DUE DATE: **May 31, 2024**

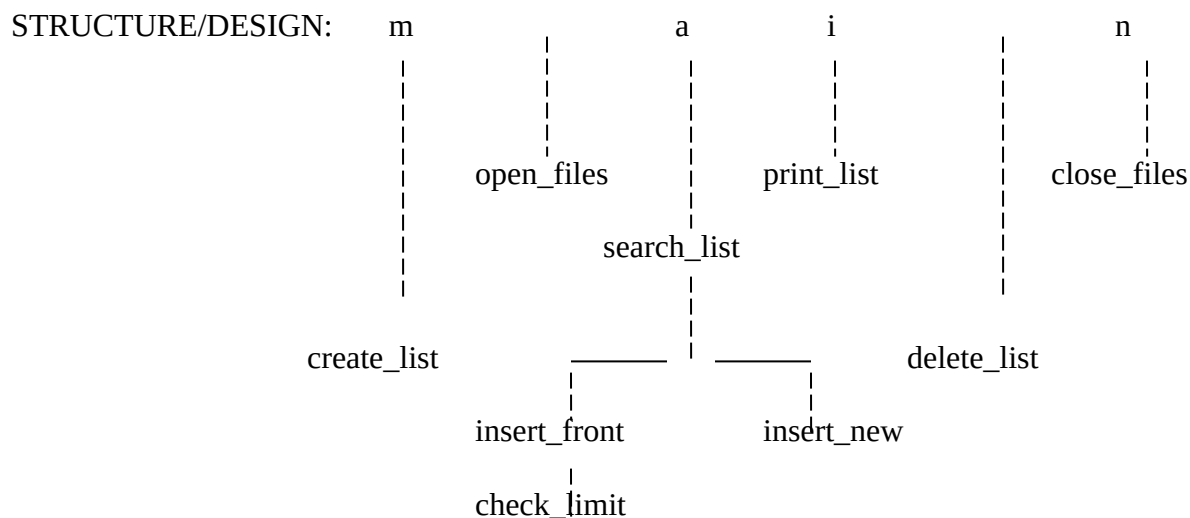| | |
|---|---|
| AUTHOR: | Richu James & Sai Niranjan |
| COURSE: | 20CYS113 |
| DATE: | 31-05-2024 |
| FILES USED: | selforg.h<br>main.c<br>io.c<br>list.c<br>selforg.dat |
| USAGE: | make (to compile)<br>Selforg output file (to run) |
| PURPOSE: | To implement a doubly-linked self-organizing list. Additionally, the number of times each value is accessed is counted. |

STRUCTURE/DESIGN:

```
m                    a        i                  n
   |           |        |        |              |       |
   |           |        |        |              |       |
   |           |        |        |              |       |
   |        open_files  |    print_list         |   close_files
   |           search_list                       |
   |                 |                            |
create_list    ——— | ———            delete_list
              insert_front      insert_new
                 |
              check_limit
```

| | |
|---|---|
| GLOBAL VARIABLES: | header for list<br>I/O files (only in io.c) |
| RETRICTIONS: | Each number is accessed at most 99 times. |
| ERROR HANDLING: | The program is terminated if<br>1. either I/O file cannot be opened.<br><br>2. malloc() failure |