**A purple circle with an elephant and text

Description automatically generated**

**RAMANUJAN COLLEGE, DELHI UNIVERSITY**

**PRACTICALS**

**OPERATING SYSTEM**

**Submitted By: Sahil Submitted To: Mrs.Sheetal Singh**

**Rollno:20221474**

**Semester – III**

**Course-BSc (Hons)**

**(Computer Science)**

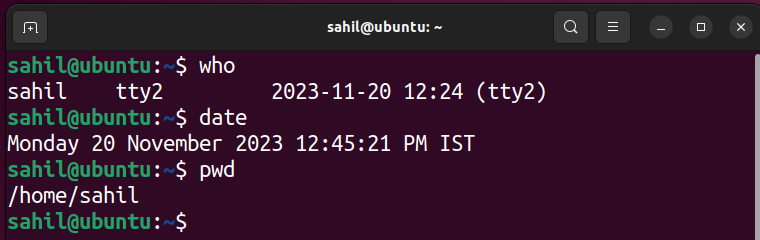
1. Execute various LINUX commands for:

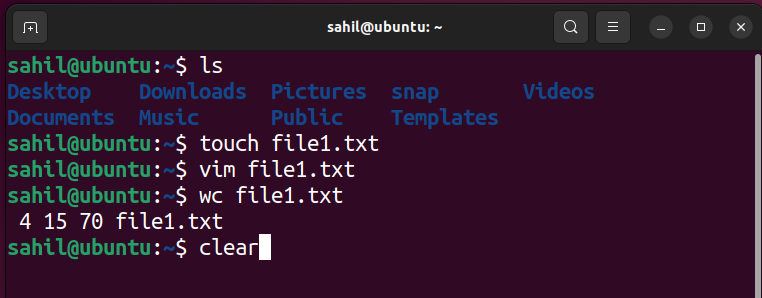
i. Information Maintenance: wc, clear, cal, who, date, pwd

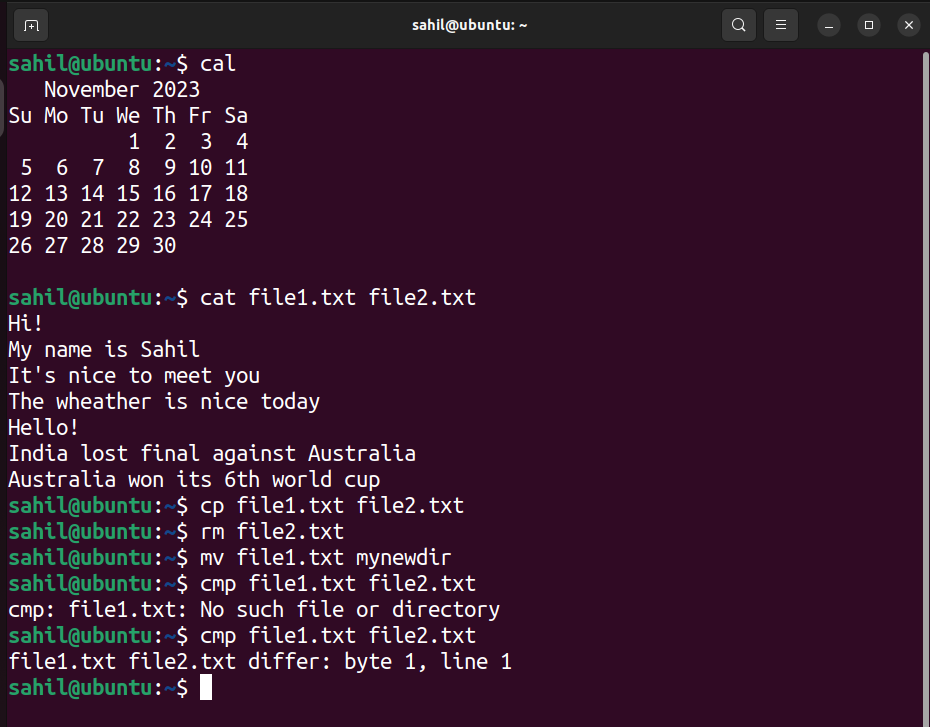
ii. File Management: cat, cp, rm, mv, cmp, comm, diff, find, grep, awk

