HW4 REPORT

```
===== File System Management Menu =====
1. Change directory
2. List directory contents
3. Create file/directory
4. Delete file/directory
5. Move file/directory
6. Search file/directory
7. Print directory tree
8. Sort contents by date created
9. Exit
```

1) Change directory

```
Please select an option: 1

Current Path: root/users/serdar/documents/
Enter new directory path: /users/serdar/media/music
Directory changed to: root/users/serdar/media/music/
```

Absolute path format:

To write an absolute path don't write 'root' at the start and always start with '/'. Example: /user/serdar/photos

To return to root path just write '/'.

Note: This path format must be used in other functions too.

```
Please select an option: 1

Current Path: root/users/serdar/
Enter new directory path: documents
Changed directory to: root/users/serdar/documents/
```

Relative path format:

You can go into child directories simply by writing child directory name.

```
Please select an option: 1

Current Path: root/
Enter new directory path: /users/serdar/documents/media/music
Directory not found: /users/serdar/documents/media/music
Directory changed to: root/users/serdar/documents/
```

Wrong path: Directory path is changed until wrong part. In this example there is no directory named 'media' inside 'documents' so path until media is the new directory path: .../serdar/documents/.

2) List directory contents

```
Directory Tree:
root/
        users/
                serdar/
                        documents/
                        media/
                                gallery/
                                        photos/
                                                photo1
                                        videos/
                                                video1
                                music/
                                        music2


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9. Exit
Please select an option: 1

Current Path: root/users/serdar/media/music/
Enter new directory path: /users/serdar/media
Directory changed to: root/users/serdar/media/


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7. Print directory tree
8. Sort contents by date created
9. Exit
Please select an option: 2


Contents of root/users/serdar/media/:

Directory: gallery
Directory: music
```

3) Create file/directory

```
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5. Move file/directory
6. Search file/directory
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8. Sort contents by date created
9. Exit
Please select an option: 3

Current Path: root/
Create file or directory (f/d): d
Enter name for new directory: music
Directory created: music/


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6. Search file/directory
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8. Sort contents by date created
9. Exit
Please select an option: 3

Current Path: root/
Create file or directory (f/d): f
Enter name for new file: music1
File created: music1
```

The file/directory is created under current directory.

4) Delete file/directory

Delete file:

```
Please select an option: 2


Contents of root/users/serdar/media/music/:

File: music1
File: music2


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9. Exit
Please select an option: 4

Current Path: root/users/serdar/media/music/
Enter name of file/directory to delete: music1
Successfully deleted music1.


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6. Search file/directory
7. Print directory tree
8. Sort contents by date created
9. Exit
Please select an option: 2


Contents of root/users/serdar/media/music/:

File: music2
```

Delete directory:

```
Directory Tree:
root/
        users/
                serdar/
                        documents/
                        media/
                                gallery/
                                        photos/
                                                photo1
                                        videos/
                                                video1
                                music/
                                        music2
```

```
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7. Print directory tree
8. Sort contents by date created
9. Exit
Please select an option: 4

Current Path: root/users/serdar/media/
Enter name of file/directory to delete: gallery
Successfully deleted gallery.


===== File System Management Menu =====
1. Change directory
2. List directory contents
3. Create file/directory
4. Delete file/directory
5. Move file/directory
6. Search file/directory
7. Print directory tree
8. Sort contents by date created
9. Exit
Please select an option: 7

Directory Tree:
root/
        users/
                serdar/
                        documents/
                        media/
                                music/
                                        music2
```

All content of target directory is deleted recursively. It iterates the directory and deletes files, if it sees a non-empty directory it recalls itself by sending the non-empty directory's object. After that it also deletes empty directories.

5) Move file/directory

Move directory

```
Directory Tree:
root/
        documents/
                pictures/
                        picture1.png
                notes/
                        text1.txt
        picture2.png
        picture3.png
        text2.txt
        text3.txt


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7. Print directory tree
8. Sort contents by date created
9. Exit
Please select an option: 5

Current Path: root/documents/
Enter name of file/directory to move: notes
Enter new directory path: /documents/pictures
Successfully moved notes into /documents/pictures.


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9. Exit
Please select an option: 7

Directory Tree:
root/
        documents/
                pictures/
                        picture1.png
                        notes/
                                text1.txt
        picture2.png
        picture3.png
        text2.txt
        text3.txt
```

Move file

```
Directory Tree:
root/
        documents/
                pictures/
                        picture1.png
                notes/
                        text1.txt
        picture2.png
        picture3.png
        text2.txt
        text3.txt


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7. Print directory tree
8. Sort contents by date created
9. Exit
Please select an option: 5

Current Path: root/
Enter name of file/directory to move: text2.txt
Enter new directory path: /documents/notes
Successfully moved text2.txt into /documents/notes.


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6. Search file/directory
7. Print directory tree
8. Sort contents by date created
9. Exit
Please select an option: 7

Directory Tree:
root/
        documents/
                pictures/
                        picture1.png
                notes/
                        text1.txt
                        text2.txt
        picture2.png
        picture3.png
        text3.txt
```

6) Search file/directory

```
Directory Tree:
root/
        users/
                serdar/
                        documents/
                        media/
                                music/
                                        music2
                        dsadsa
```

```
Please select an option: 6

Enter name of file/directory to search: ewqewqe
There is no file or directory named ewqewqe.


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5. Move file/directory
6. Search file/directory
7. Print directory tree
8. Sort contents by date created
9. Exit
Please select an option: 6

Enter name of file/directory to search: dsadsa
/root/users/serdar/dsadsa
```

7) Print directory tree

```
===== File System Management Menu =====
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9. Exit
Please select an option: 7

Directory Tree:
root/
        users/
                serdar/
                        documents/
                                wwww
                                dsadsa
                        media/
                                music/
                                        music2
```

8) Sort contents by date created

```
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9. Exit
Please select an option: 8

Sorted contents of documents by date created:
dsadsa (2024-04-22 21:21:56.647)
wwww (2024-04-22 21:23:51.012)
```

Here 'dsadsa' was created first but it was moved into documents directory after 'wwww'. Thats why when in directory tree we see 'wwww' above 'dsadsa' (check the photo at *'7) Print directory tree'* part) but when we sort by date we see 'dsadsa' is created earlier and above 'wwww'.

9) Exit

```
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7. Print directory tree
8. Sort contents by date created
9. Exit
Please select an option: 9
Exiting...
```