Design File System

Try to solve the Design File System problem.

Statement

Design a file system that allows us to create new paths and associate them with different values. A path has one or more concatenated strings of the form `/` followed by one or more lowercase English letters. For example, valid paths include `"/educative"` and `"/educative/problems"`, while an empty string `""` and `"/"` are not valid paths.

Implement the **FileSystem** class with the following functions:

- **bool createPath(string path, int value):** This function creates a new path and associates a value to it if possible and returns TRUE. It returns FALSE if the path already exists or if its parent path doesn't exist.

- **int get(string path)**: This function returns the value associated with the path or returns -1 if the path doesn't exist.

Constraints:

- The total number of calls to the two functions are $\leq 10^4$.
- $2 \leq$ `path.length` ≤ 100
- $1 \leq$ value $\leq 10^9$

Examples

Sample example 1

Input

	Output
`FileSystem fileSystem = new FileSystem();`	NULL
`fileSystem.createPath("/a", 1);`	TRUE
`fileSystem.get("/a");`	1
`fileSystem.createPath("/c/d", 1);`	FALSE

Understand the problem

Let's take a moment to make sure you've correctly understood the problem. The quiz below helps you check if you're solving the correct problem:

Design File System

1

What is the output for the last two lines of the following code?

```
FileSystem fileSystem = new FileSystem();
fileSystem.createPath("/b", 1);
fileSystem.get("/c");
```

A)
TRUE

1

B)
TRUE

-1

C)
FALSE

1

D)
FALSE

-1

Submit Answer

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Try it yourself

Implement your solution in the following coding playground:

Java

usercode > FileSystem.java

```java
1  import java.util.*;
2  class FileSystem {
3
4
5      public FileSystem() {
6          // Write your code here
```

```
 6        // Write your code here
 7      }
 8
 9      public boolean createPath(String path, int value) {
10          // Write your code here
11          return true;
12      }
13
14      public int get(String path) {
17      }
18  }
19
20
```

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Test Cases   Results

| Case 1 | Case 2 | Case 3 |

Input #1

```
["FileSystem","createPath","get"]
```

Input #2

```
[[],["/x",1],["/x"]]
```

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💡 **Hide Hint**

You might want to go over the Custom Data Structures pattern again.

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