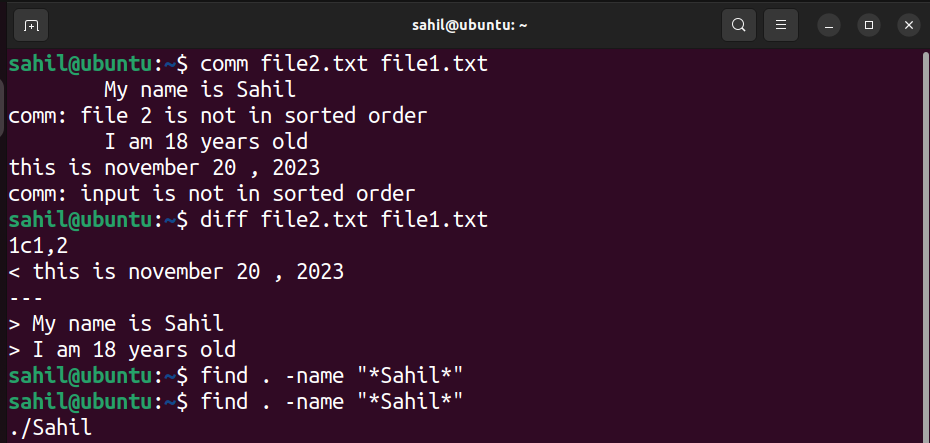
iii. Directory Management: cd, mkdir, rmdir, ls

OUTPUT:









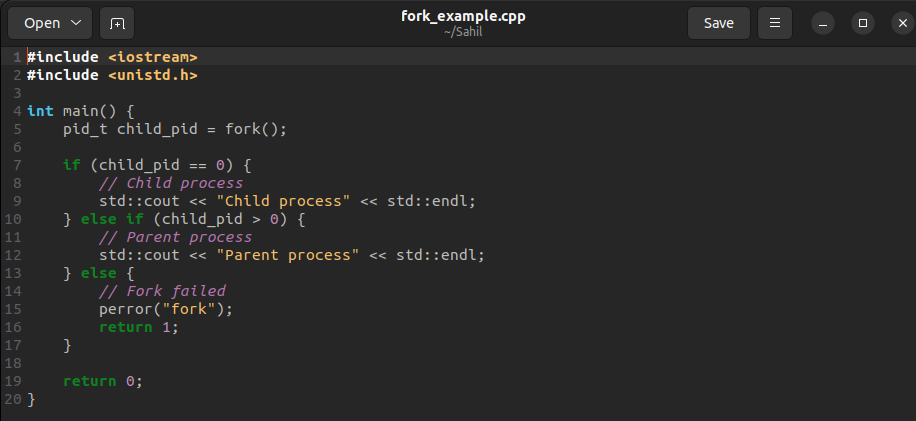


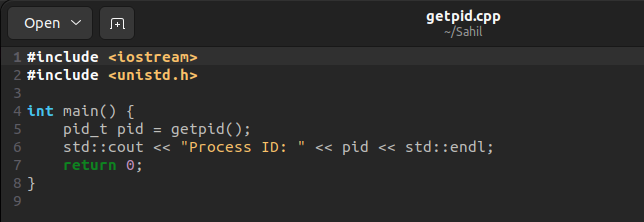
2. Execute various LINUX commands for:

