Mini Tasks-1

Date: 14.08.2019
Deadline : 17.08.2019 11:59pm(Please avoid last minute submissions to avoid any hassles)
Goal: To get familiar with read/write system calls and get an idea about /proc in linux

TASK 1

The task is to copy files -
1. Inside same directory with different name.
2. From a given directory to another directory.
3. From system to a USB drive or vice-versa.

You can **only use Read and Write system calls** for performing copy operation.
Also measure the performance(time taken) to copy a file in all cases.
Try copying:
1. 1000 1KB files and 1 GB file to see the difference between copying multiple small files and a single large file.
2. A multimedia file

Instructions :-

1. Find out the command to copy a file in Linux environment and understand its working.
2. Learn about system calls and how they work.
3. The input might be a very large text file or video file(5GB).Your code should be able to handle such large files.

TASK 2

Write a program which takes process id as input and display the following :
1. tcom - filename of the executable
2. state – print R for running ,S for Sleeping ,D for sleeping in an uninterruptible wait, Z for zombie, T for traced or stopped
3. process id of parent process
4. session id

And also print the following system stats(not limited to) :
1. total number of context switches across all CPUs
2. number of processes currently running on CPUs.
3. number of processes currently blocked, waiting for I/O to complete.

Languages Allowed: C/C++
Please post your queries on moodle if any.