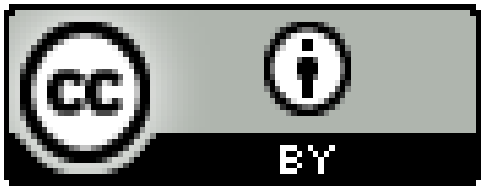
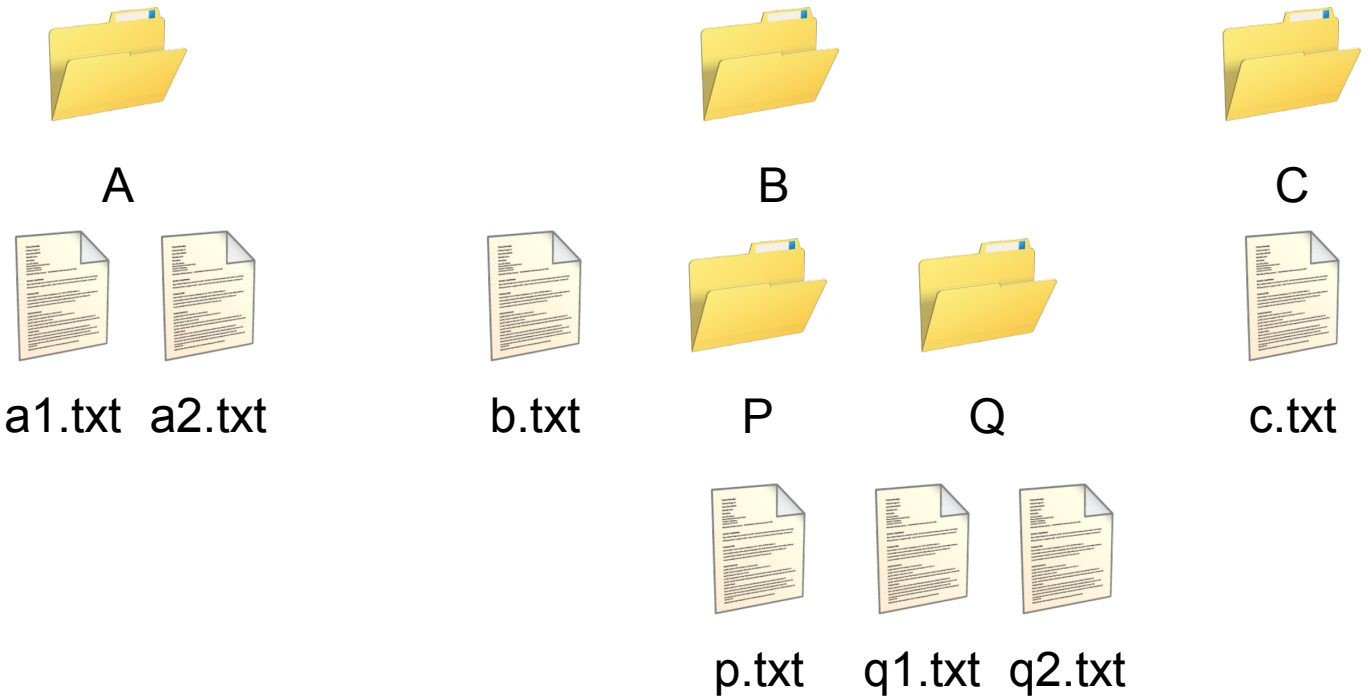
Python

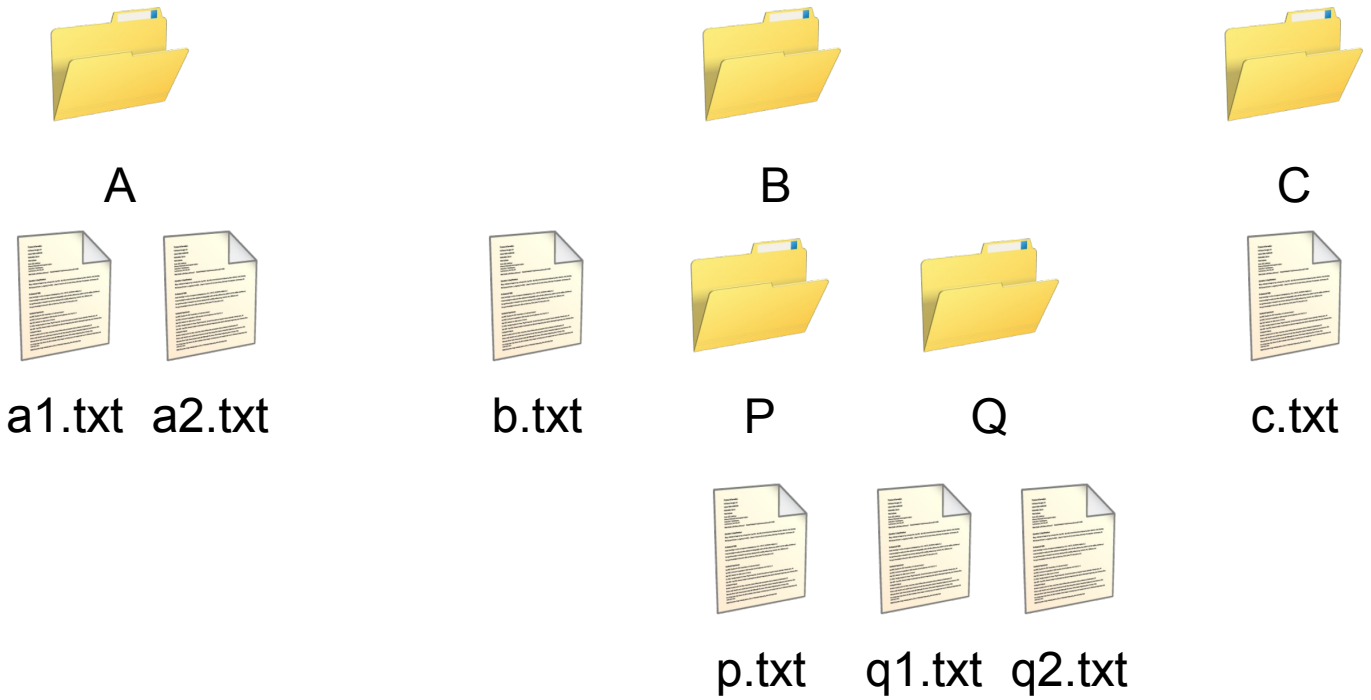
Browsing Directories Using `walk`



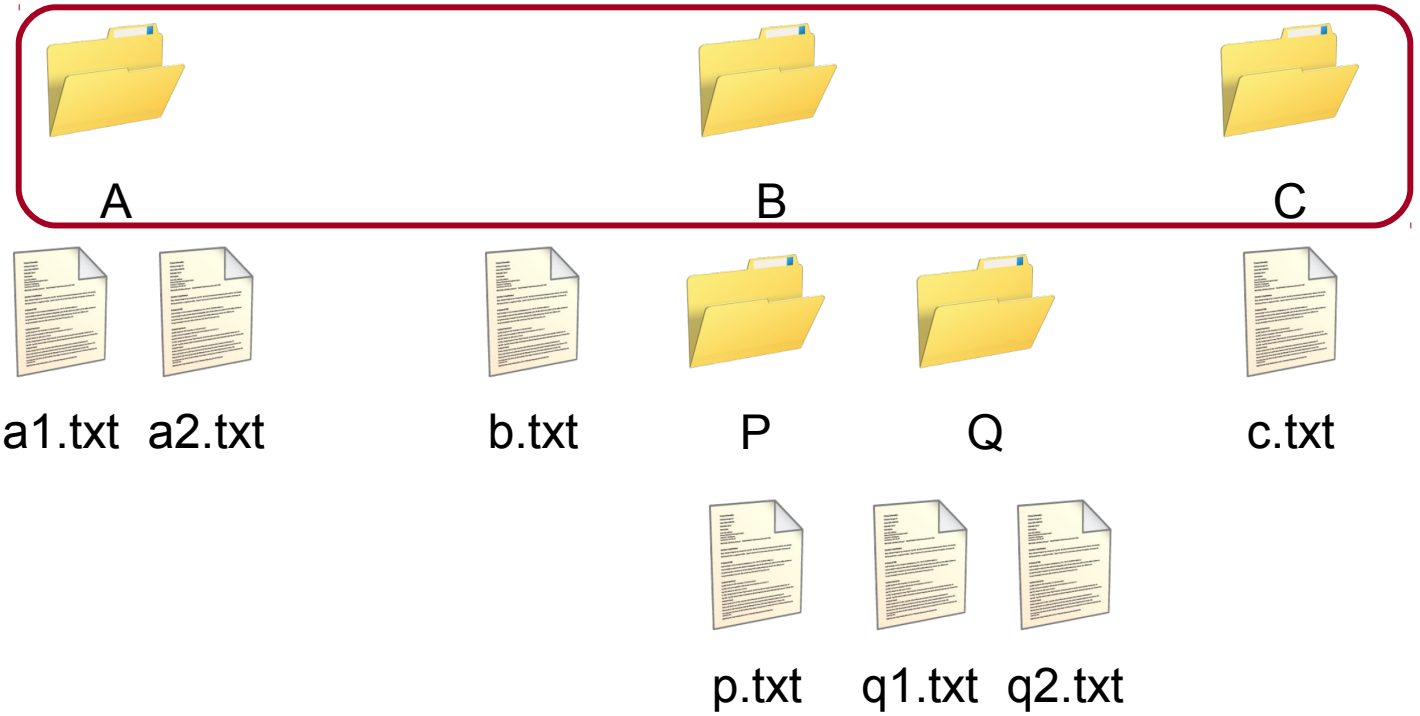
```
>>> from os import walk
>>> tree = walk('.')
```




```
walk('.')
```