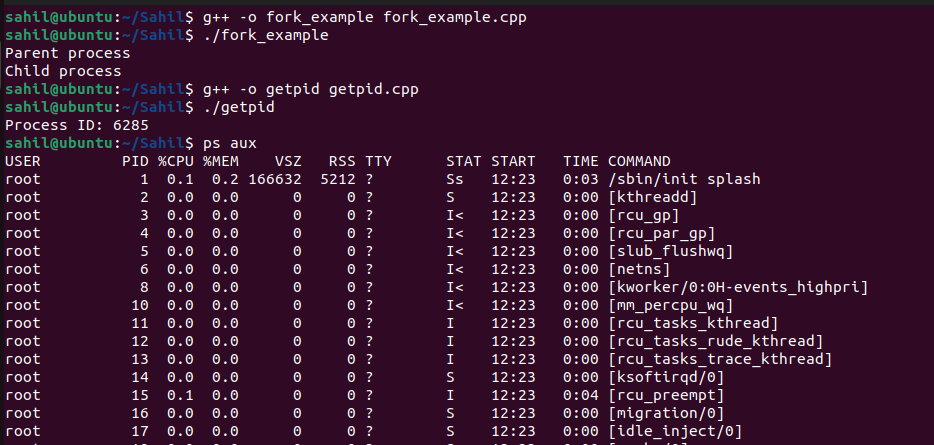
i. Process Control: fork, getpid, ps, kill, sleep

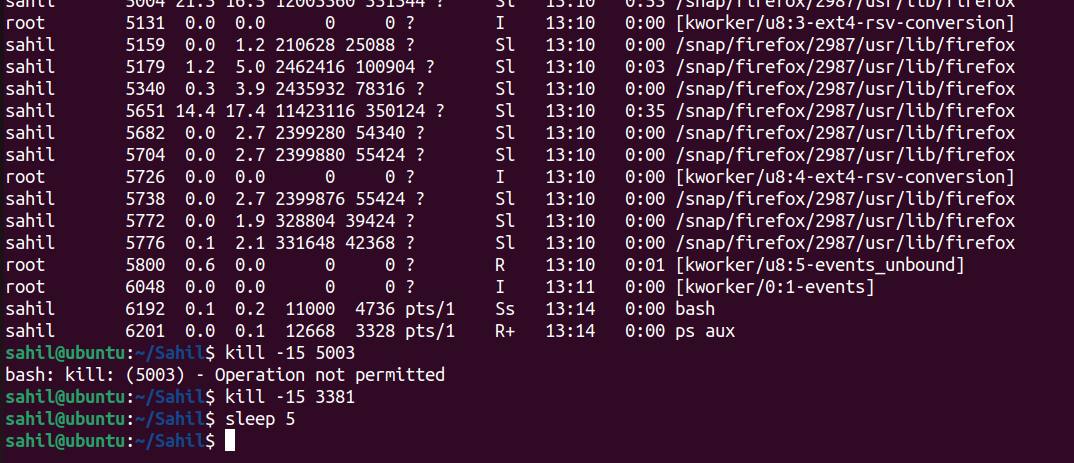
ii. Communication: Input-output redirection, Pipe

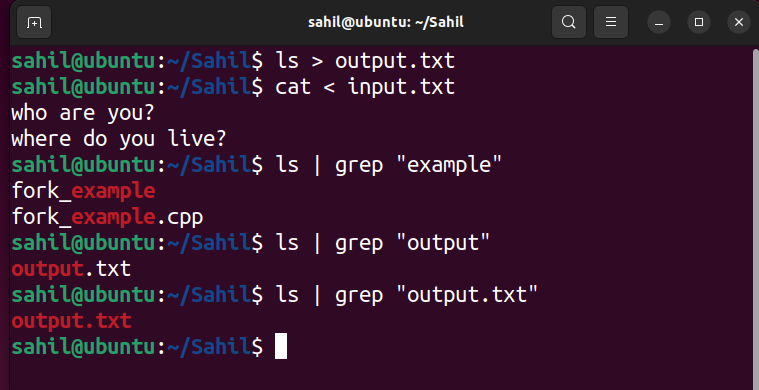
iii. Protection Management: chmod, chown, chgrp

