

ASSIGNMENT 1

The user should pass the system call, process id and file name (where the data must be stored) as parameters to the system call. If the system call function returns a 0, it means the system call properly functions. Else, it returns -1.

The entire display commands can be viewed by writing dmesg.

Task_struct is a doubly linked list and its members can be accessed via -> sign. So, I made a structure of type task_struct and assigned it to the task struct present in Linux. Now, task struct is traversed throughout to find the entry which matches with the PID passed as a parameter. Process id, name, priority, state, parent process id are printed.

For opening a file, used sys_open() function which opens the given file and returns an integer. Unsuccessful opening of the file will return a negative integer. If a file with the given filename exists, then the data is written into it erasing the previously written data. Else if there exists no such file, a new file is created and further procedures are carried out. If the file is successfully opened, it is written with the data (which is concatenated using sprintf() function). After writing into a file, the file is closed.