**My Ls**

* Submit files: ["Makefile", "*.c", "*.h"]

**Command Name**

Write a programm called my\_ls. Following the specifications of this man page.

**Description**

my\_ls -- list directory contents

**SYNOPSIS**

my\_ls [-at] [file ...]

**DESCRIPTION**

For each operand that names a *file* of a type other than directory, **my\_ls** displays its name as well as any requested, associated information. For each operand that names a *file* of type directory, *my\_ls* displays the names of files contained within that directory, as well as any requested, associated information.

If no operands are given, the contents of the current directory are displayed. If more than one operand is given, non-directory operands are displayed first; directory and non-directory operands are sorted separately and in lexicographical order.

The following options are available:

* **-a** Include directory entries whose names begin with a dot (.).
* **-t** Sort by time modified (most recently modified first) before sorting the operands by lexicographical order.

**Requirements**

* Your code must be compiled with the flags **-Wall -Wextra -Werror**.

**Hint(s)**

* Watch out for **memory leaks** !
* You can test your code against memory errors by compiling with the debugging flags **-g3 -fsanitize=address**
* **Global variables are strictly FORBIDDEN**
* tv\_sec AND tv\_nsec are used for the -t options ;-)
* st\_mtime is not what you want to use. You want to use st\_mtim

**technical information**

1. you must create a Makefile, and the ouput is the command itself
2. You can use:

* malloc(3)
* free(3)
* printf(3)
* write(2)
* stat(2)
* lstat(2)
* opendir(2)
* closedir(2)
* readdir(2)

1. You can NOT use:

* Any functions / syscalls which does not appear in the previous list
* Yes, it includes **exit**

**Tips**

Check /dev What is the difference between stat and lstat?