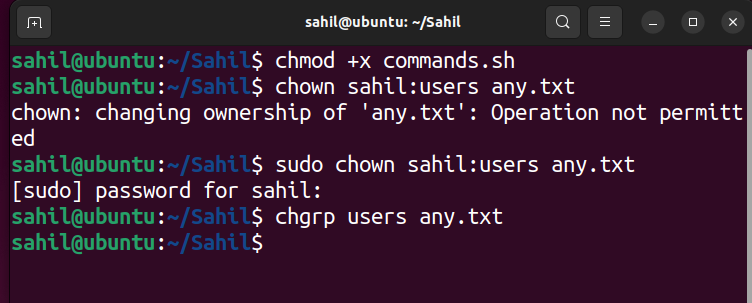












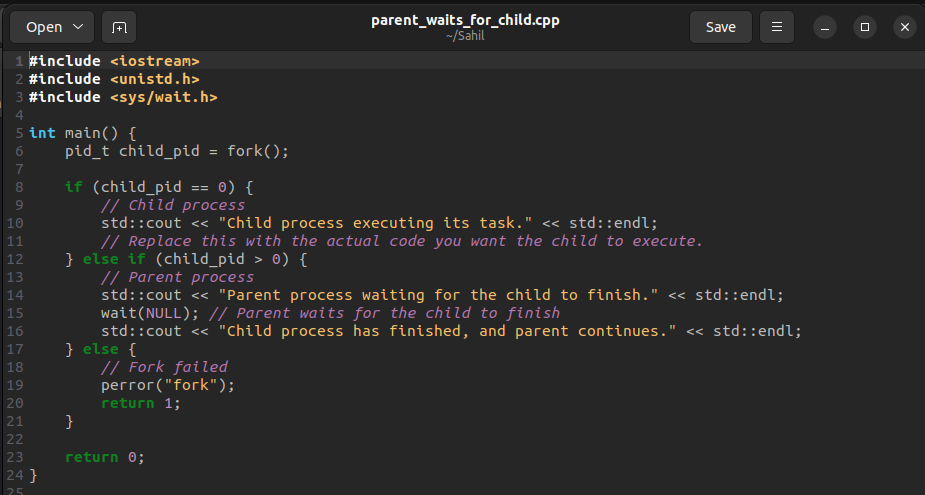
3. Write a program (using fork () and/or exec () commands) where parent and child execute:

i. same program, same code.

ii. same program, different code.

iii. before terminating, the parent waits for the child to finish its task.



