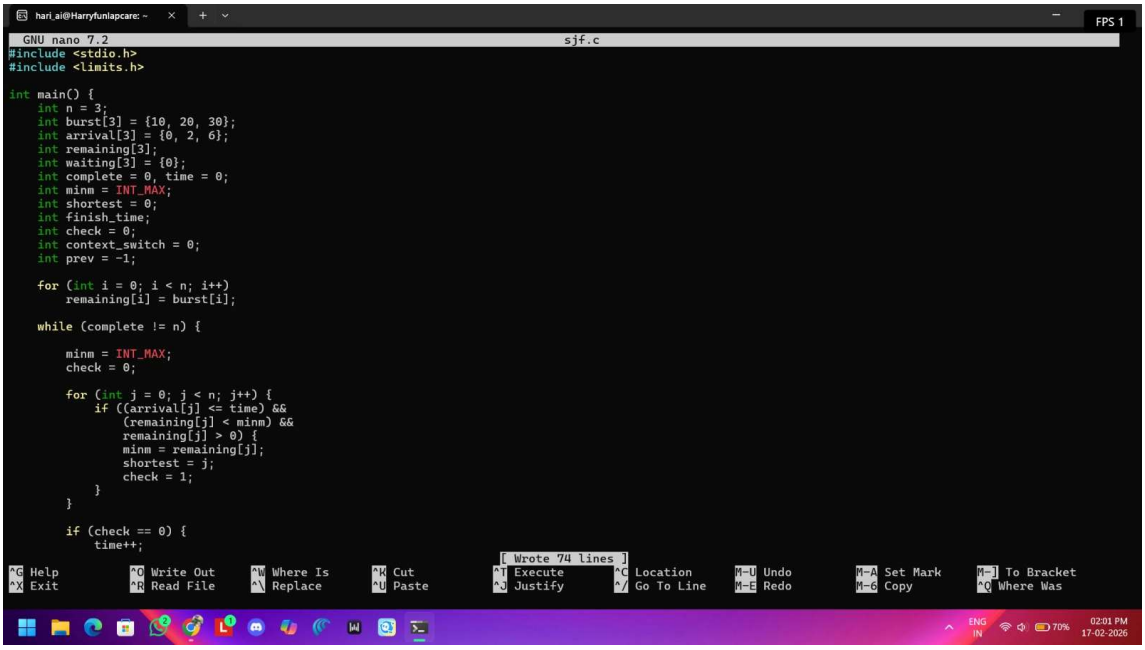
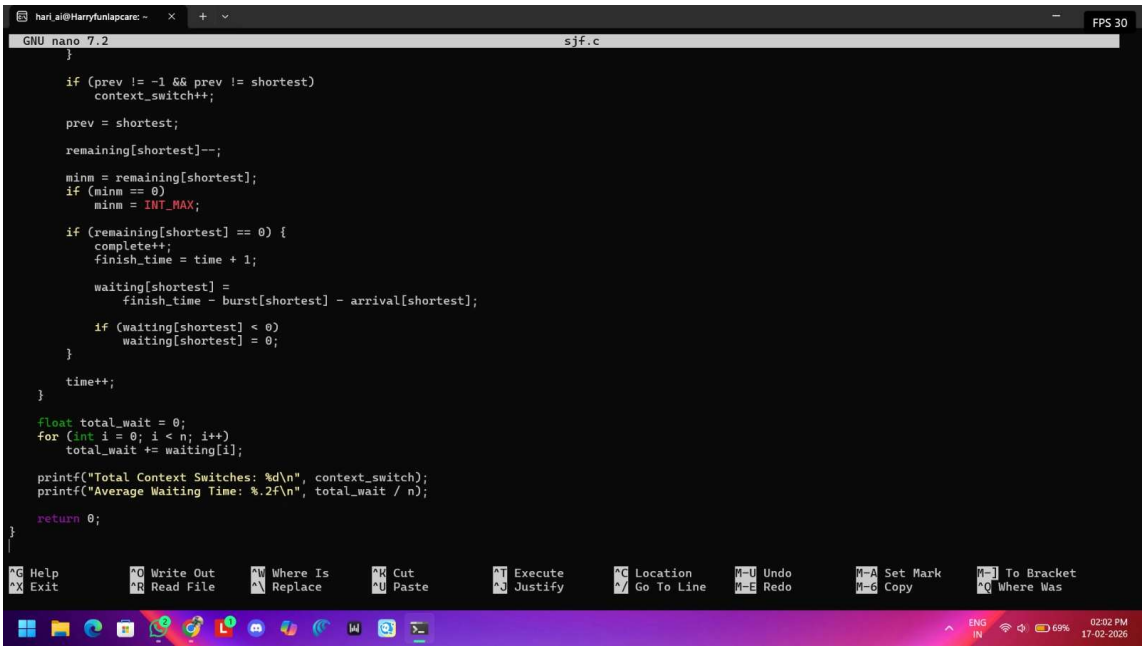
Practical 5

