CSE 222 HOMEWORK 4: File & Folder Directory Tree System

This assignment involves the implementation of a File and Folder Directory Tree system using recursion and object-oriented programming.

Outputs

- Menu

```
===== 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
Current directory: D:/
```

- Creating Files and Directories

```
Please select an option: 3
Current directory: D:/
Create file or directory(f/d): d
Enter name for new directory: home
Directory created: home/
```

```
Please select an option: 3
Current directory: D:/
Create file or directory(f/d): f
Enter name for new file: project.txt
File created: project.txt
```

- Listing Directory Contents

```
Current directory: D:/home/apps
Please select an option: 2
Listing contents of D:/home/apps:
project.txt
* games/
homework4.txt
homework.docx
```

- Changing Directory

```
Current directory: D:/
Please select an option: 1
Current directory: D:/
Enter new directory path: D:/home
Directory changed to: D:/home
```

- Deleting Files And Directories

```
Current directory: D:/home
Please select an option: 4
Current directory: D:/home
Enter name of file/directory to delete: text.txt
File deleted: text.txt/
```

```
Current directory: D:/home
Please select an option: 4
Current directory: D:/home
Enter name of file/directory to delete: apps
Directory deleted: apps/
```

- Moving Files and Directories

```
===== 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
Current directory: D:/home
Please select an option: 5
Current directory: D:/home
Enter name of file/directory to move: apps
Enter new directory path: D:/
===== 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
Current directory: D:/home
Please select an option: 1
Current directory: D:/home
Enter new directory path: D:/
Directory changed to: D:
===== 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
Current directory: D:/
Please select an option: 2
Listing contents of D:/:
* home/
project.txt
* apps/
```

- Searching for Files and Directories

```
Current directory: D:/home/apps
Please select an option: 6
Search query: project.txt
Searching from root...
Found: D:/home/apps/project.txt
```

- Printing the Directory Tree

```
Current directory: D:/home/apps
Please select an option: 7
Path to current directory from root:
* D:/
   * home/
      * apps/
         project.txt
```

- Sorting Directory Contents

```
Current directory: D:/home/apps
Please select an option: 8
Sorted contents of D:/home/apps
project.txt (2024-04-21 20:38:12.641)
* games/ (2024-04-21 20:40:05.759)
homework4.txt (2024-04-21 20:40:21.012)
homework.docx (2024-04-21 20:40:30.807)
```