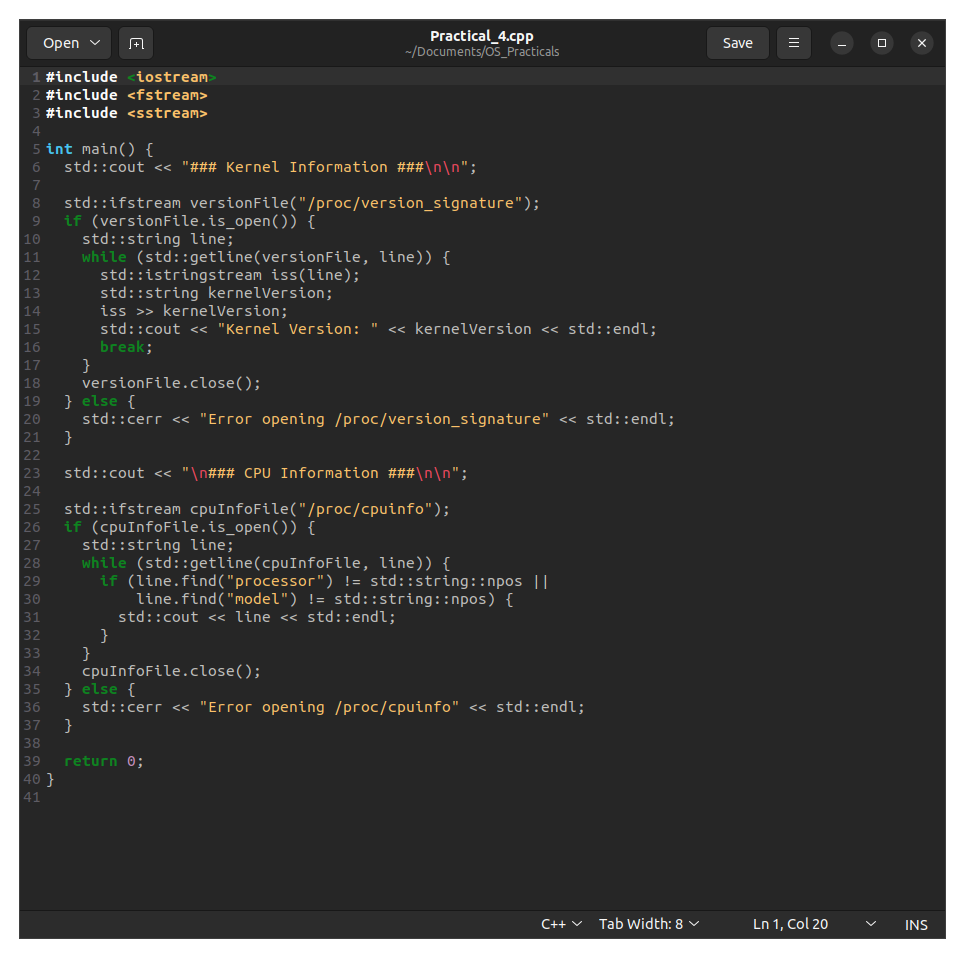




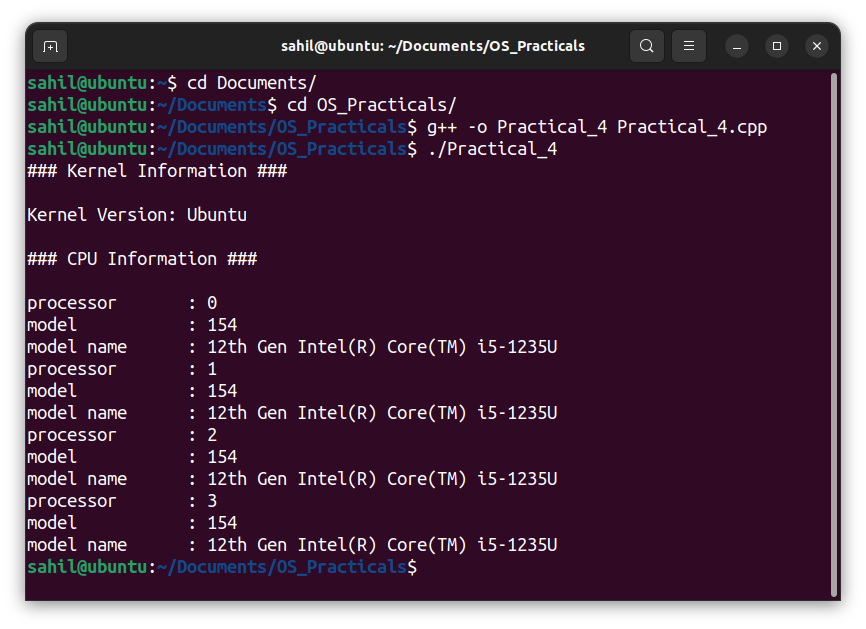
OUTPUT:



