

Assignment 3
COIS 2020h
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Assignment 3 - Testing Documentation

Final product layout compared to diagram in assignment file

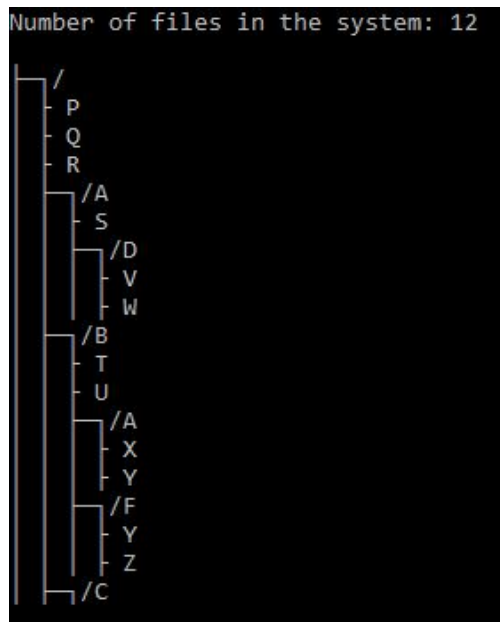
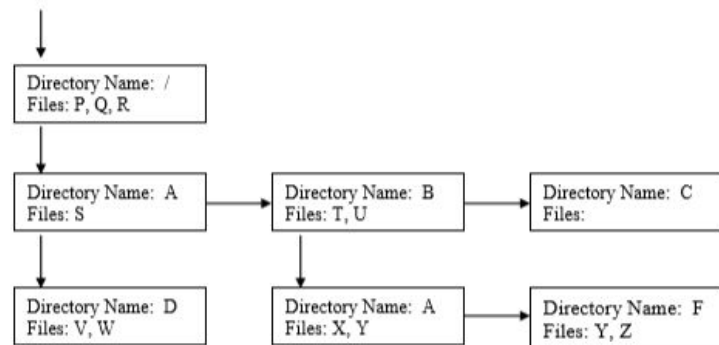
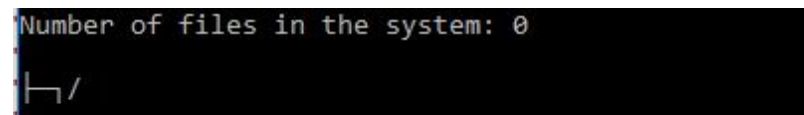


Figure 1



Creating an empty File System - FileSystem()



Adding a directory - AddDirectory()

Number of files in the system: 0

|_/

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 1

Please enter a directory to be added: /c

Directory Added

Press Any Key to Continue

Number of files in the system: 0

|_/_/c

Adding a directory to an existing directory - AddDirectory()

```
Number of files in the system: 0
/
└─ /c

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 1

Please enter a directory to be added: /c/t
Directory Added

Press Any Key to Continue
Number of files in the system: 0
/
└─ /c
    └─ /t
```

Removing an existing directory - RemoveDirectory()

```
Number of files in the system: 0
/
└─ /c

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 2

Please enter a directory to be removed: /c
Directory Removed

Press Any Key to Continue
Number of files in the system: 0
/
```

Removing an existing directory nested in a directory - RemoveDirectory()

```
Number of files in the system: 0
└─ /
  └─ /c
    └─ /t

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 2

Please enter a directory to be removed: /c/t
Directory Removed

Press Any Key to Continue
Number of files in the system: 0
└─ /
  └─ /c
```

Removing an existing directory containing nested directories - RemoveDirectory()

```
Number of files in the system: 0
└─ /
  └─ /c
    └─ /t

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 2

Please enter a directory to be removed: /c
Directory Removed

Press Any Key to Continue
Number of files in the system: 0
└─ /
```

Adding a file to existing directory- AddFile()

```
Number of files in the system: 0

├─/
└─/c

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 3

Please enter a file to be added: /c/File
File Added

Press Any Key to Continue
Number of files in the system: 1

├─/
└─/c
   └─File
```

Removing a file from existing directory - RemoveFile()

```
Number of files in the system: 1

├─/
└─/c
   └─File

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 4

Please enter a file to be removed: /c/File
File Removed

Press Any Key to Continue
Number of files in the system: 0

├─/
└─/c
```

Adding a file to root directory - AddFile()

```
Number of files in the system: 0
└─/
1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 3

Please enter a file to be added: /File
File Added

Press Any Key to Continue
Number of files in the system: 1
└─/
└─File
```

