I have attached the error checks for the commands as screenshots. My programme executes all commands as desired.

### Run Programme

```
DESKTOP-IEVDRBN:/mnt/d/hw4$ make
javac -classpath . Main.java
acar@DESKTOP-IEVDRBN:/mnt/d/hw4$ make run
iava Main
==== File System Management Menu =====
Current directory: /root

    Change directory

List directory contents
Create file/directory
Delete file/directory
Move file/directory
Search for file/directory
7. Print directory tree
Sort directory by date
9. Exit
Type 'help' for more options.
Select an option or 'help':
```

# Change directory

```
Select an option or 'help': 1
Current directory: /root
Enter directory name or '..' to go up: directory1
Directory changed to: /root/directory1
Select an option or 'help': 1
Current directory: /root/directory1
Enter directory name or '..' to go up: ..
Directory changed to: /root
Select an option or 'help': 1
Current directory: /root
Enter directory name or '..' to go up: s
Directory not found.
```

#### List directory contents

```
Select an option or 'help': 2
Listing contents of /root:

* Projects/

* Documents/

* Music/

* Videos/

* Pictures/
file.txt
Report.pdf
```

# Create file/directory

```
Select an option or 'help': 3
Current directory: /root
Create file or directory (f/d): f
Enter name for new file: file1.txt
File created: file1.txt
```

```
Select an option or 'help': 3
Current directory: /root
Create file or directory (f/d): d
Enter name for new directory: directory1
Directory created: directory1/
```

```
Select an option or 'help': 3
Current directory: /root
Create file or directory (f/d): w
Invalid type. Please enter 'f' for file or 'd' for directory.
```

### Delete file/directory

Select an option or 'help': 4 Enter name of file/directory to delete: a File or directory not found.

Select an option or 'help': 4 Enter name of file/directory to delete: file1.txt file1.txt has been deleted.

Select an option or 'help': 4
Enter name of file/directory to delete: directory1
directory1 has been deleted.

# Move file/directory

Select an option or 'help': 5
Enter the name of file/directory to move: file1.txt
Enter new directory path: Documents
file1.txt moved to Documents

Select an option or 'help': 2 Listing contents of /root/Documents: file1.txt

# Search for file/directory

Select an option or 'help': 6 Enter name to search for: Ceza.mp3 Searching from root... Found: /root/Music/Rap/Ceza.mp3

Select an option or 'help': 6 Enter name to search for: Denemee Searching from root... No file or directory found by the name 'Denemee'.

# Print directory tree

```
Select an option or 'help': 7
Path to current directory from root:
* root/
    Deneme
    Deneme1
    * Music/
        * Rap/ (Current Directory)
        Ceza.mp3
```

# Sort directory tree

```
Select an option or 'help': 8
Sorted contents of /root/Documents by date created:
file1.txt (2024-04-22 00:13:34)
* Deneme2/ (2024-04-22 00:20:02)
* Deneme/ (2024-04-22 00:20:29)
Aaaa (2024-04-22 00:20:36)
```

#### Exit

```
Select an option or 'help': 9
Exiting...
```

#### Help

```
==== File System Management Menu =====
Current directory: /root
1. Change directory
2. List directory contents
Create file/directory
Delete file/directory
Move file/directory
6. Search for file/directory
7. Print directory tree
8. Sort directory by date
9. Exit
Type 'help' for more options.
Select an option or 'help': help
Help Menu:

    Change directory - Change the current directory.

2: List contents - List all files and directories in the current directory.
Create - Create a new file or directory.
Delete - Delete a specified file or directory.
5: Move - Move a specified file or directory to a new location.
6: Search - Search for a file or directory.
7: Print tree - Print the directory tree from the current directory.
8: Sort by date - Sort the contents of the current directory by date.
9: Exit - Exit the program.
```