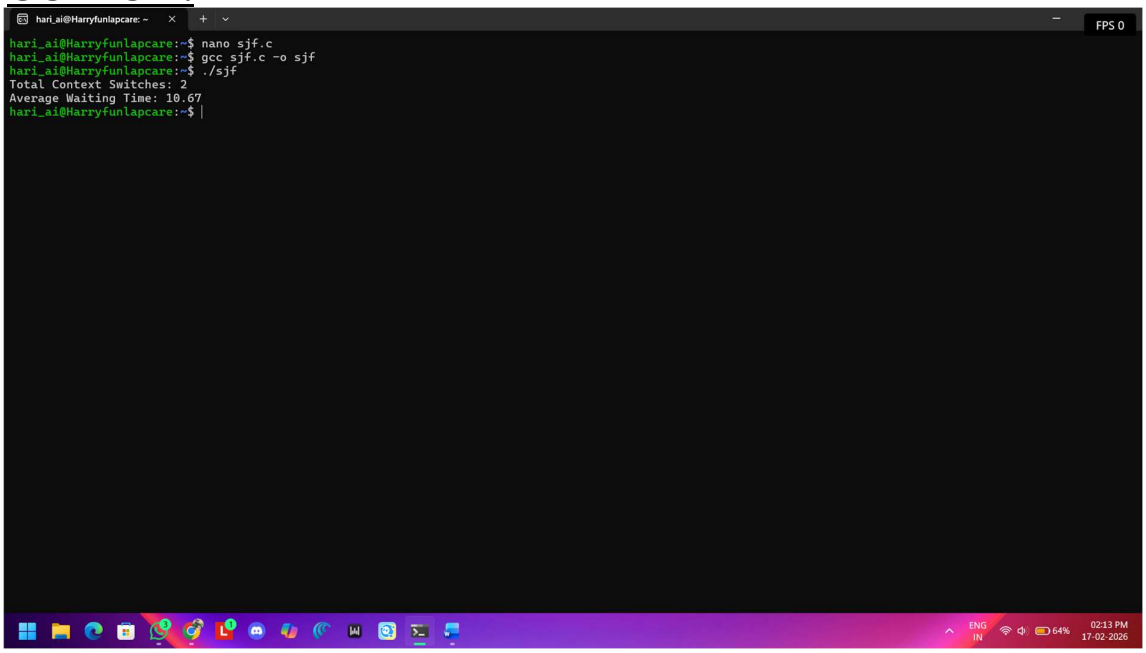
In an operating system three CPU-intensive processes are ready for execution, which require 10 ns, 20 ns and 30 ns and arrive at times 0 ns, 2 ns and 6 ns, respectively. Write a program to calculate the total number of context switches needed if the operating system implements a shortest job first (preemptive) scheduling algorithm. Also calculate the average time for which the processes have to wait before getting the CPU.

CODE:





OUTPUT :


hari_ai@Harryfunlapcare: ~
FPS 0
hari_ai@Harryfunlapcare:~$ nano sjf.c
hari_ai@Harryfunlapcare:~$ gcc sjf.c -o sjf
hari_ai@Harryfunlapcare:~$ ./sjf
Total Context Switches: 2
Average Waiting Time: 10.67
hari_ai@Harryfunlapcare:~$
ENG
IN
64%
02:13 PM
17-02-2026