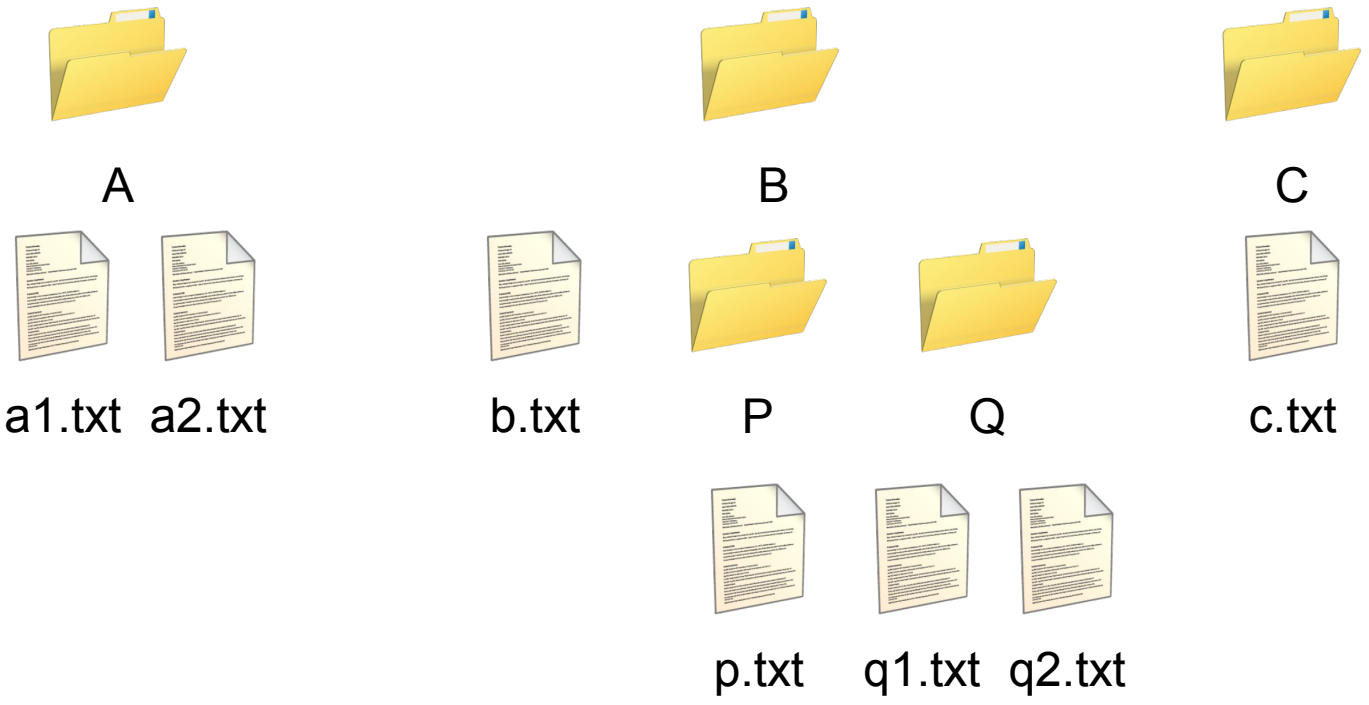



```
walk('.')
```



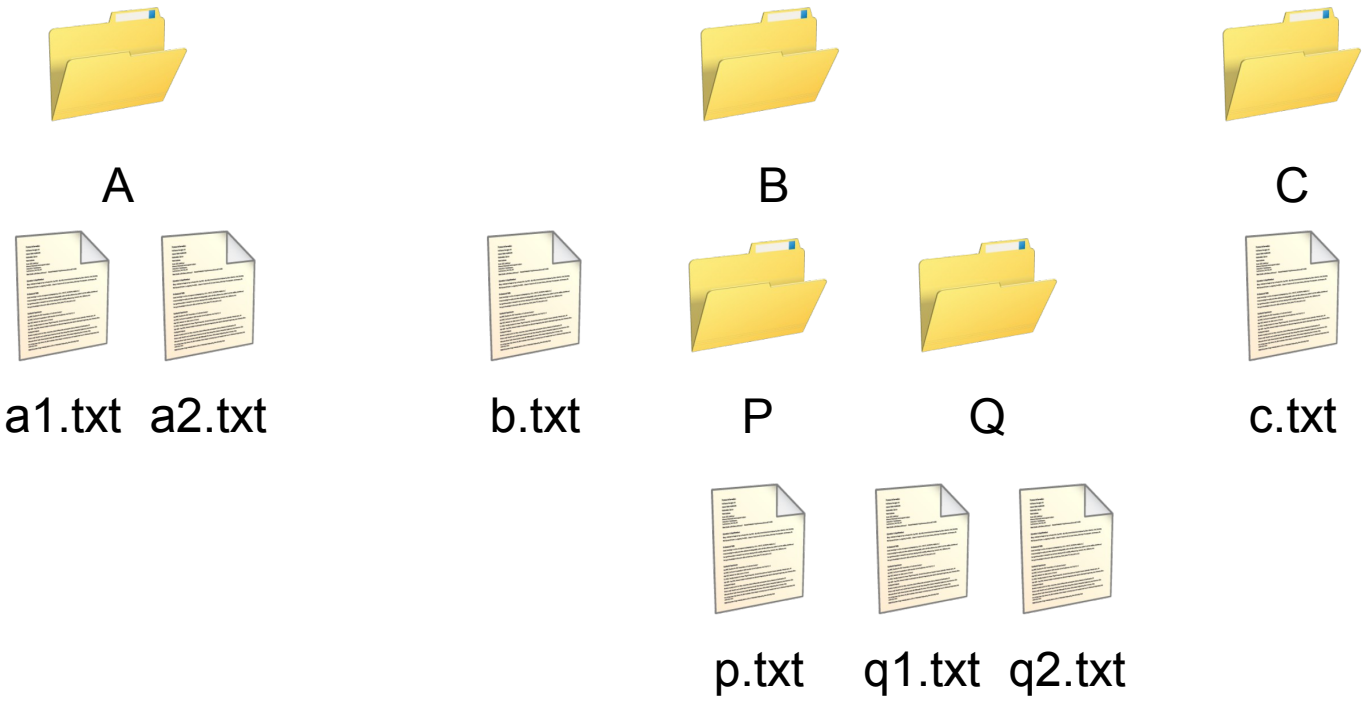

```
walk('.')
```

```
.       ['C', 'A', 'B']
```



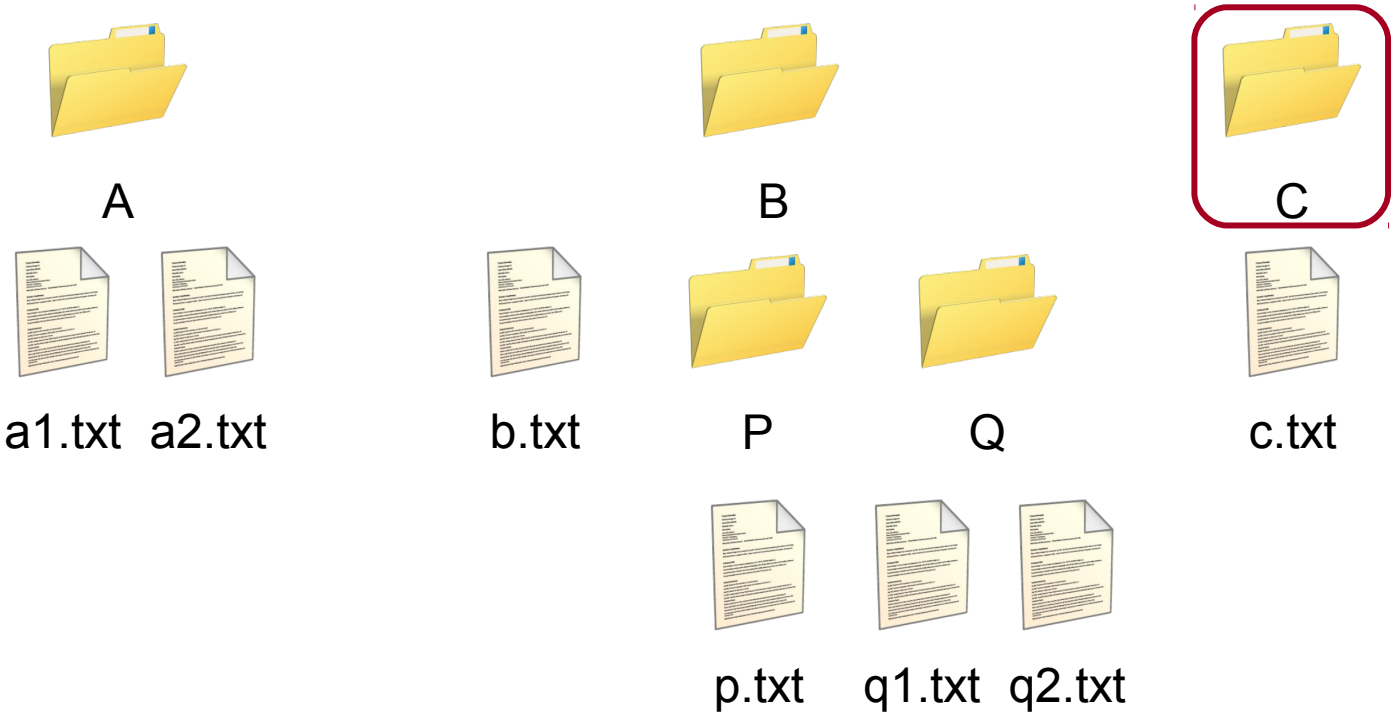

```
walk('.')
```

```
.       ['C', 'A', 'B']      []
```



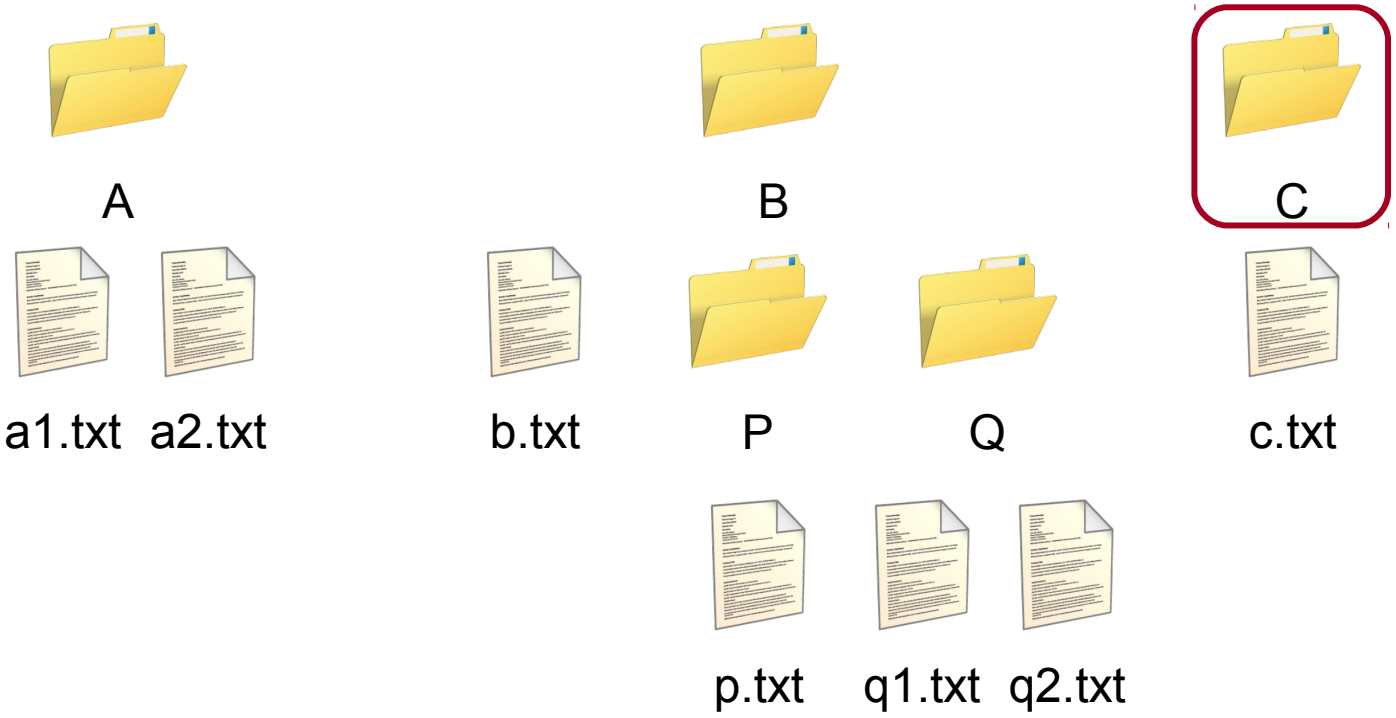

```
walk('.')
```

```
.       ['C', 'A', 'B']      []
```



