

## COSC2436 hw1: Recursion

### 1. Introduction

Given a list of numbers between 0 to 10 as input, you will need to implement a C++ program to recursively find the greatest permutation of the given numbers.

### 2. Input files

- The input file will have a few numbers in one line
- This file cannot be empty.
- The numbers are separated with an " " (space), the

Example of a valid input: 9 8 7 6

### 3. Output files

- The output file should display the greatest number that is possible to make with the given numbers.

Example: 9876

### 4. Requirements

- You must use **recursion** in your solution
- Homework is individual. Your homework will be automatically screened for code plagiarism against code from other students and code from external sources including CHATGPT's different solutions. Code that is copied from another student (for instance, renaming variables, changing for and while loops, changing indentation, etc. will be treated as a copy) will be detected and result in a "0" in this homework. The limit is 80% similarity.

### 5. Turn in your homework

- Homework 1 needs to be turned in to our Linux server.
- Make sure to create a folder under your root directory, name it "hw1" (case sensitive), and copy all your .cpp and .h file to this folder, "ArgumentManager.h" need to be included as well.
- This document may have typos, if you think something is illogical, please email TAs for confirmation.