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1  /*
2  Filename: p6.h
3  Author(s): Zachary Rea and Parker Ross
4  Date: 26 February 2023
5  Description: The header file for p6
6  */
7  #ifndef __P6_H
8  #define __P6_H
9
10 #include <string>
11 //*****
12
13 class iPQ {
14     private:
15         int *values;
16         int qCount;
17         int qCapacity;
18
19         int parent(int index) const;
20         //function fo returning parent's index for given index
21         int left(int index) const;
22         //function for returning index of left child
23         int right(int index) const;
24         //function for returning index of right child
25         void printIt(int ind, int count) const;
26         //function for printing by level in tree
27         void swap(int x, int y);
28         // function for swapping two integers
29         void bubbleUp(int index);
30         void heapify(int index) ;
31
32     public:
33         //constructor
34         iPQ(int n = 100);
35         //De-constructor
36         ~iPQ();
37         bool enq(int v);
38         //function for Enqueueing v into iPQ
39         bool deq(int &v);
40         //function for removing & returning max value in PQ
41         void printIt() const;
42         //function for removing all entries from iPQ
43         void clear();
44         //function for returning number of entries
45         int count() const;
46 };
47 #endif

```