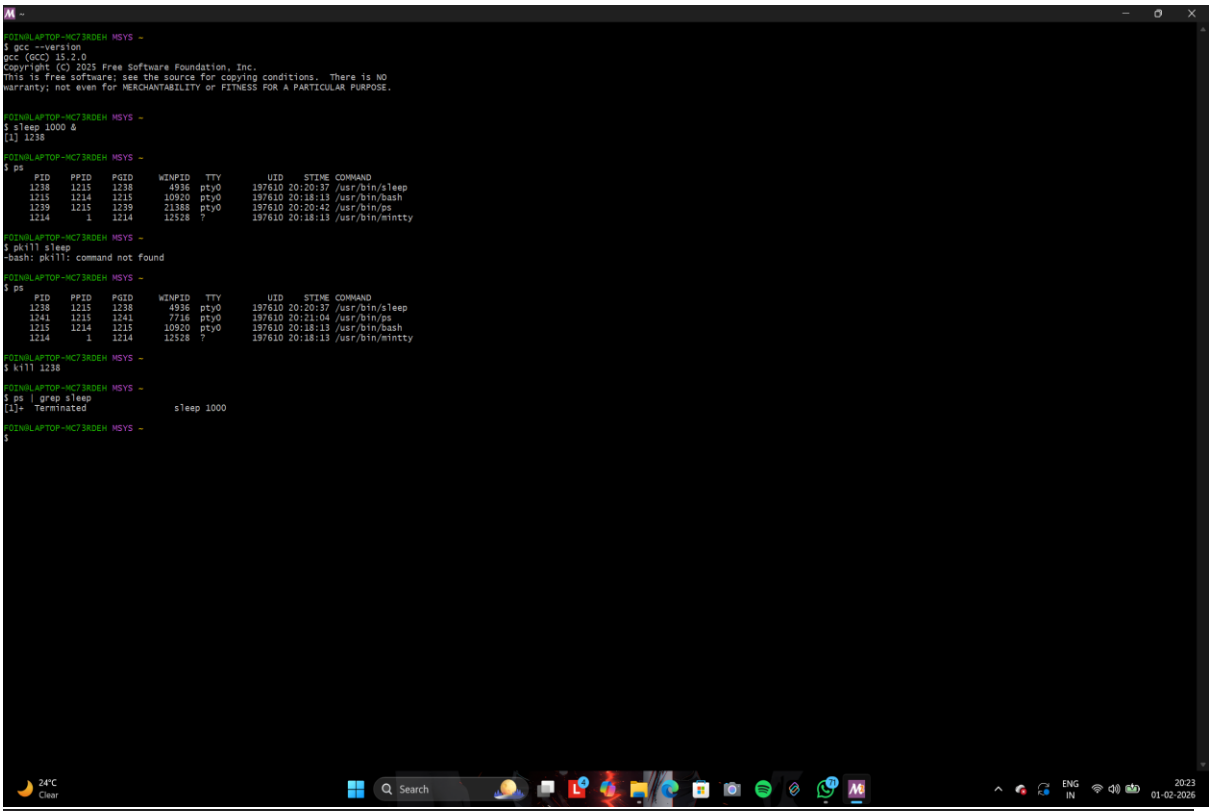
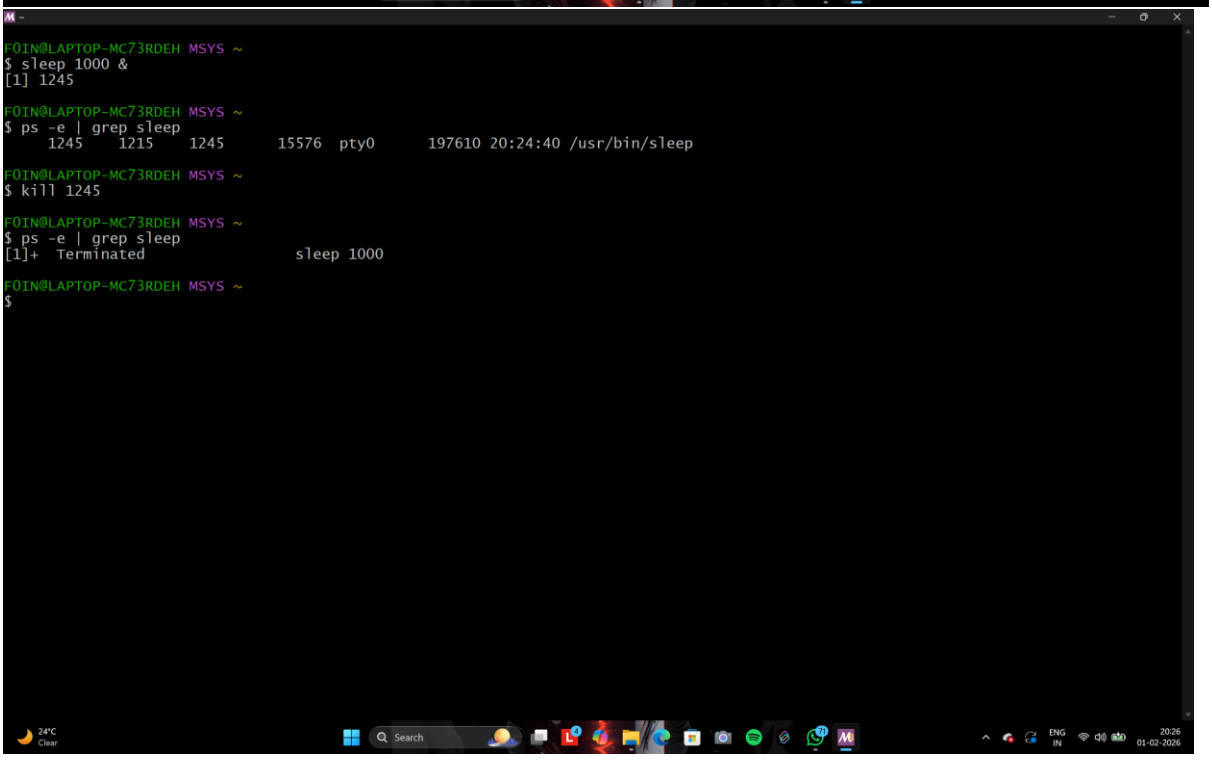
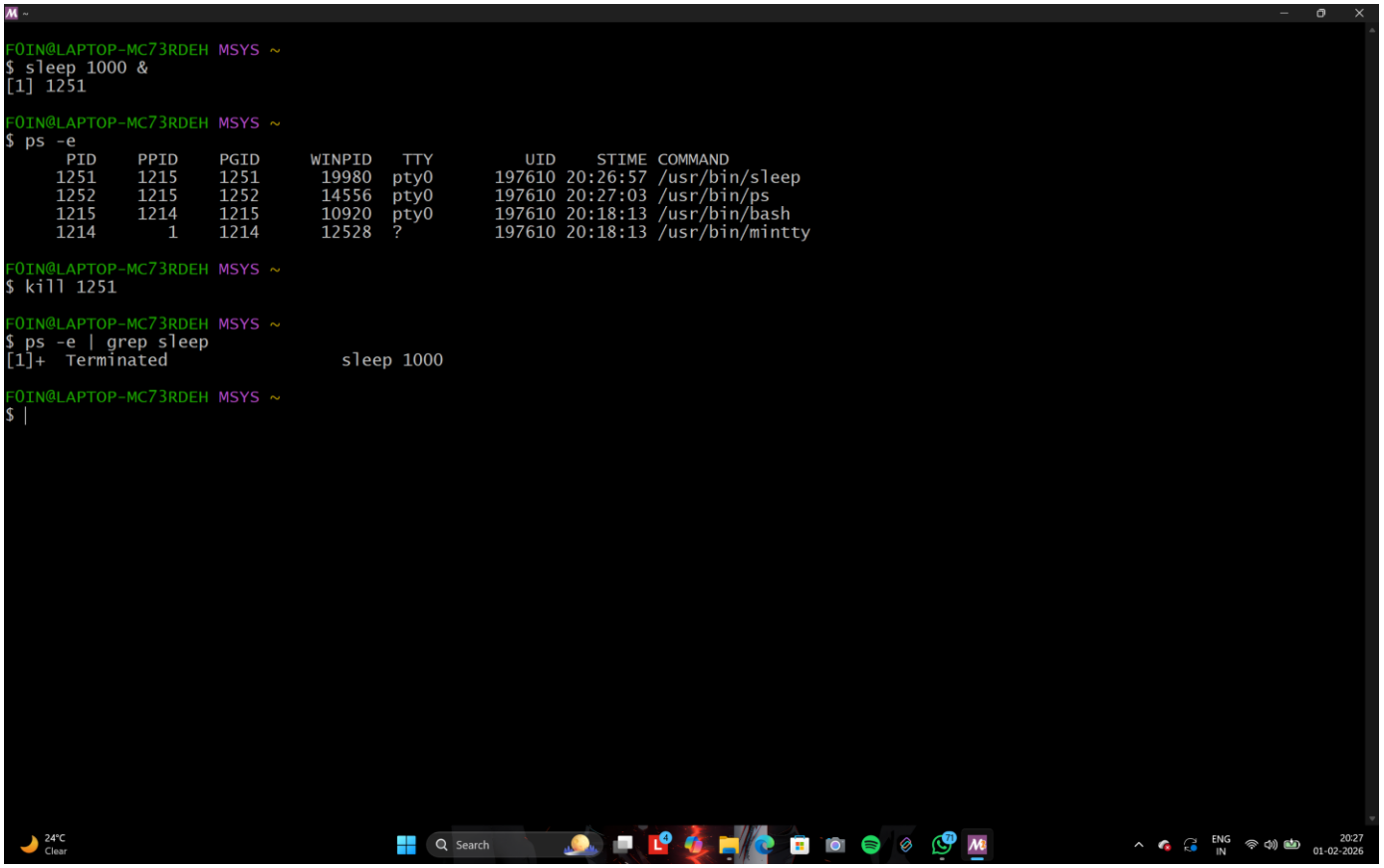
1. Adam is working in an IT company. He has been given a task to reduce the load of a system by killing some of the processes running in the LINUX operating system. Which commands will he use to complete the given task with the help of the following operation?
   - Kill processes by name
   - Kill a process based on the process name
