

# CSE240 Spring 2017 Project 4

Due time: Friday, March 17th, 5:00pm

## 5-1 Motivation:

This project is to implement Priority Queue, using array or a complete binary tree structure. Details about priority queue can be found from <http://www.cse.cuhk.edu.hk/~taoyf/course/2100sum11/lec8.pdf>

## 5-2 Requirements:

You should name your Priority Queue class as PQ. The queue must be able to hold unlimited number of integers. It has two key operations: Push and Pop, which should have the time complexity of  $O(\log n)$ .

## 5-3 Files to turn in:

You need to turn in four files: **makefile**, **main.C**, **PQ.C**, **PQ.h**. You should have a **main.C** that reads in or generates some integers, pushes them into the PQ one by one, and pops and prints them until the PQ is empty.

## 5-4 Grading

The total points is 12, you will get full credit if you correctly implement it using tree structure, 6 points if you correctly implement it using array. No late turn in is acceptable, any late turn in will be given 0 point.

Your code must be compilable on Linux/Unix, **any code that cannot be compiled by g++ will automatically get ZERO point.**