Removing a file from root directory - RemoveFile()

```
Number of files in the system: 1
└─/
└─File
1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 4

Please enter a file to be removed: /File
File Removed

Press Any Key to Continue
Number of files in the system: 0
└─/
```

Trying to add the root directory "/" - AddDirectory()

```
Number of files in the system: 0
└─/

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 1

Please enter a directory to be added: /
Invalid directory passed

Press Any Key to Continue
Number of files in the system: 0
└─/
```

Removing the root directory "/" - RemoveDirectory()

```
Number of files in the system: 0
└─/

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 2

Please enter a directory to be removed: /
Path is Undefined

Press Any Key to Continue
Number of files in the system: 0
└─/
```

Adding a pre-existing directory - AddDirectory()

```
Number of files in the system: 0
t |  /
c |  /c

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select an option: 1

Please enter a directory to be added: /c
Directory Already Exists or the Path is Undefined

Press Any Key to Continue
Number of files in the system: 0
t |  /
c |  /c
```


Removing a non-existent directory - RemoveDirectory()

```
Number of files in the system: 0
c:\>
c:\>
1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 2
c:\>
Please enter a directory to be removed: /d
Path is Undefined

Press Any Key to Continue
Number of files in the system: 0
c:\>
c:\>
```

```
Number of files in the system: 0
c:\>
c:\>
1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 2

Please enter a directory to be removed: /d/c
Path is Undefined
```

Adding a pre-existing file - AddFile()

```
Number of files in the system: 1

H/
H/c
H File

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 3

Please enter a file to be added: /c/File
File Already Exists in Directory or the Path is Undefined

Press Any Key to Continue
Number of files in the system: 1

H/
H/c
H File
```

Removing a non-existent file - RemoveFile()

```
Number of files in the system: 0

H/
H/c

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 4

Please enter a file to be removed: /File
Path is Undefined

Press Any Key to Continue
Number of files in the system: 0

H/
H/c
```

Adding a directory with the same name as an existing directory on same level - AddDirectory()

```
Number of files in the system: 0
|
|_ /
|_ /c

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 1

Please enter a directory to be added: /c
Directory Already Exists or the Path is Undefined

Press Any Key to Continue
Number of files in the system: 0
|
|_ /
|_ /c
```

Adding a directory with the same name as an existing directory on another level - AddDirectory()

```
Number of files in the system: 0
|
|_ /
|_ /c

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 1

Please enter a directory to be added: /c/c
Directory Added

Press Any Key to Continue
Number of files in the system: 0
|
|_ /
|_ /c
|_ /c
```

Adding a file with the same name as an existing file in another directory - AddFile()

```
Number of files in the system: 1

/
├── /c
│   └── File
└── /c

1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select an option: 3

Please enter a file to be added: /c/c/File
File Added

Press Any Key to Continue
Number of files in the system: 2

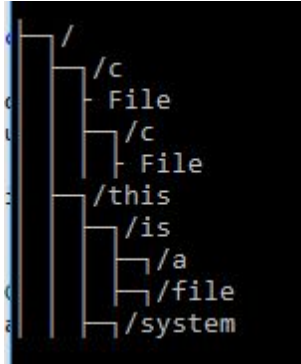
/
├── /c
│   ├── File
│   └── /c
│       └── File
└── /c
```

Calculation number of files in the file system - NumberFiles()

```
Number of files in the system: 2

/
├── /c
│   ├── File
│   └── /c
│       └── File
└── /c
```

Printing the file system - PrintFileSystem()



Trying to add a directory address "//" - Option()

```
Number of files in the system: 0
 /
1. Add directory
2. Delete directory
3. Add file
4. Delete file
Please select and option: 1
Please enter a directory to be added: //
Invalid directory passed
Press Any Key to Continue
Number of files in the system: 0
 /
```

Trying to add a directory with empty address - Option()

```
1. Add directory
2. Delete directory
3. Add file
4. Delete file
Please select and option: 1
Please enter a directory to be added:
Directory Already Exists or the Path is Undefined
```

Trying to add a file with empty address - Option()

```
1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: 3

Please enter a file to be added:
Invalid directory passed
```

Trying to choose an invalid option - Option()

```
1. Add directory
2. Delete directory
3. Add file
4. Delete file

Please select and option: k
Error invalid selection
```