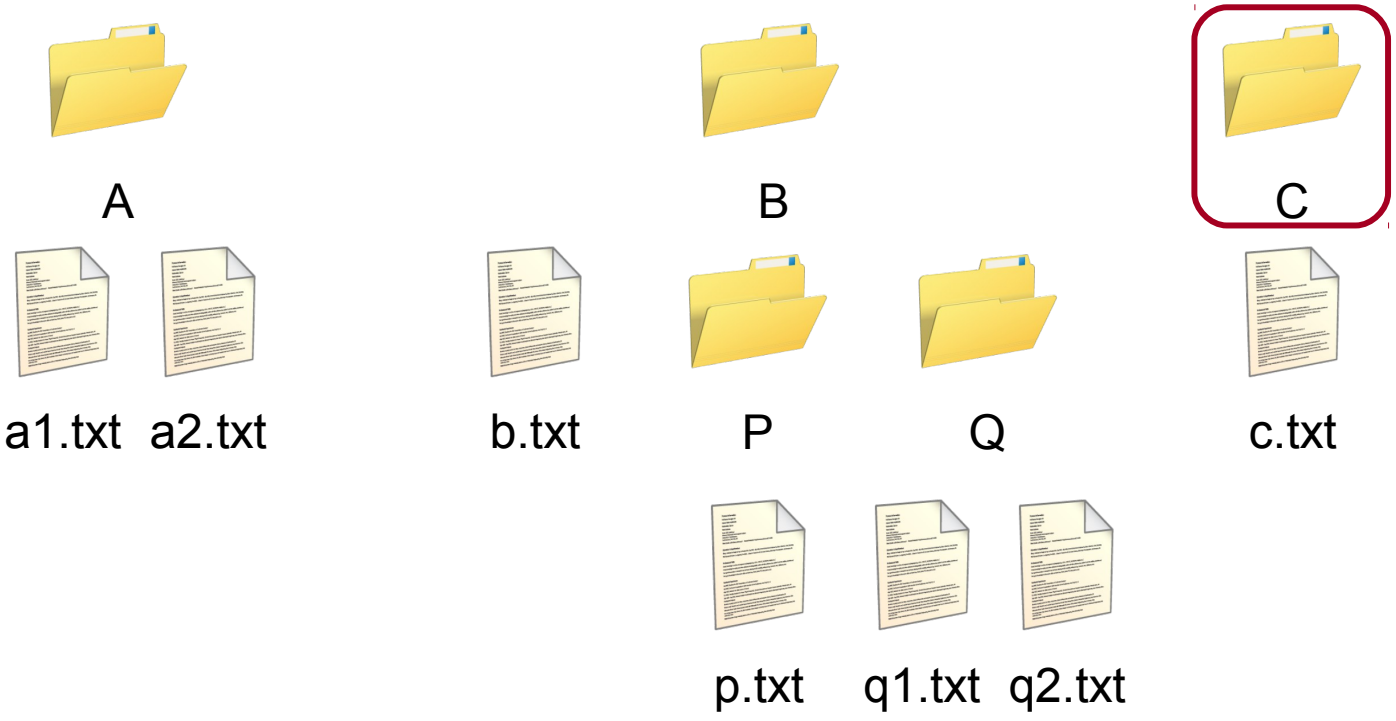

```
walk('.')
walk('./C')
```

```
.       ['C', 'A', 'B']     []
```



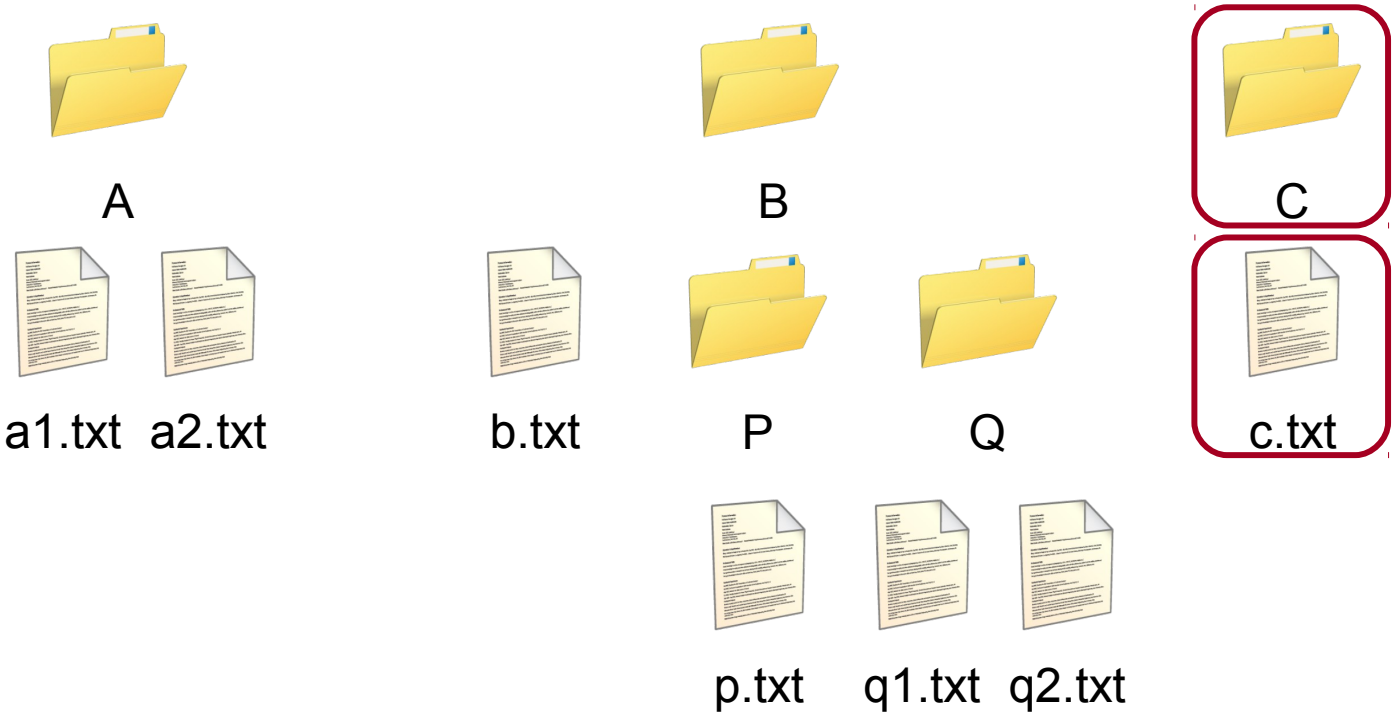

```
walk('.')
walk('./C')
```

```
.       ['C', 'A', 'B']     []
./C
```



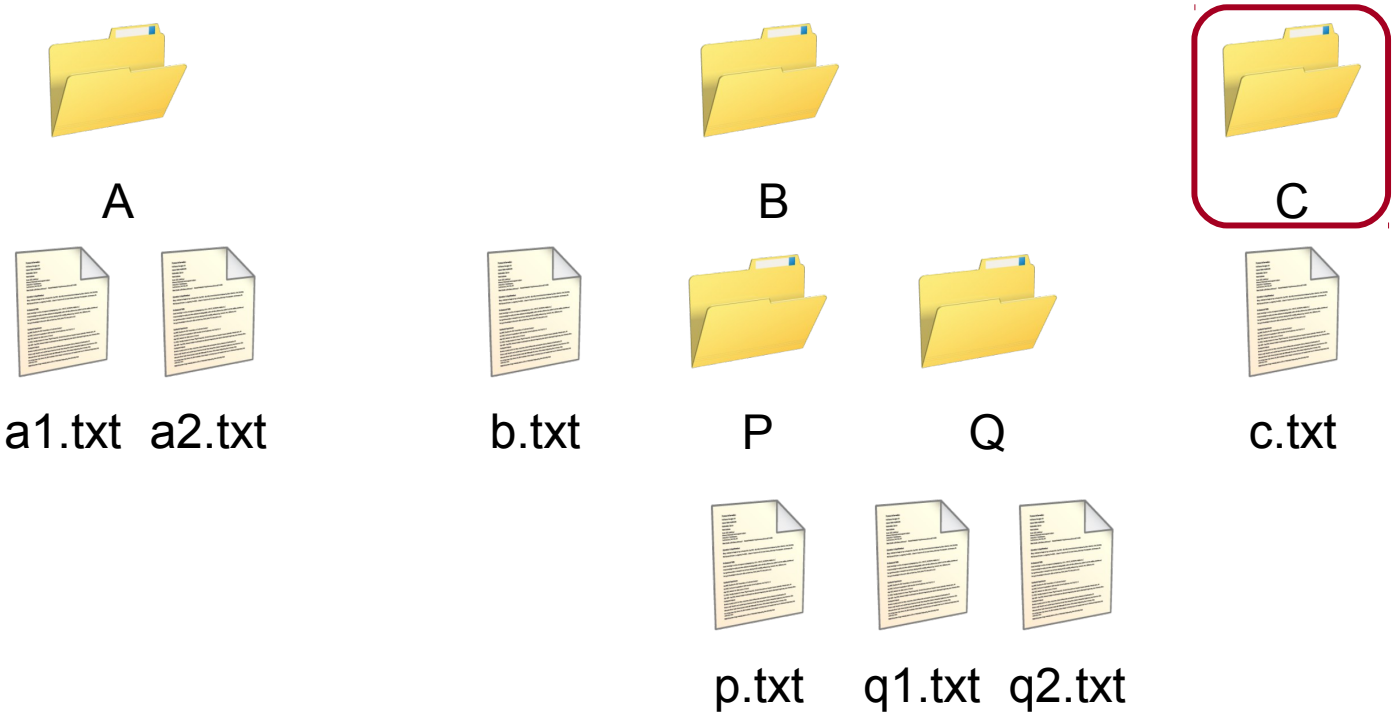

```
walk('.')
walk('./C')
```

```
.      ['C', 'A', 'B']      []
./C    []
```



