Gebze Technical University

Computer Engineering

CSE222-2020-SPRING

Homework-5_Part1 Report

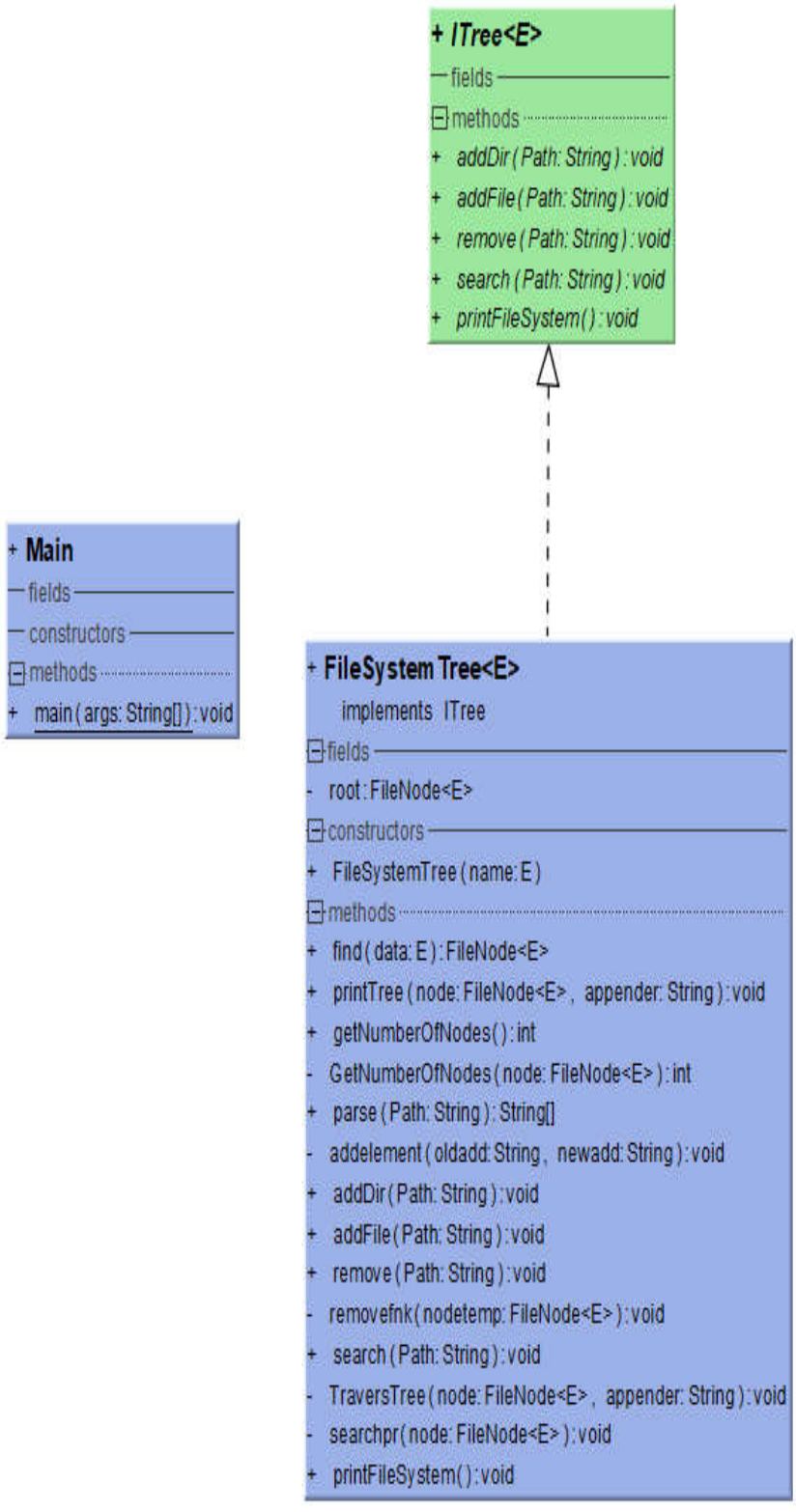
Ferdi Sönmez

161044046

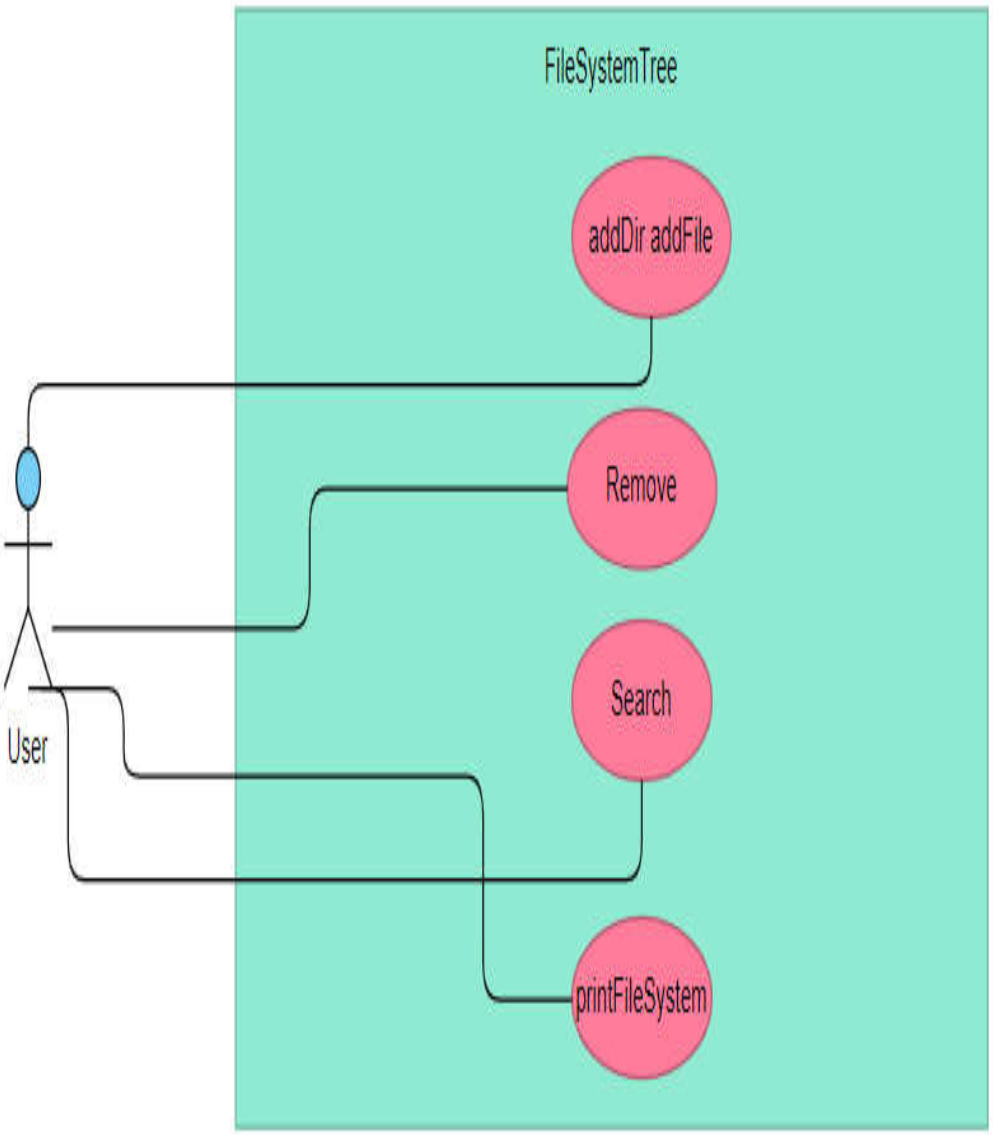
1)Problem Solutions Approach

First, the tree structure is created and the root directory is named. The given string data is divided into pieces and added to the required places. We make these installations as parent and child in the building in accordance with the tree structure. After the tree structure is formed, other functional processes are carried out in accordance with this tree structure.

2) Class Diagram



3)Use Case Diagram



4)Test Case

a)AddDir

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Result	Actual Result	Pass/Fail
T1	Call with a valid path	Call the method with a valid path	`tree.addDir("root/first_directory");`	Directories in the given path are added to the root value	Directory is added	Pass
T2	Call method with nested new directory	Call the method with nested directory	`tree.addDir("root/second_directory/third_directory");`	The given input is added to the root respectively	Directories are added	Pass

```
tree.addDir( Path: "root/first_directory");
tree.addDir( Path: "root/second_directory");
tree.addDir( Path: "root/first_directory/new_file.doc");
```

```
-root
--first_directory
----new_file.doc
--second_directory
----third_directory
----new_directory
--------data.txt
**************
```

b)AddFile

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Result	Actual Result	Pass/ Fail
T 1	Call with a valid path	Call the method with a valid path	`tree.addFile("root/second_directory/new_directory/data.txt");`	Add incoming files in order	File attached	Pass
T 2	Call with a invalid path	Call method with nested new file	`tree.addFile("root/second_directory/new_directory/new_file.txt/second_file.doc");`	Does not allow adding new files under the file	File cannot be added under the file	Pass

```
tree.addFile( Path: "root/second_directory/new_directory/new_file.txt");
tree.printFileSystem();
