

```

1  /* ComplHeapTest.c */
2  #include <stdio.h>
3  #include <string.h>
4  #include <stdlib.h>
5  #include <malloc.h>
6  #include "ComplHeap.h"
7
8  static int StringCmp(const void *keyAddr, const void *elemAddr)
9  {
10     char *p1 = *(char **)keyAddr;
11     char *p2 = *(char **)elemAddr;
12     return strcmp(p1, p2);
13 }
14 static void StringFree(void *elemAddr)
15 {
16     free(*(char **)elemAddr);
17 }
18
19 int main()
20 {
21     PQUEUE pq;
22     PQueueNew(&pq, sizeof(char *), 16, StringCmp, StringFree);
23     char *name1 = strdup("pc");
24     char *name2 = strdup("jerry");
25     char *name3 = strdup("hada");
26     char *name4 = strdup("sunanzhi");
27     char *name5 = strdup("zhaoyun");
28     char *name6 = strdup("xiejinying");
29     char *name7 = strdup("yuzhiqiang");
30     char *name8 = strdup("liyunlong");
31     char *name9 = strdup("luyuebin");
32     char *name10 = strdup("lihui");
33     char *name11 = strdup("renwenjie");
34     char *name12 = strdup("chenzhaojie");
35     char *name13 = strdup("zhangyouhe");
36     PQueueInsert(&pq, &name1);
37     PQueueInsert(&pq, &name2);
38     PQueueInsert(&pq, &name3);
39     PQueueInsert(&pq, &name4);
40     PQueueInsert(&pq, &name5);
41     PQueueInsert(&pq, &name6);
42     PQueueInsert(&pq, &name7);
43     PQueueInsert(&pq, &name8);
44     PQueueInsert(&pq, &name9);
45     PQueueInsert(&pq, &name10);
46     PQueueInsert(&pq, &name11);
47     PQueueInsert(&pq, &name12);
48     PQueueInsert(&pq, &name13);
49     if (!PQueueEmpty(&pq))
50     {
51         printf("pq size is %d\n", PQueueSize(&pq));
52         char *eMax;
53         if (0 == PQueueGetMax(&pq, &eMax))
54         {
55             printf("pq max data is %s\n", eMax);
56         }
57     }
58     while (!PQueueEmpty(&pq))
59     {
60         PQueueDeleteMax(&pq);
61         printf("pq size is %d\n", PQueueSize(&pq));
62         char *eMax;
63         if (0 == PQueueGetMax(&pq, &eMax))
64         {
65             printf("pq max data is %s\n", eMax);
66         }
67     }
68     PQueueDispose(&pq);
69     return 0;
70 }

```