needs to be in alphabetical order

3. Examples

input1.txt

mn

output1.txt

mn

nm

input2.txt

abc

output2.txt

abc

acb

bac

bca

cab

cba

input3.txt (empty)

output3.txt

no permutation

4. Turn in your lab assignment

Lab 1 needs to be turned in to our Linux server, follow the link here

https://rizk.netlify.app/courses/cosc2430/2_resources/

Make sure to create a folder under your root directory, name it lab1 (name need to be lower case), only copy your code to this folder, no testcase or other files needed.

PS: This document may have typos, if you think something illogical, please email TAs for confirmation.