tree.addFile( Path: "root/second_directory/new_directory/new_file.txt/second_file.doc");
```

```
-root
--first_directory
----new_file.doc
--second_directory
----new_directory
--------new_file.txt
File cannot be added under the file
```

c) Remove

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Result	Actual Result	Pass/ Fail
T 1	Call with a valid path	Call the method with a valid path	`tree.remove("root/second_directory");`	Ask the user if the file or directory to be deleted should be deleted, and then delete it	Directory and file deleted	Pass
T 2	Call with a invalid path	Call the method with a invalid path	`tree.remove("root/second_directoryxyy1");`	İndicated that there are no files and directories	File or Directory Not Found	Pass

```
tree.remove( Path: "root/second_directory");
tree.remove( Path: "root/second_directoryxyy1");

File or Directory Not Found
-root
--first_directory
----new_file.doc
```

d) Search

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Result	Actual Result	Pass/Fail
T1	Call with a valid value	Call the method with a valid value	`tree.search("new");`	If the files and directories found are found, their path is shown	File and directory paths are shown	Pass
T2	Call with a invalid value	Call the method with a invalid value	`tree.search("new11111");`	If the not found files and directories are not found, they will not print anything.	Nothing is shown	Pass

```
tree.search( Path: "new");
tree.search( Path: "new11111");
```

```
***************
File--->root/first_directory/new_file.doc/
Directory--->root/second_directory/new_directory/
File--->root/second_directory/new_directory/new_file.txt/
```

e) printFileSystem

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Result	Actual Result	Pass/Fail
T1	Call with a valid value	Call the method with a valid value	`tree.printFileSystem();`	Print all directories and files on screen	All directories and files are printed on the screen	Pass

```
tree.printFileSystem();
```

```
-root
--first_directory
----new_file.doc
--second_directory
----new_directory
--------new_file.txt
****************
```