

Copy Command with Normal and Threaded Recursion

Normal Recursion:

```
bhanu@mbhanu:~/00PD_Project$ g++ MT23043_Project.cpp -o MT23043_Project
bhanu@mbhanu:~/00PD_Project$ ./MT23043_Project
/home/bhanu/00PD_Project $ ls
mnp.sh
MT23043_Project.cpp
directory1/
d2/
MT23043_Project
Profiling/
d3/
d1/
/home/bhanu/00PD_Project $ cd directory1
/home/bhanu/00PD_Project/directory1 $ ls
file3.txt
file2.txt
file5.txt
file1.txt
file4.txt
/home/bhanu/00PD_Project/directory1 $ cd -u
/home/bhanu/00PD_Project $ cp -r directory1 d1
Normal Recursion
Copy execution time 12933.1 milliseconds
Successfully copied "/home/bhanu/00PD_Project/directory1" to d1
/home/bhanu/00PD_Project $ cd d1
/home/bhanu/00PD_Project/d1 $ ls
file3.txt
file2.txt
file5.txt
file1.txt
file4.txt
```

Here we can see that there are 5 files of 1 GB each in 'directory1'

I used 'cp -r directory1 d1' to copy all those files to 'd1'

We can see all the files got copied to 'd1' directory in 12933.1 milliseconds.

Threaded Recursion:

```
/home/bhanu/OOPD_Project $ cd d1
/home/bhanu/OOPD_Project/d1 $ ls
file3.txt
file2.txt
file5.txt
file1.txt
file4.txt
/home/bhanu/OOPD_Project/d1 $ cd -u
/home/bhanu/OOPD_Project $ cp -rt d1 d2
Threaded Recursion
Copy execution time: 9804.1 milliseconds
Successfully copied "/home/bhanu/OOPD_Project/d1" to d2
/home/bhanu/OOPD_Project $ cd d2
/home/bhanu/OOPD_Project/d2 $ ls
file3.txt
file2.txt
file5.txt
file1.txt
file4.txt
/home/bhanu/OOPD_Project/d2 $ |
```

Here we can see that there are 5 files of 1 GB each in 'd1'

I used 'cp -r d1 d2' to copy all those files to 'd2'

We can see all the files got copied to 'd2' directory in 9804.1 milliseconds.

Move Command with Normal and Threaded Recursion

Normal Recursion

```
/home/bhanu/OOPD_Project $ cd d2
/home/bhanu/OOPD_Project/d2 $ ls
file3.txt
file2.txt
file5.txt
file1.txt
file4.txt
/home/bhanu/OOPD_Project/d2 $ cd -u
/home/bhanu/OOPD_Project $ mv -r d2 d3
Normal Recursion
Move execution time: 1.80315 milliseconds
Successfully moved "/home/bhanu/OOPD_Project/d2" to d3
/home/bhanu/OOPD_Project $ cd d3
/home/bhanu/OOPD_Project/d3 $ ls
file3.txt
file2.txt
file5.txt
file1.txt
file4.txt
```

Here we can see that there are 5 files of 1 GB each in 'd2'

I used 'mv -r d2 d3' to move all those files to 'd3'

We can see all the files got moved to 'd3' directory in 1.80315 milliseconds.

Threaded Recursion

```
/home/bhanu/OOPD_Project $ cd d2
/home/bhanu/OOPD_Project/d2 $ ls
/home/bhanu/OOPD_Project/d2 $ cd -u
/home/bhanu/OOPD_Project $ cd d3
/home/bhanu/OOPD_Project/d3 $ ls
file3.txt
file2.txt
file5.txt
file1.txt
file4.txt
/home/bhanu/OOPD_Project/d3 $ cd -u
/home/bhanu/OOPD_Project $ mv -rt d3 d2
Threaded Recursion
Move execution time: 0.201462 milliseconds
Successfully moved "/home/bhanu/OOPD_Project/d3" to d2
/home/bhanu/OOPD_Project $ cd d2
/home/bhanu/OOPD_Project/d2 $ ls
file3.txt
file2.txt
file5.txt
file1.txt
file4.txt
```

Here we can see that there are 5 files of 1 GB each in 'd3' and 'd2' is currently empty
I used 'mv -rt d3 d2' to move all those files to 'd2'
We can see all the files got moved to 'd2' directory in 0.201462 milliseconds.