

HW 3: List Directory Tree

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Assigned: September 30, 2019

Due: 11:59pm October 7, 2019

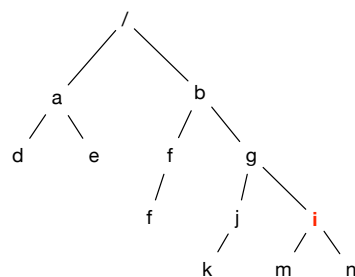
- The goal of this assignment is extending the “spwd.c” to list the directory tree along with the full pathname of the current working directory.

- **Requirements**

- The extended code should list all subdirectories and files on the directories above the current working directory.
- When listing files and directories, you need to show their inode number along with the name.
- You need to sort the files and subdirectories in each directory in ascending order by the inode number.

- **Execution example**

- Suppose the directory tree of the current file system is as follows,



- When the current working directory is “i”, your program’s output should look like,

```
$ ./hw3
2    /
32   a
36   b
10   g
12   f
24   j
25   i
The current working directory: /b/g/i
$
```

The number in each row above is the inode number of the corresponding file (or directory).

[Evaluation]

```
$ gcc hw3_2014123123.c -o hw3
```

```
$ ./hw3
```

Late Day Policy

All homeworks are due at 11:59pm on the due date. A grading penalty will be applied to late assignments. Any assignment turned in late will be penalized 50% per late day.

Plagiarism

No plagiarism will be tolerated. If the assignment is to be worked on your own, please respect it. If the instructor determines that there are substantial similarities exceeding the likelihood of such an event, he will call the two (or more) students to explain them and possibly to take an immediate test (or assignment, at the discretion of the instructor) to determine the student's abilities related to the offending work.