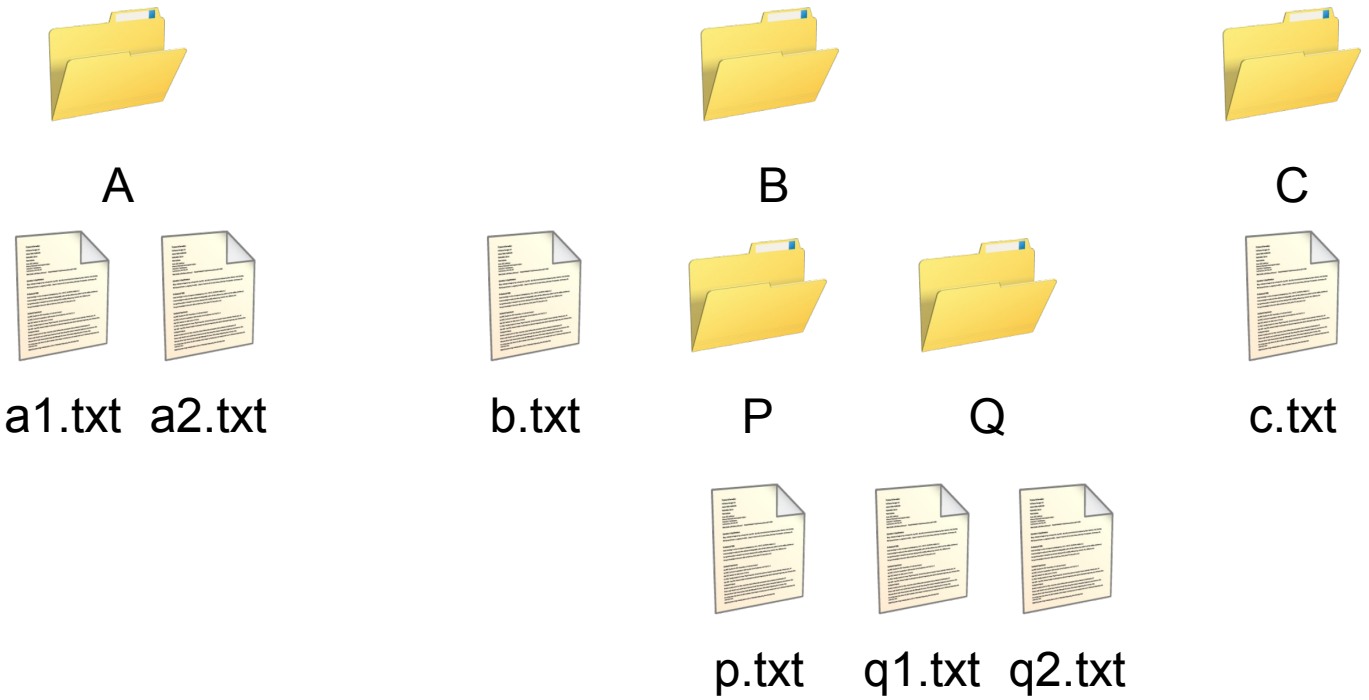

```
walk('.')
walk('./C')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
```



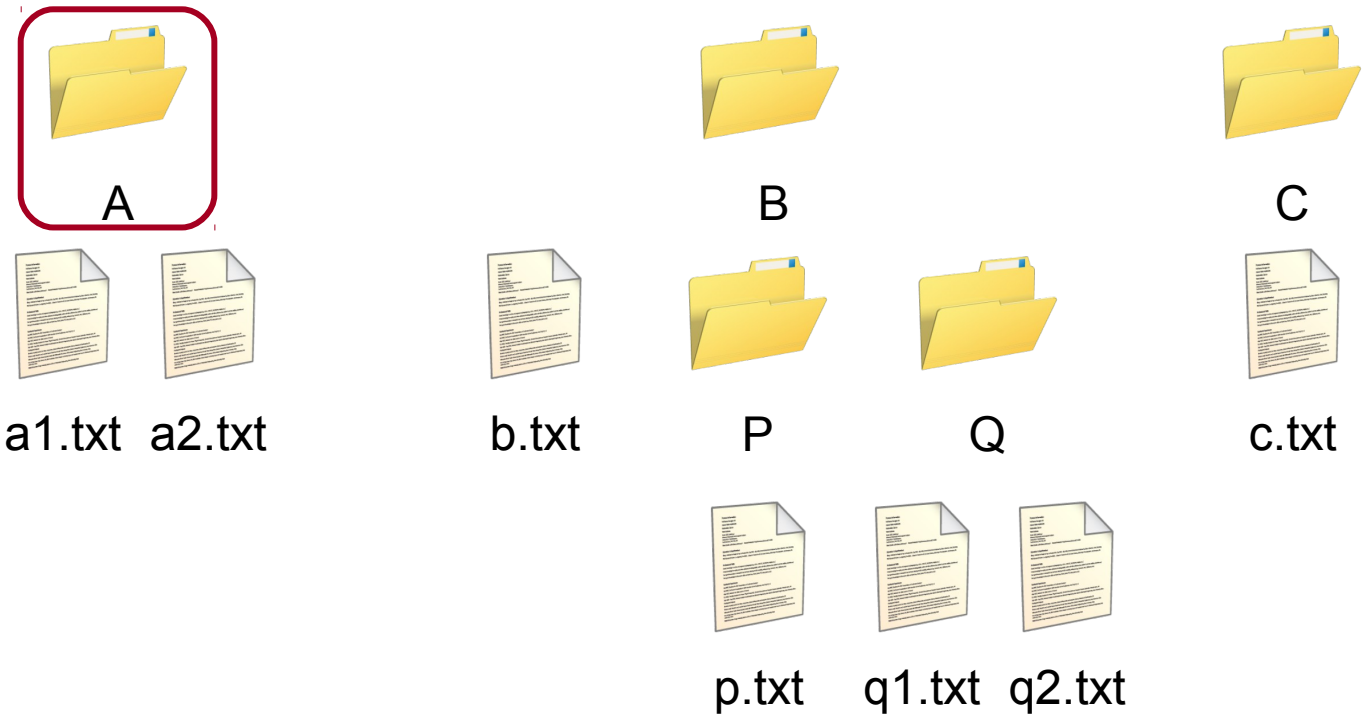

```
walk('.')
walk('./C')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
```



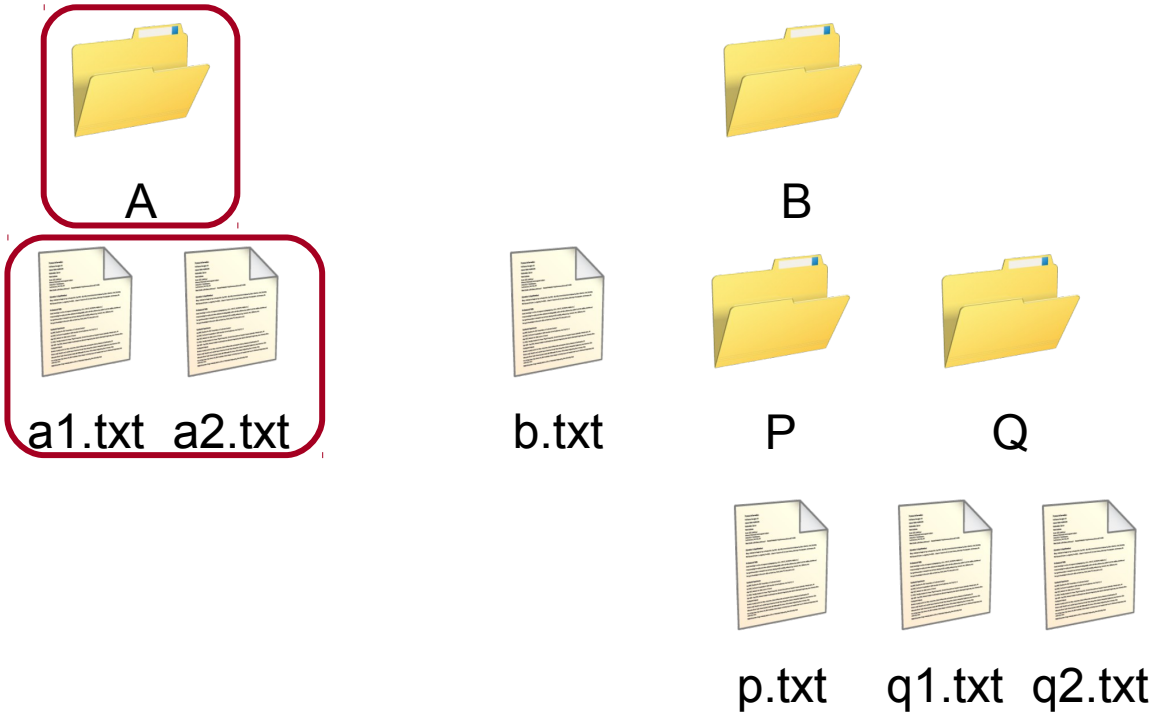

```
walk('.')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
```



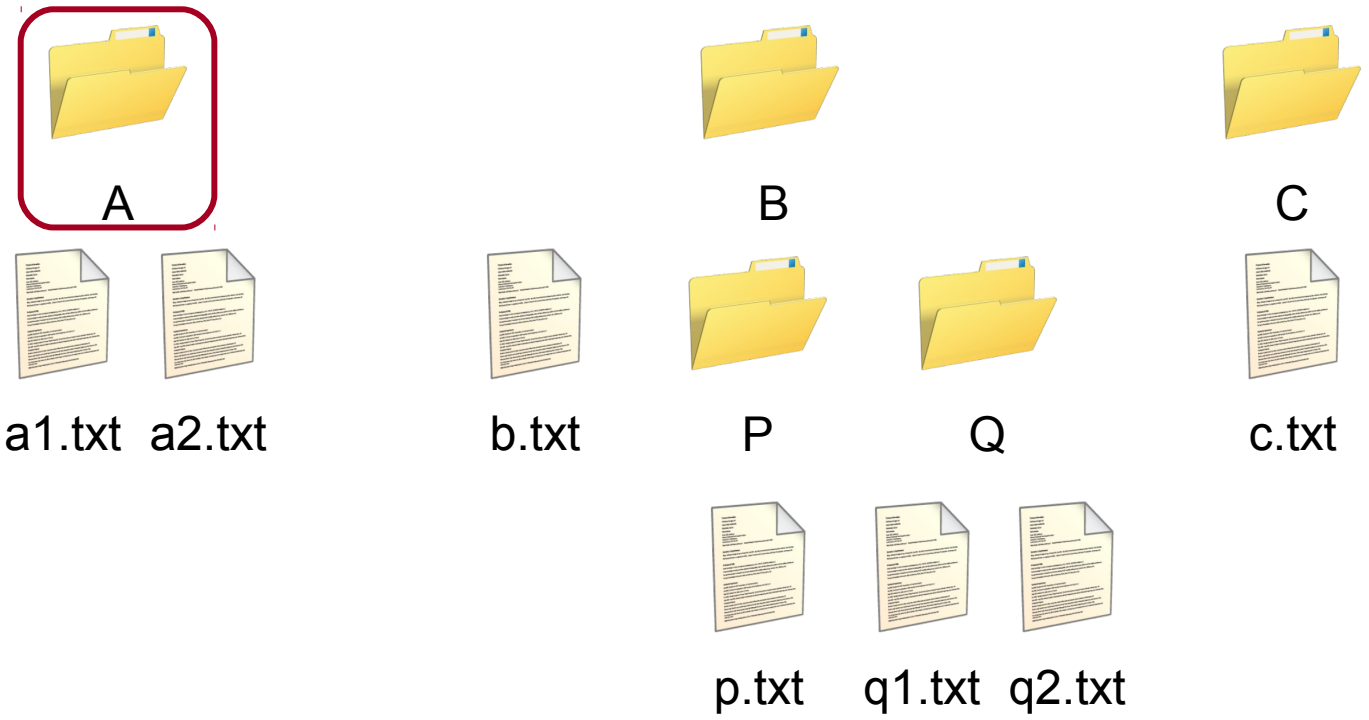

```
walk('.')
walk('./A')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
```



