Lab 2

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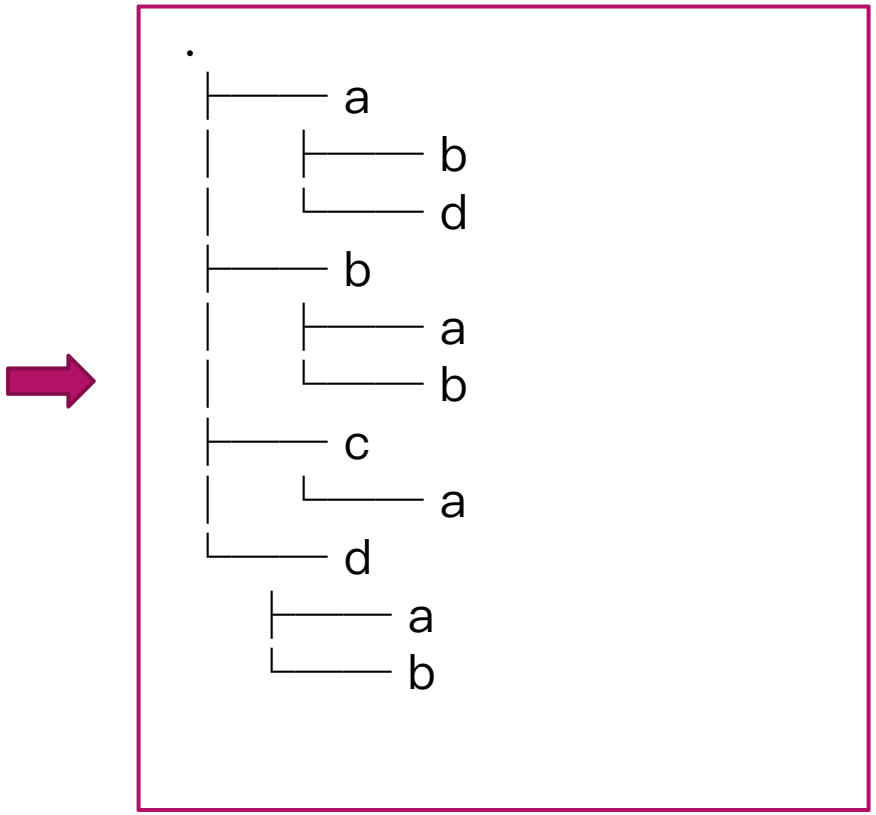
Lab2.A

https://spaces.sustech.cloud/classes/14/assignment/lab2

Input:

```
16 5
mkdir a
echo 123 > a/b
echo 234 > a/c
echo 345 > a/d
mkdir b
mkdir c
mkdir d
echo 666 > b/a
echo 23333 > c/a
echo 12312dasdasdf > d/a
mkdir a/e
echo > a/e/b
echo > b/b
echo > d/b
rm a/c
rm -rf a/e
cat d/a
cat c/a
find
find a -name b
find ./../../ -name b -type f
```

Tree:



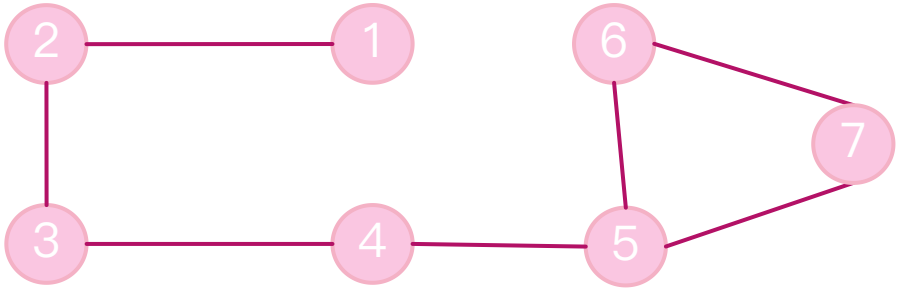
```
(base) zhaoyaos-MacBook-Pro:data zhaoyao$ cat d/a
12312dasdasdf
(base) zhaoyaos-MacBook-Pro:data zhaoyao$ cat c/a
23333
(base) zhaoyaos-MacBook-Pro:data zhaoyao$ find .
.
./a
./a/d
./a/b
./c
./c/a
./d
./d/a
./d/b
./b
./b/a
./b/b
(base) zhaoyaos-MacBook-Pro:data zhaoyao$ find a -name b
a/b
(base) zhaoyaos-MacBook-Pro:data zhaoyao$ find ./../../ -name b -type f
./../../a/b
./../../d/b
./../../b/b
```

Lab2.B

- Given an undirected connected graph ***G*** with n nodes and m edges. Nodes are numbered starting from ***1*** to ***n*** .
- Given two integers ***a, b*** . Now counting the pairs ***(x, y)*** that any path from node ***x*** to node ***y*** goes through node ***a*** and node ***b*** ***(x ≠ a, x ≠ b, y ≠ a, y ≠ b)*** .
- Print the required number of pairs. The order of two nodes in a pair does not matter, that is, **the pairs *(x, y)* and *(y, x)* must be taken into account only once**.

Input:

```
7  7  3  5
5  6
6  7
7  5
1  2
2  3
3  4
4  5
```



Pairs:

(1, 6) (2, 6)
(1, 7) (2, 7)

Output:

4