

1166. Design File System Premium

Medium Topics Companies Hint

You are asked to design a file system that allows you to create new paths and associate them with different values.

The format of a path is one or more concatenated strings of the form: `/` followed by one or more lowercase English letters. For example, `/leetcode` and `/leetcode/problems` are valid paths while an empty string `""` and `"/"` are not.

Implement the `FileSystem` class:

- `bool createPath(string path, int value)` Creates a new `path` and associates a `value` to it if possible and returns `true`. Returns `false` if the path **already exists** or its parent path **doesn't exist**.
- `int get(string path)` Returns the value associated with `path` or returns `-1` if the path doesn't exist.

Example 1:

```
Input:
["FileSystem","createPath","get"]
[[],["/a",1],["/a"]]
Output:
[null,true,1]
Explanation:
FileSystem fileSystem = new FileSystem();

fileSystem.createPath("/a", 1); // return true
fileSystem.get("/a"); // return 1
```

Example 2:

```
Input:
["FileSystem","createPath","createPath","get","createPath","get"]
[[],["/leet",1],["/leet/code",2],["/leet/code"],["/c/d",1],["/c"]]
Output:
[null,true,true,2,false,-1]
Explanation:
FileSystem fileSystem = new FileSystem();

fileSystem.createPath("/leet", 1); // return true
fileSystem.createPath("/leet/code", 2); // return true
fileSystem.get("/leet/code"); // return 2
fileSystem.createPath("/c/d", 1); // return false because the parent path "/c" doesn't exist.
fileSystem.get("/c"); // return -1 because this path doesn't exist.
```

Constraints:

- `2 <= path.length <= 100`
- `1 <= value <= 109`
- Each `path` is **valid** and consists of lowercase English letters and `'/'`.
- At most `104` calls **in total** will be made to `createPath` and `get`.

Seen this question in a real interview before? 1/5

Yes No

Accepted **65.3K** Submissions **103K** Acceptance Rate **63.4%**

Topics

Hash TableStringDesignTrie

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Hint 1

What if you think of a tree hierarchy for the files?.

Hint 2

A path is a node in the tree.

Hint 3

Use a hash table to store the valid paths along with their values.

Discussion (10)