   - Kill a single process at a time with the given process ID

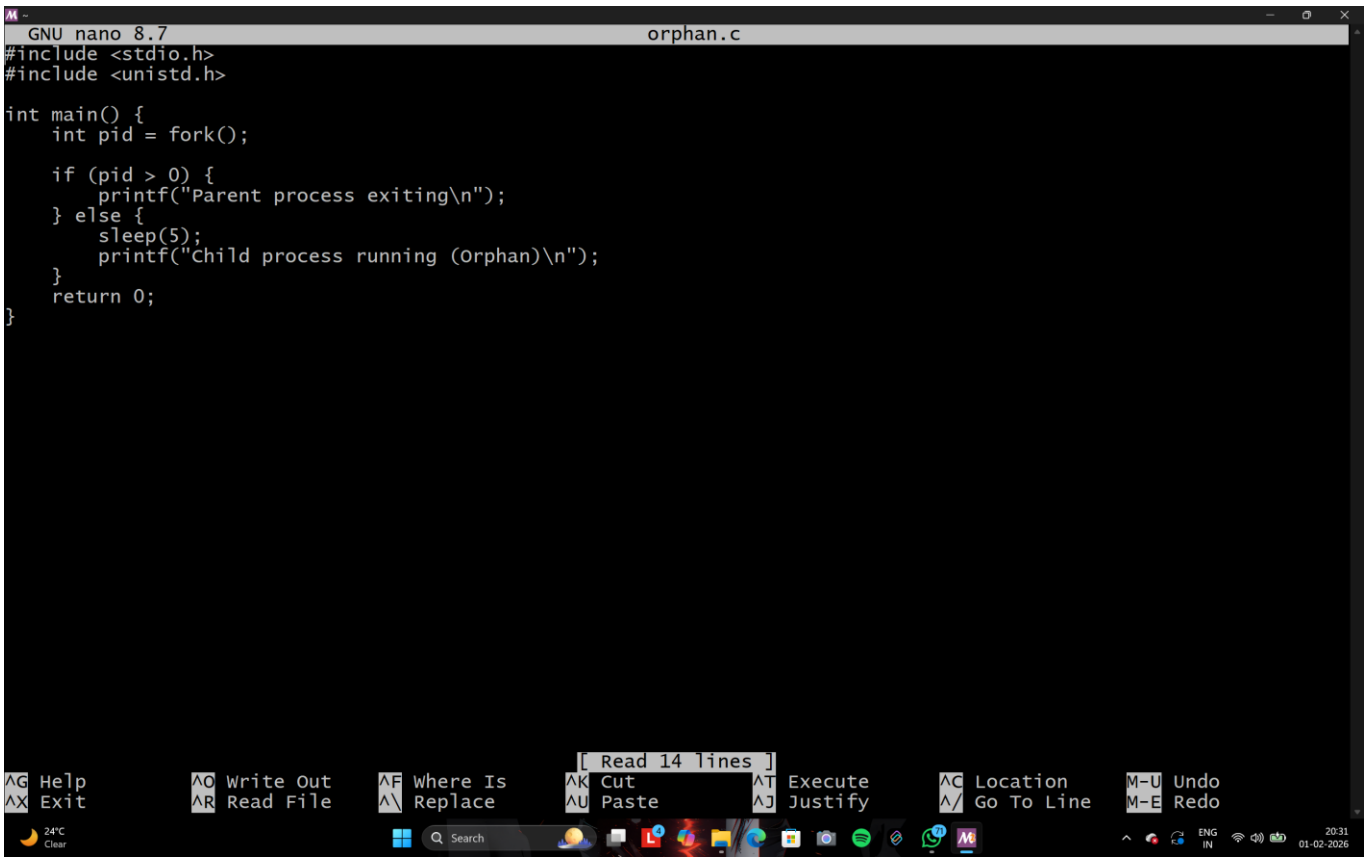






2. Write a program for process creation using C

- Orphan Process



```
FOIN@LAPTOP-MC73RDEH MSYS ~
$ nano orphan.c

FOIN@LAPTOP-MC73RDEH MSYS ~
$ gcc orphan.c -o orphan

FOIN@LAPTOP-MC73RDEH MSYS ~
$ ./orphan
Parent process exiting

FOIN@LAPTOP-MC73RDEH MSYS ~
$ Child process running (Orphan)
$
```

- Zombie Process

```
  GNU nano 8.7                          zombie.c                          Modified
#include <stdio.h>
#include <unistd.h>

int main() {
    int pid = fork();

    if (pid == 0) {
        // Child process
        printf("Child process finished\n");
    } else {
        // Parent process
        sleep(10);   // parent sleeps, child becomes zombie
        printf("Parent process running\n");
    }
    return 0;
}

^G Help        ^O Write Out   ^F Where Is    ^K Cut         ^T Execute     ^C Location    M-U Undo
^X Exit        ^R Read File   ^\ Replace     ^U Paste       ^J Justify     ^/ Go To Line  M-E Redo
```

```
FOIN@LAPTOP-MC73RDEH MSYS ~
$ nano zombie.c

FOIN@LAPTOP-MC73RDEH MSYS ~
$ gcc zombie.c -o zombie

FOIN@LAPTOP-MC73RDEH MSYS ~
$ ./zombie
Child process finished
Parent process running

FOIN@LAPTOP-MC73RDEH MSYS ~
$
```

3.Create the process using fork () system call.