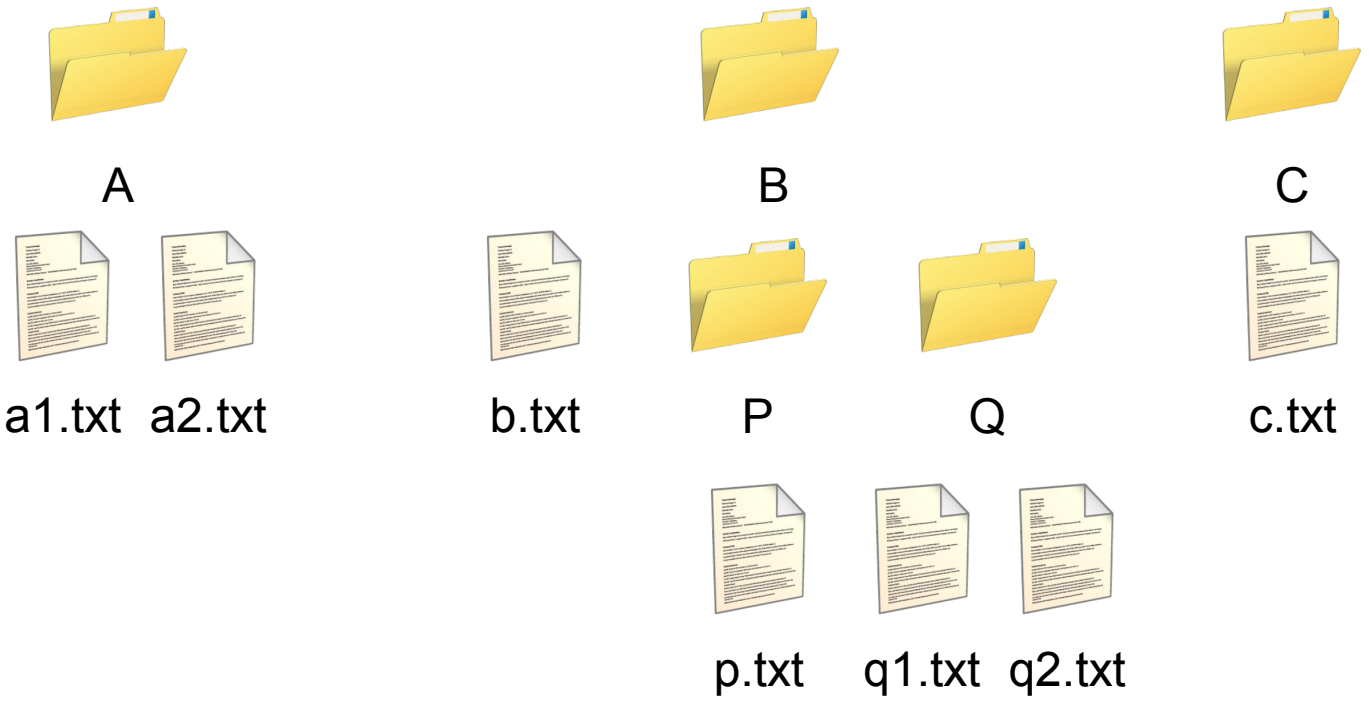

```
walk('.')
walk('./A')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
./A    []                   ['a1.txt', 'a2.txt']
```



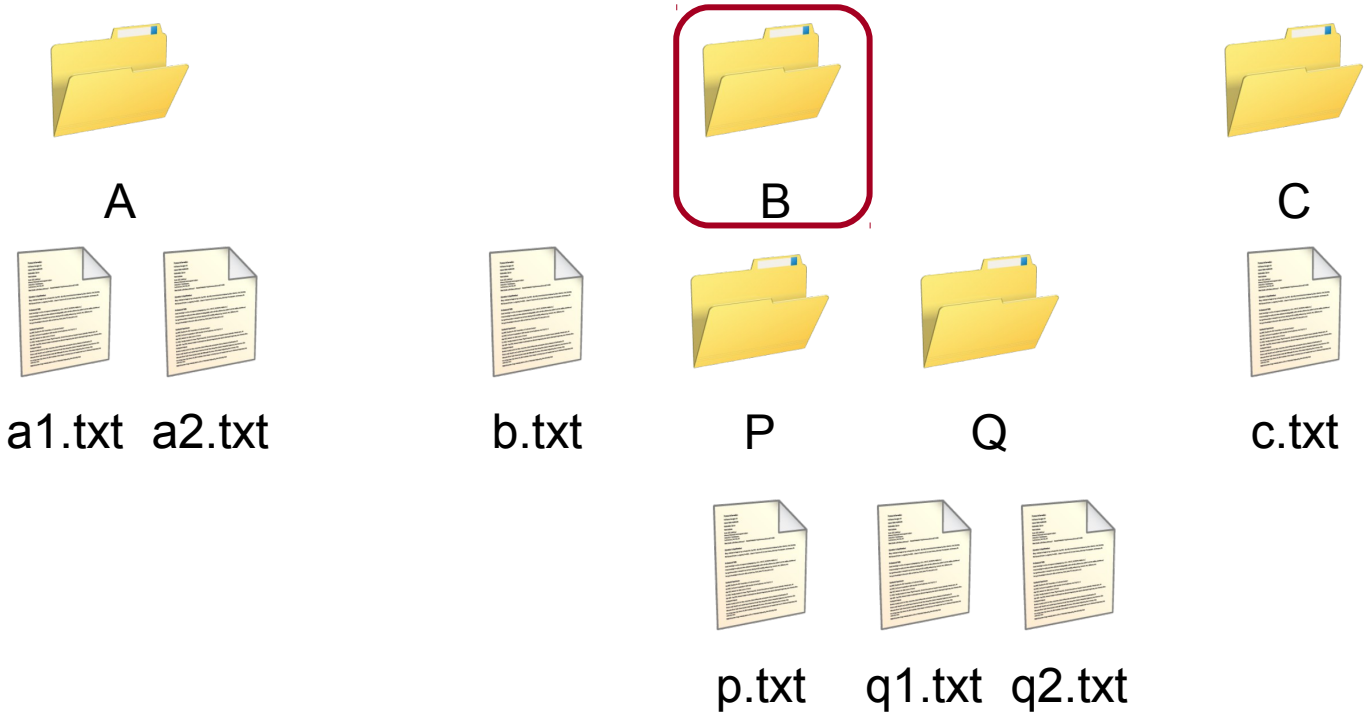

```
walk('.')
walk('./A')
```

```
.     ['C', 'A', 'B']     []
./C   []                  ['c.txt']
./A   []                  ['a1.txt', 'a2.txt']
```



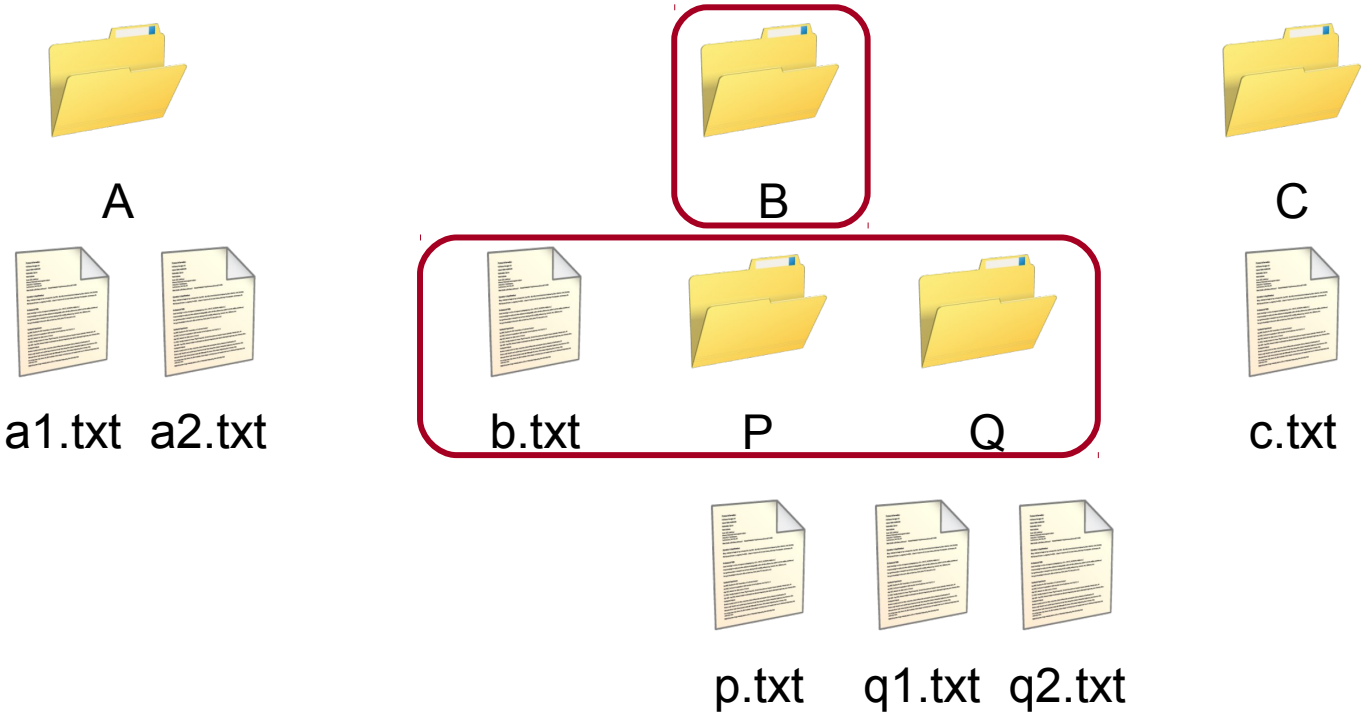

```
walk('.')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
./A    []                   ['a1.txt', 'a2.txt']
```



