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1  /*
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3   ECE373 (Spring 2017)
4   Assignment #6 Userspace Program
5
6   This program will read from the node file to get
7   an integer indicating index of head and tail for
8   the receive descriptor
9  */
10 #include <stdio.h>
11 #include <stdlib.h>
12 #include <stddef.h>
13 #include <fcntl.h>
14 #include <string.h>
15 #include <unistd.h>
16
17 int main(void)
18 {
19     int ret, fd;
20     int readval;
21     unsigned int head_tail;
22
23     // Open file made with mknod
24     fd = open("/dev/hw6_interrupts", O_RDWR);
25     if (fd < 0)
26     {
27         fprintf(stderr, "Error opening file.\n");
28         return -1;
29     }
30
31     // Get head and tail index
32     ret = read(fd, &head_tail, 0);
33     if (ret < 0)
34         fprintf(stderr, "Error reading head and tail\n");
35
36     printf("HEAD: %d\nTAIL: %d\n", (head_tail >> 16) & 0xFFFF, (head_tail & 0xFFFF));
37
38     // Done with file. Close.
39     close(fd);
40     printf("End of program.\n\n");
41     return 0;
42
43 }
44
```