

## COSC 2430 lab 4: Priority Queue

### 1. Introduction

You will create a C++ program that can organize the order of tasks base on their priority. In a priority queue, a task with high priority is served before a task with low priority. A task said to have a higher priority if it took less amount of time to complete.

### 2. Input and Output

#### a. Input file

- Each line in the input file will contain a string and a number, separated by a space
- The string is the name of the task that you need to organize
- The number will be the time needed to complete that task
- Input might have empty line (ignore empty line)

#### b. Output file

- Output the task in order according to their priority
- If two or more tasks have the same priority, organize them base on the order that they were queued

### 3. Example Output

input1.txt

Answer Phone 1  
Booking Appointment 0.5  
Organize Documents 2  
Schedule Meeting 0.5  
Data Entry 4

output1.txt

Booking Appointment  
Schedule Meeting  
Answer Phone  
Organize Documents  
Data Entry

### 4. Turn in your lab assignment

Lab 4 needs to be turned in to our Linux server, follow the link here

[https://rizk.netlify.app/courses/cosc2430/2\\_resources/](https://rizk.netlify.app/courses/cosc2430/2_resources/)

Make sure to create a folder under your root directory, name it lab4 (name need to be lower case), copy your code and argumentmanager.h 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.