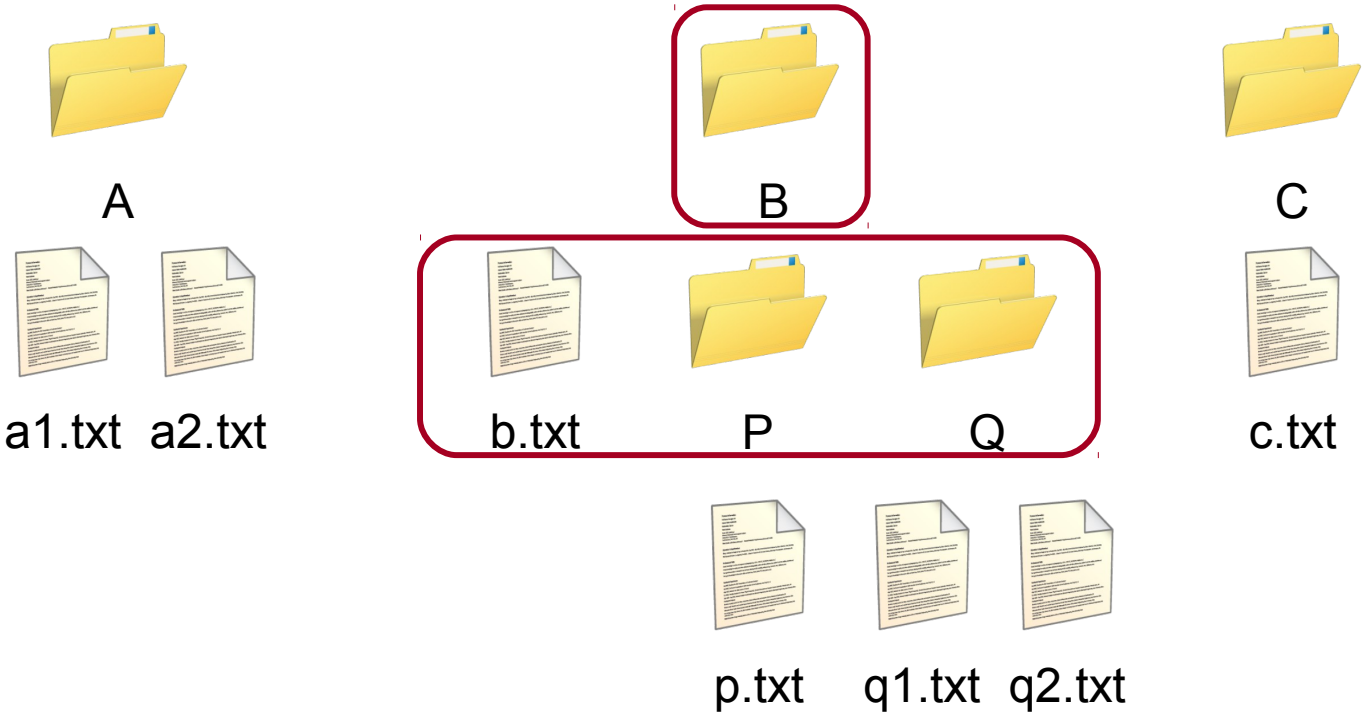

```
walk('.')
walk('./B')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
./A    []                   ['a1.txt', 'a2.txt']
```



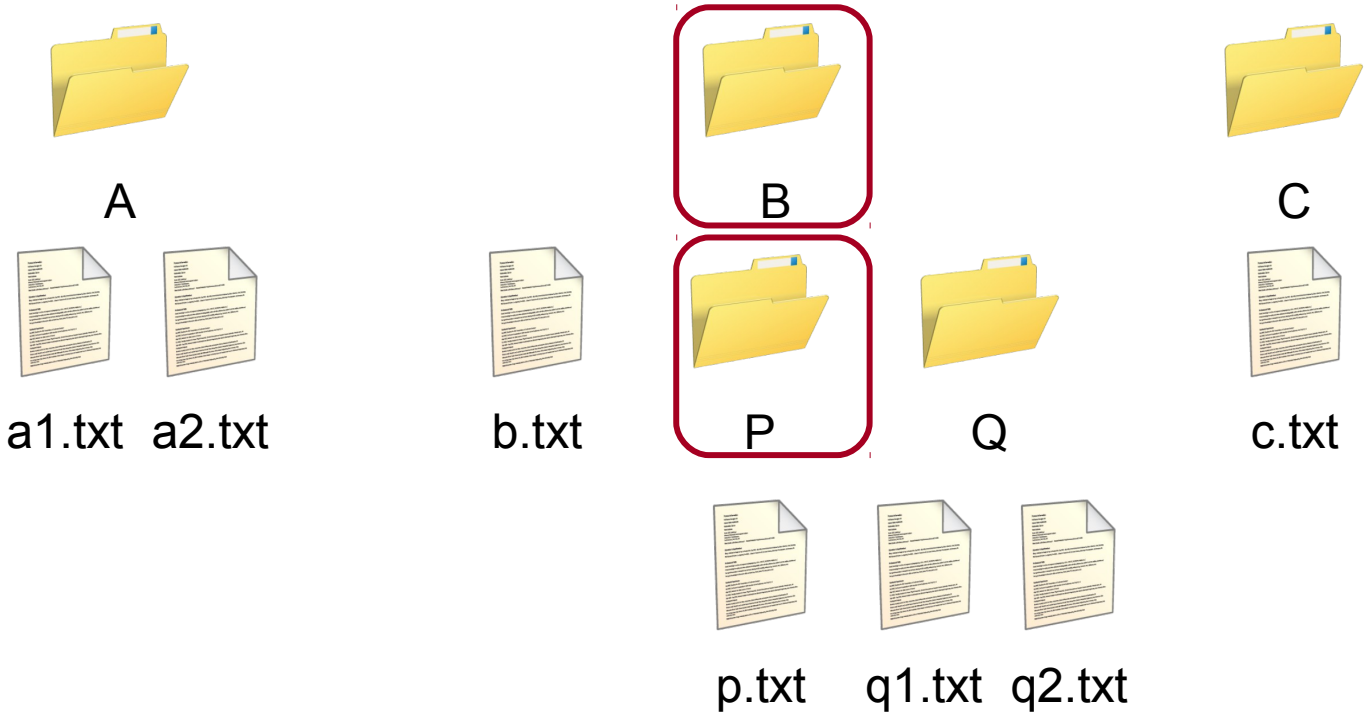

```
walk('.')
walk('./B')
```

```
.     ['C', 'A', 'B']     []
./C   []                  ['c.txt']
./A   []                  ['a1.txt', 'a2.txt']
./B   ['P', 'Q']          ['b.txt']
```



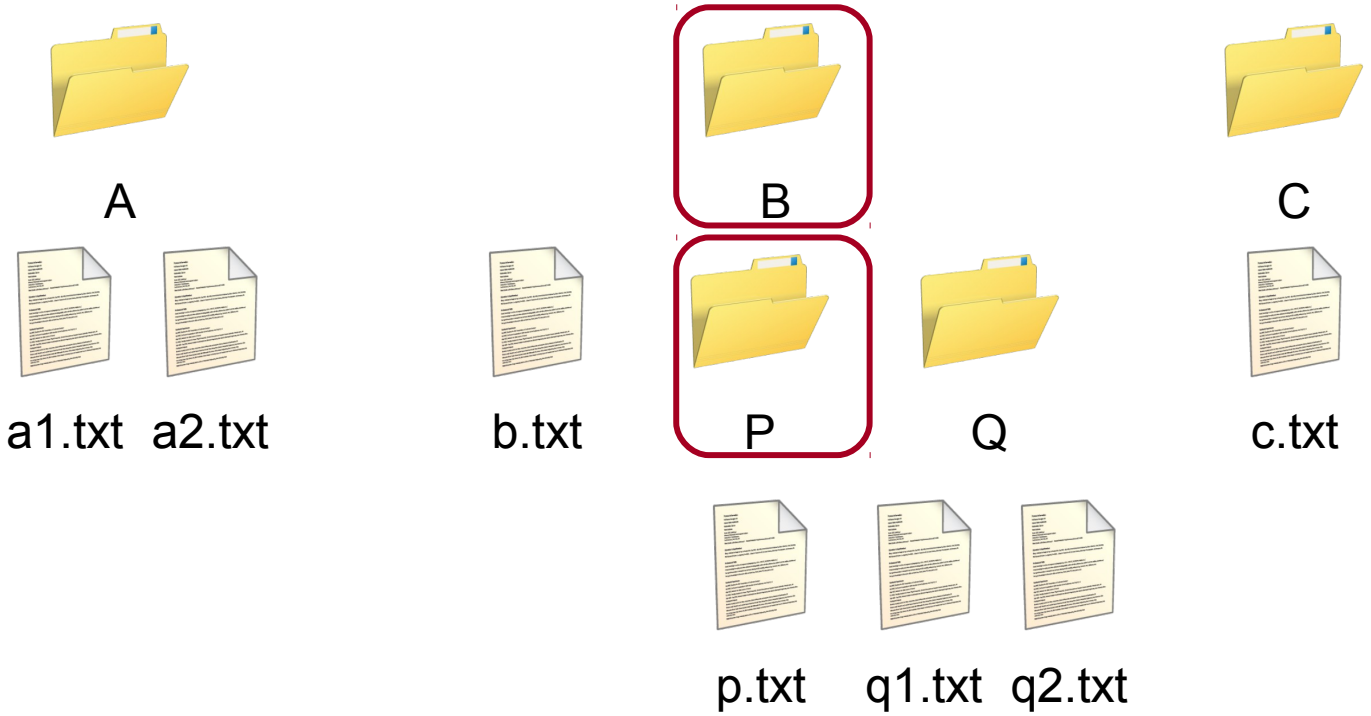

```
walk('.')
walk('./B')
```

```
.     ['C', 'A', 'B']     []
./C   []                  ['c.txt']
./A   []                  ['a1.txt', 'a2.txt']
./B   ['P', 'Q']          ['b.txt']
```