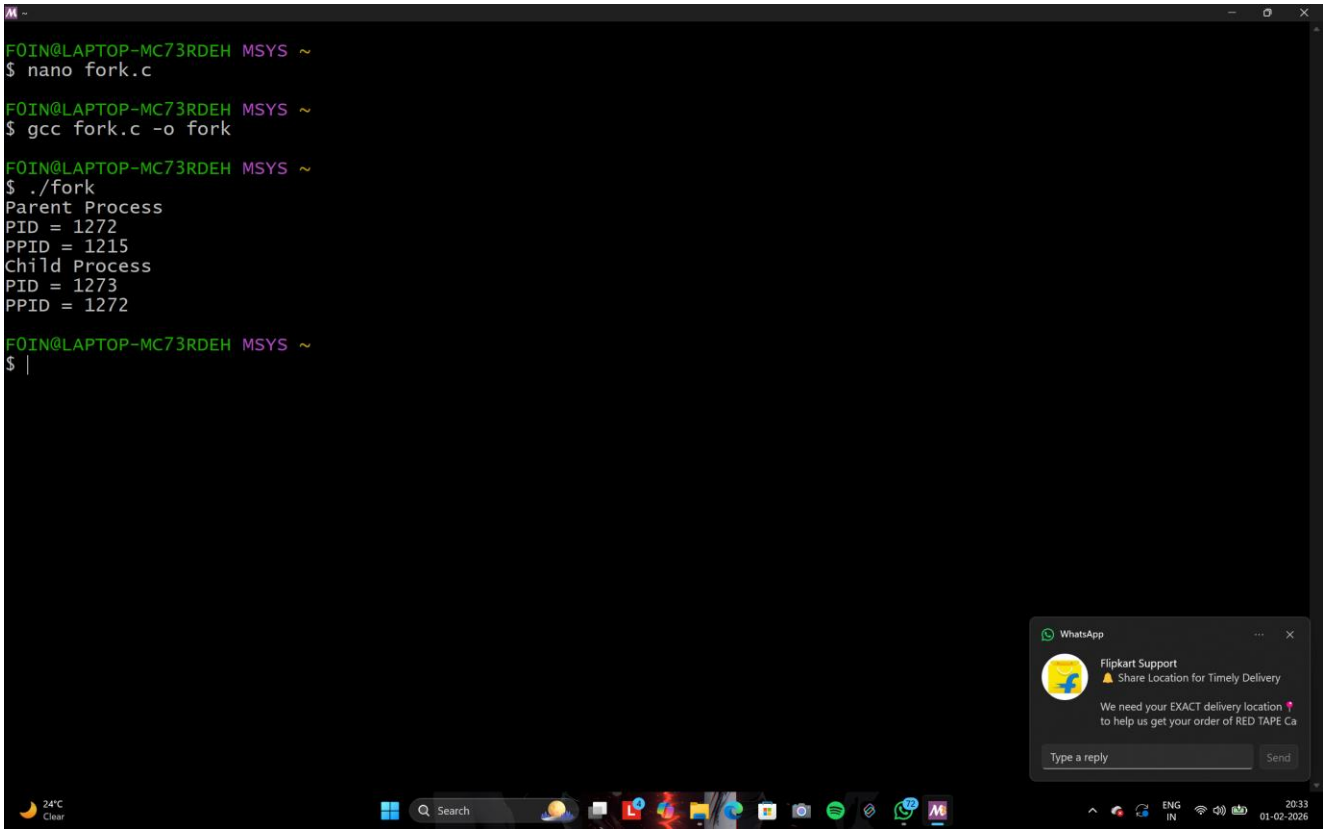
- Child Process creation
- Parent process creation
- PPID and PID

```
  GNU nano 8.7                                  fork.c
#include <stdio.h>
#include <unistd.h>

int main() {
    int pid = fork();

    if (pid == 0) {
        printf("Child Process\n");
        printf("PID = %d\n", getpid());
        printf("PPID = %d\n", getppid());
    } else {
        printf("Parent Process\n");
        printf("PID = %d\n", getpid());
        printf("PPID = %d\n", getppid());
    }
    return 0;
}
```

```
                [ Read 17 lines ]
^G Help      ^O Write Out   ^F Where Is    ^K Cut       ^T Execute    ^C Location   M-U Undo
^X Exit      ^R Read File   ^\ Replace     ^U Paste     ^J Justify    ^/ Go To Line M-E Redo
```


FOIN@LAPTOP-MC73RDEH MSYS ~
$ nano fork.c
FOIN@LAPTOP-MC73RDEH MSYS ~
$ gcc fork.c -o fork
FOIN@LAPTOP-MC73RDEH MSYS ~
$ ./fork
Parent Process
PID = 1272
PPID = 1215
Child Process
PID = 1273
PPID = 1272
FOIN@LAPTOP-MC73RDEH MSYS ~
$
WhatsApp
Flipkart Support
Share Location for Timely Delivery
We need your EXACT delivery location
to help us get your order of RED TAPE Ca
Type a reply
Send
24°C
Clear
Search
ENG
IN
20:33
01-02-2026