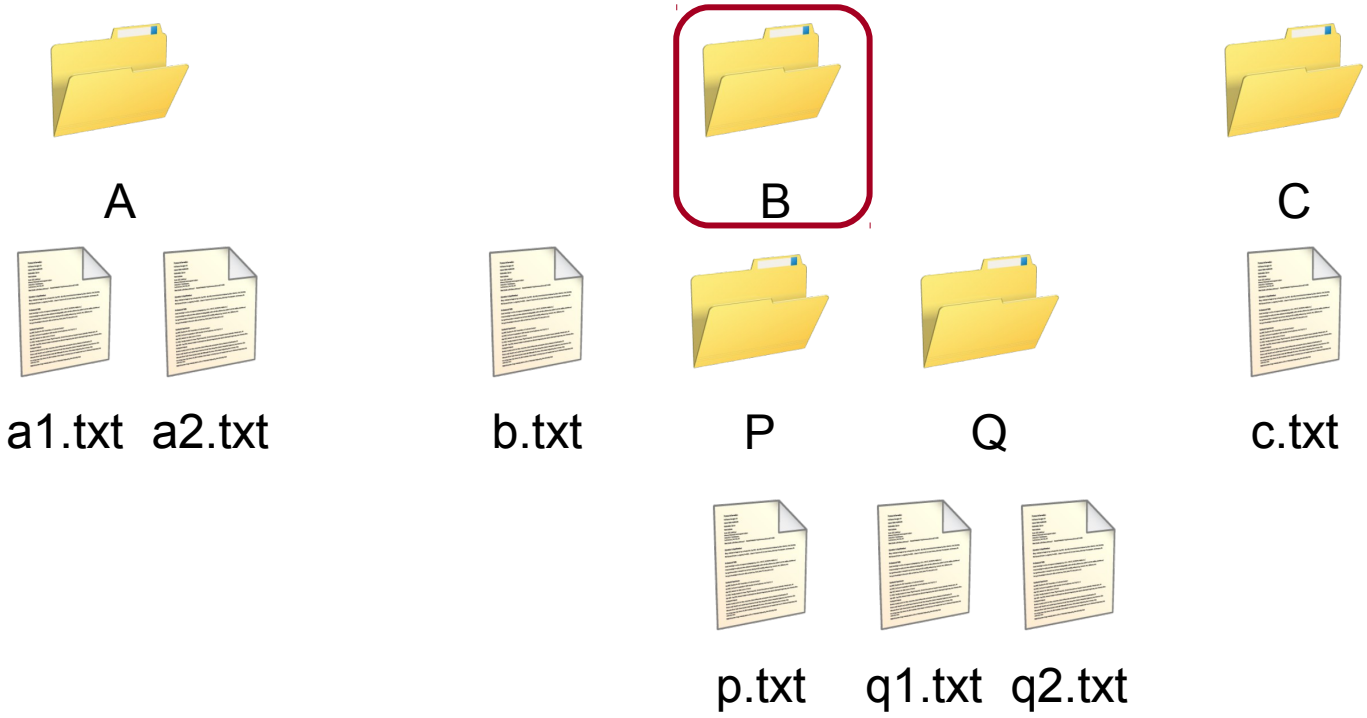

```
walk('.')
walk('./B')
walk('./B/P')
```

```
.     ['C', 'A', 'B']     []
./C   []                  ['c.txt']
./A   []                  ['a1.txt', 'a2.txt']
./B   ['P', 'Q']          ['b.txt']
```



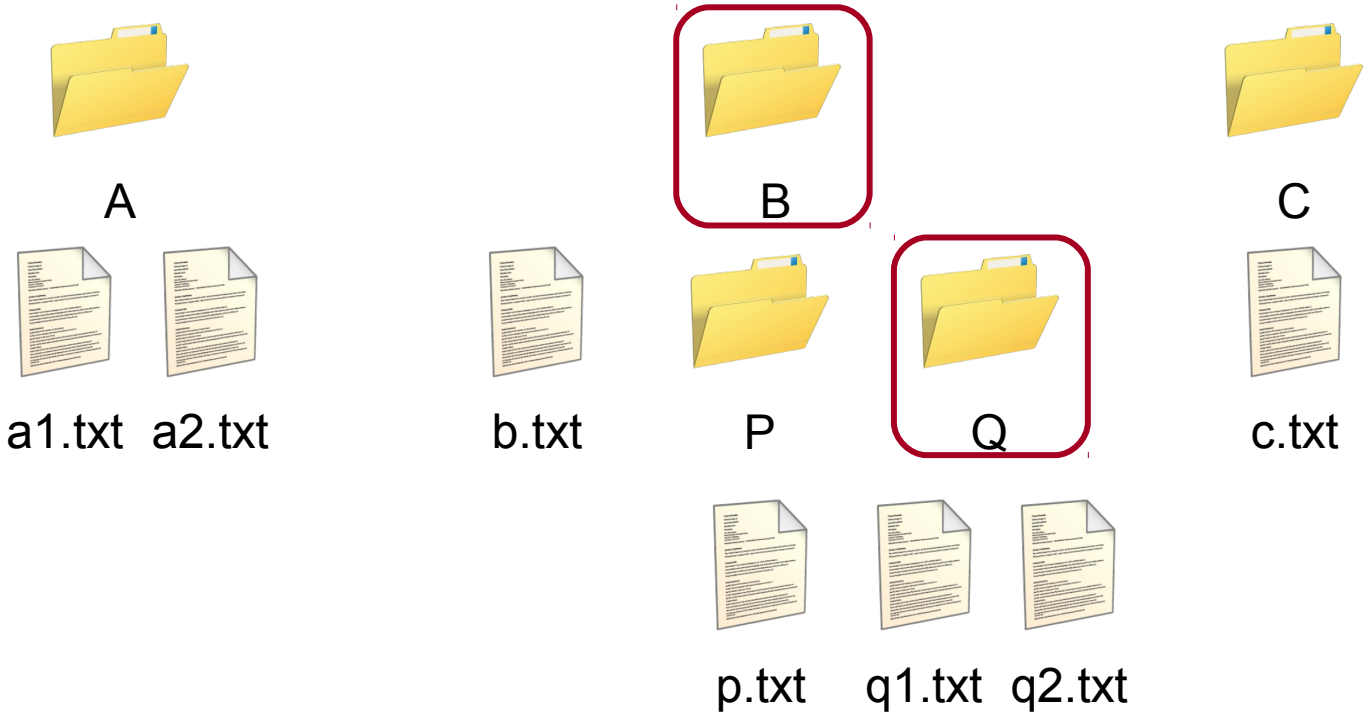

```
walk('.')
walk('./B')
walk('./B/P')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
./A    []                   ['a1.txt', 'a2.txt']
./B    ['P', 'Q']           ['b.txt']
./B/P  []                   ['p.txt']
```



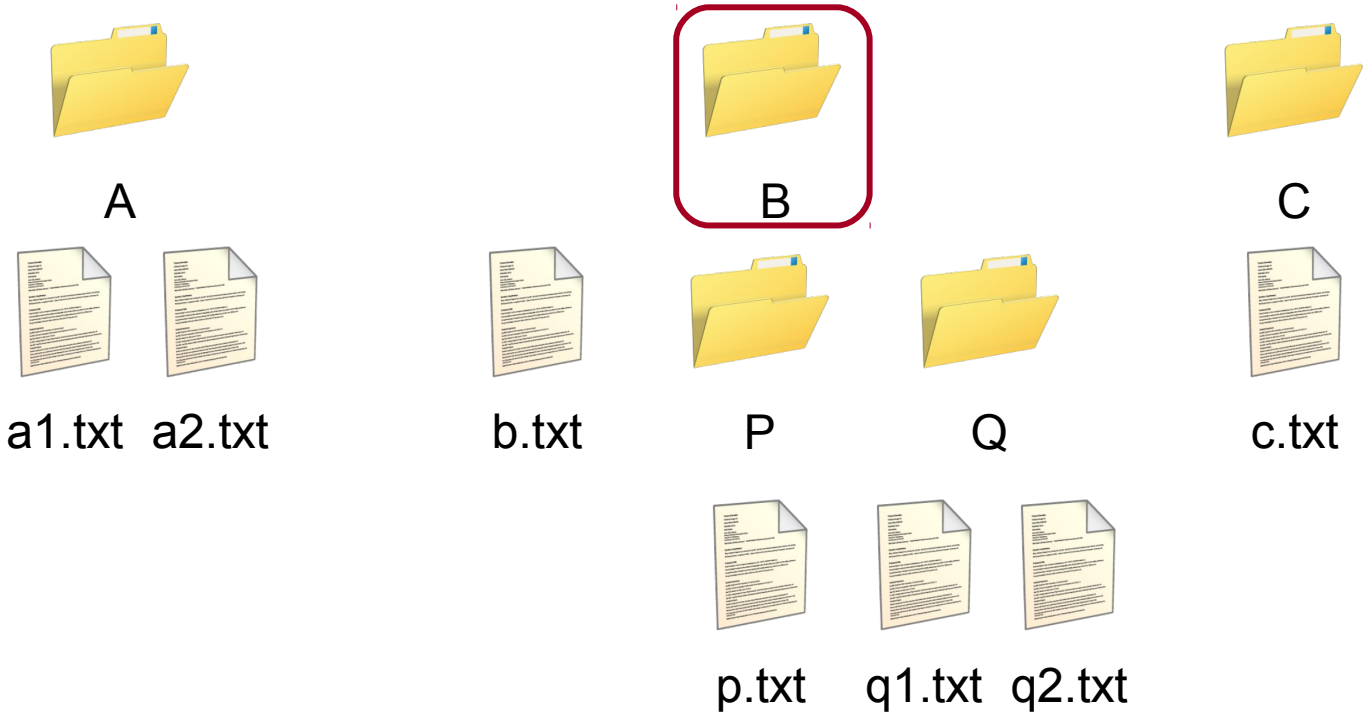

```
walk('.')
walk('./B')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
./A    []                   ['a1.txt', 'a2.txt']
./B    ['P', 'Q']           ['b.txt']
./B/P  []                   ['p.txt']
```



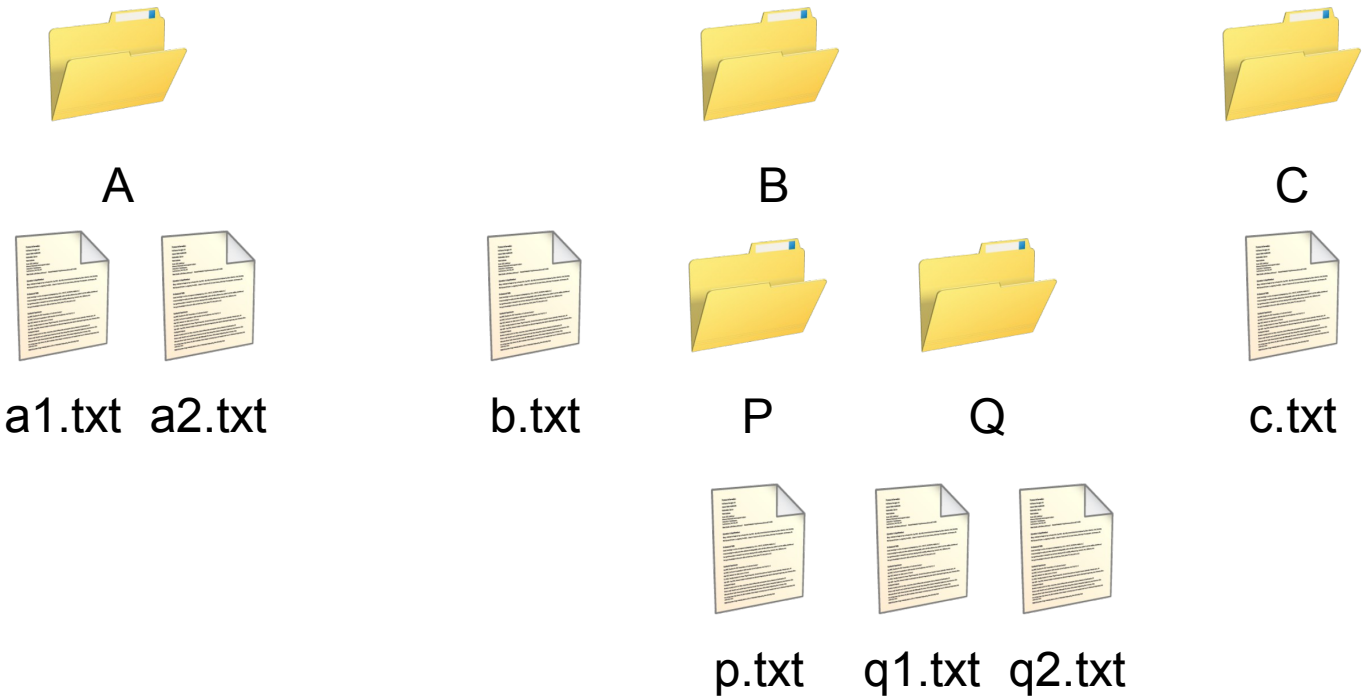

```
walk('.')
walk('./B')
walk('./B/Q')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
./A    []                   ['a1.txt', 'a2.txt']
./B    ['P', 'Q']           ['b.txt']
./B/P  []                   ['p.txt']
./B/Q  []                   ['q1.txt' 'q2.txt']
```



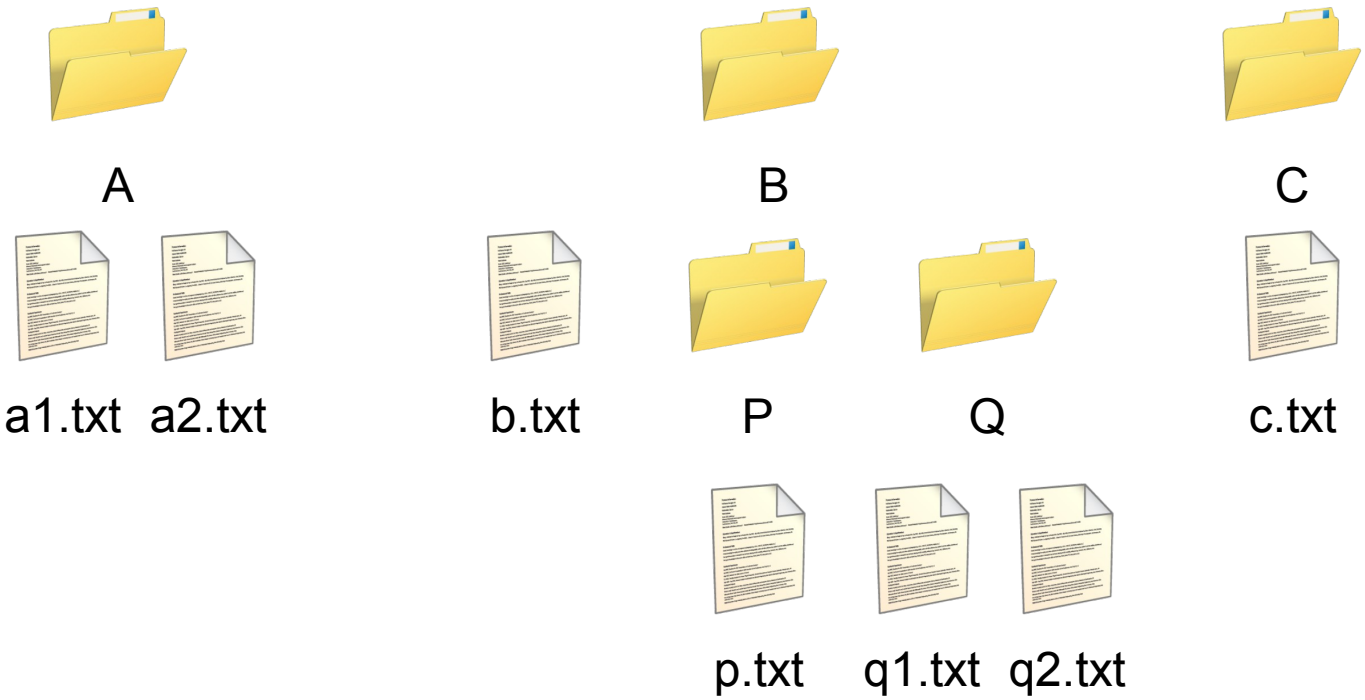

```
walk('.')
walk('./B')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
./A    []                   ['a1.txt', 'a2.txt']
./B    ['P', 'Q']           ['b.txt']
./B/P  []                   ['p.txt']
./B/Q  []                   ['q1.txt' 'q2.txt']
```




```
walk('.')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
./A    []                   ['a1.txt', 'a2.txt']
./B    ['P', 'Q']           ['b.txt']
./B/P  []                   ['p.txt']
./B/Q  []                   ['q1.txt' 'q2.txt']
```




```
walk('.')
```

```
.      ['C', 'A', 'B']      []
./C    []                   ['c.txt']
./A    []                   ['a1.txt', 'a2.txt']
./B    ['P', 'Q']           ['b.txt']
./B/P  []                   ['p.txt']
./B/Q  []                   ['q1.txt' 'q2.txt']
```

```
>>> from os import walk
>>> tree = walk('.')
```

```
>>> from os import walk
>>> tree = walk('.')
```

walk returns a list of tuples

```
>>> from os import walk
>>> tree = walk('.')


>>> for dir,subdirs,files in tree:
...     print "%s   %s   %s" %(dir,subdirs,files)
...
```

```
>>> from os import walk
>>> tree = walk('.')
```

```
>>> for dir,subdirs,files in tree:
...     print "%s   %s   %s" %(dir,subdirs,files)
...
.   ['C', 'A', 'B']   []
./C   []   ['c.txt']
./A   []   ['a1.txt', 'a2.txt']
./B   ['P', 'Q']   ['b.txt']
./B/P   []   ['p.txt']
./B/Q   []   ['q1.txt' 'q2.txt']
```

```
>>> from os import walk
>>> tree = walk('.')
```

Each tuple contains a directory

```
>>> for dir,subdirs,files in tree:
...     print "%s   %s   %s" %(dir,subdirs,files)
...
.   ['C', 'A', 'B']   []
./C   []   ['c.txt']
./A   []   ['a1.txt', 'a2.txt']
./B   ['P', 'Q']   ['b.txt']
./B/P   []   ['p.txt']
./B/Q   []   ['q1.txt' 'q2.txt']
```

```
>>> from os import walk
>>> tree = walk('.')
```

Each tuple contains a directory, its subdirectories

```
>>> for dir,subdirs,files in tree:
...     print "%s   %s   %s" %(dir,subdirs,files)
...
.   ['C', 'A', 'B']   []
./C   []   ['c.txt']
./A   []   ['a1.txt', 'a2.txt']
./B   ['P', 'Q']   ['b.txt']
./B/P   []   ['p.txt']
./B/Q   []   ['q1.txt' 'q2.txt']
```

```
>>> from os import walk
>>> tree = walk('.')
```

Each tuple contains a directory, its subdirectories, and its files

```
>>> for dir,subdirs,files in tree:
...     print "%s   %s   %s" %(dir,subdirs,files)
...
.   ['C', 'A', 'B']   []
./C   []   ['c.txt']
./A   []   ['a1.txt', 'a2.txt']
./B   ['P', 'Q']   ['b.txt']
./B/P   []   ['p.txt']
./B/Q   []   ['q1.txt' 'q2.txt']
```

```
>>> from os import walk
>>> tree = walk('.')
```

```
>>> for dir,subdirs,files in tree:
...     print "%s   %s   %s" %(dir,subdirs,files)
...
.   ['C', 'A', 'B']   []
./C   []   ['c.txt']
./A   []   ['a1.txt', 'a2.txt']
./B   ['P', 'Q']   ['b.txt']
./B/P   []   ['p.txt']
./B/Q   []   ['q1.txt' 'q2.txt']
```

walk's input is used as a prefix for each directory name

```
>>> tree = walk(getcwd())
```

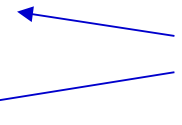
```
>>> tree = walk(getcwd())
>>> for dir,subdirs,files in tree:
...     print "%s   %s   %s" %(dir,subdirs,files)
...
/user/vlad   ['C', 'A', 'B']   []
/user/vlad/C   []   ['c.txt']
/user/vlad/A   []   ['a1.txt', 'a2.txt']
/user/vlad/B   ['P', 'Q']   ['b.txt']
/user/vlad/B/P   []   ['p.txt']
/user/vlad/B/Q   []   ['q1.txt' 'q2.txt']
```

```
>>> tree = walk(getcwd())
>>> for dir,subdirs,files in tree:
...     print "%s   %s   %s" %(dir,subdirs,files)
...
/user/vlad   ['C', 'A', 'B']   []
/user/vlad/C   []   ['c.txt']
/user/vlad/A   []   ['a1.txt', 'a2.txt']
/user/vlad/B   ['P', 'Q']   ['b.txt']
/user/vlad/B/P   []   ['p.txt']
/user/vlad/B/Q   []   ['q1.txt' 'q2.txt']
```

```
>>> tree = walk(getcwd(), topdown=False)
```

```
>>> tree = walk(getcwd(), topdown=False)
>>> for dir,subdirs,files in tree:
...     print "%s   %s   %s" %(dir,subdirs,files)
...
/user/vlad/C   []   ['c.txt']
/user/vlad/A   []   ['a1.txt', 'a2.txt']
/user/vlad/B/P   []   ['p.txt']
/user/vlad/B/Q   []   ['q1.txt' 'q2.txt']
/user/vlad/B   ['P', 'Q']   ['b.txt']
/user/vlad   ['C', 'A', 'B']   []
```

```
>>> tree = walk(getcwd(), topdown=False)
>>> for dir,subdirs,files in tree:
...     print "%s   %s   %s" %(dir,subdirs,files)
...
/user/vlad/C   []   ['c.txt']
/user/vlad/A   []   ['a1.txt', 'a2.txt']
/user/vlad/B/P   []   ['p.txt']
/user/vlad/B/Q   []   ['q1.txt' 'q2.txt']
/user/vlad/B   ['P', 'Q']   ['b.txt']
/user/vlad   ['C', 'A', 'B']   []
```



P and Q are before B

```
>>> tree = walk(getcwd(), topdown=False)
>>> for dir,subdirs,files in tree:
...     print "%s   %s   %s" %(dir,subdirs,files)
...
/user/vlad/C   []   ['c.txt']
/user/vlad/A   []   ['a1.txt', 'a2.txt']
/user/vlad/B/P   []   ['p.txt']
/user/vlad/B/Q   []   ['q1.txt' 'q2.txt']
/user/vlad/B   ['P', 'Q']   ['b.txt']
/user/vlad   ['C', 'A', 'B']   []
```

A, B and C are before the original directory

os	Miscellaneous operating system interfaces
`walk`	Recursively explore directory contents

created by

Mike Jackson and Greg Wilson

May 2011