4. Write a program to report behaviour of Linux kernel including kernel version, CPU type and CPU information.

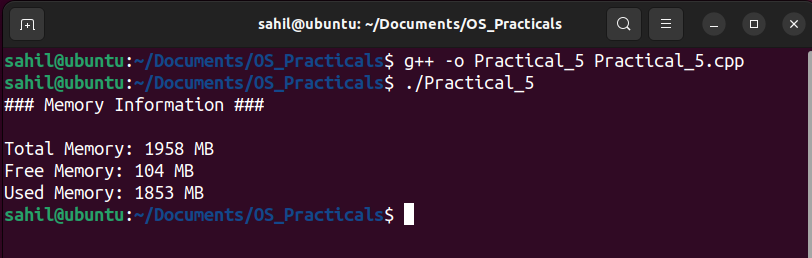


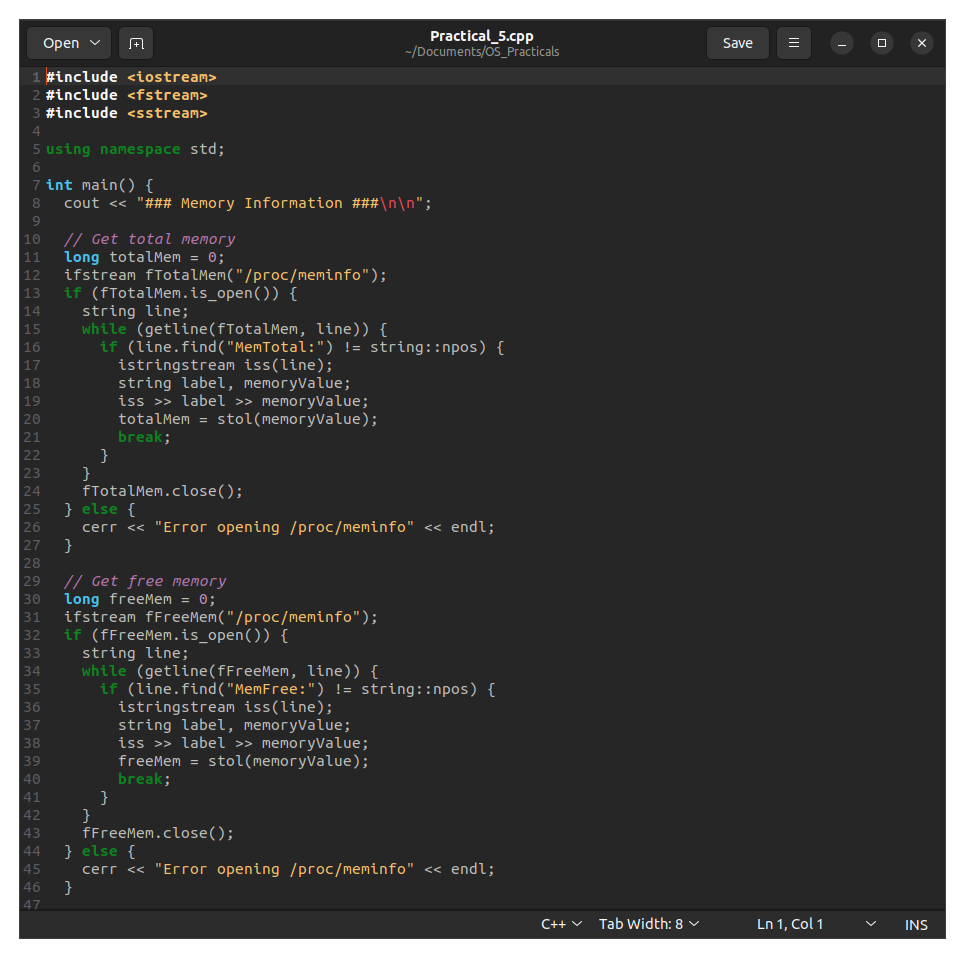
OUTPUT:



5. Write a program to report behavior of Linux kernel including information on configured memory, amount of free and used memory. (Memory information)

OUTPUT:

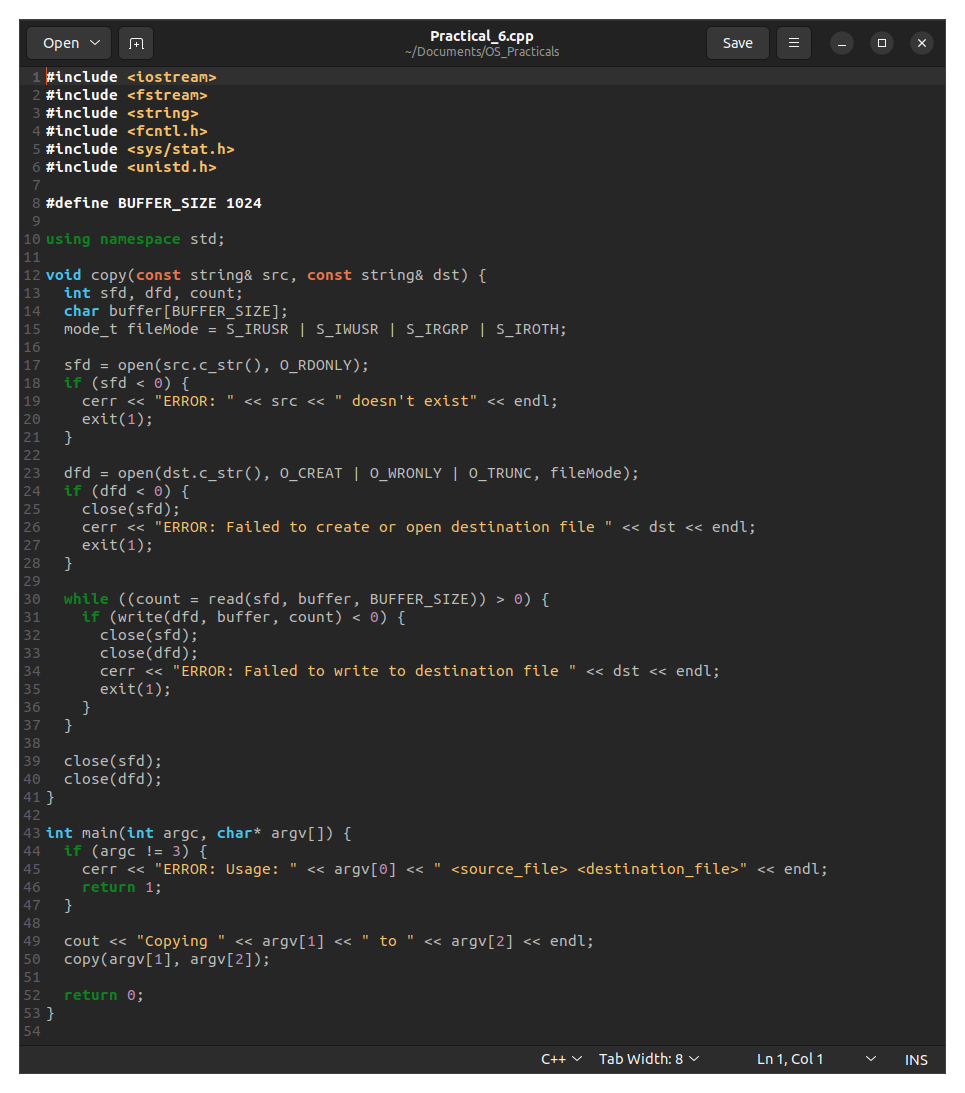




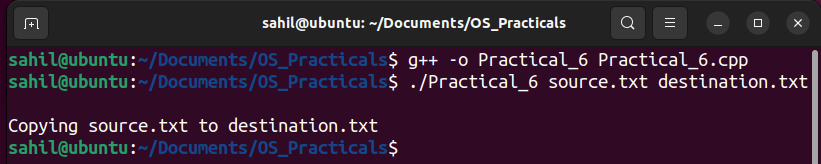
A black background with colorful text

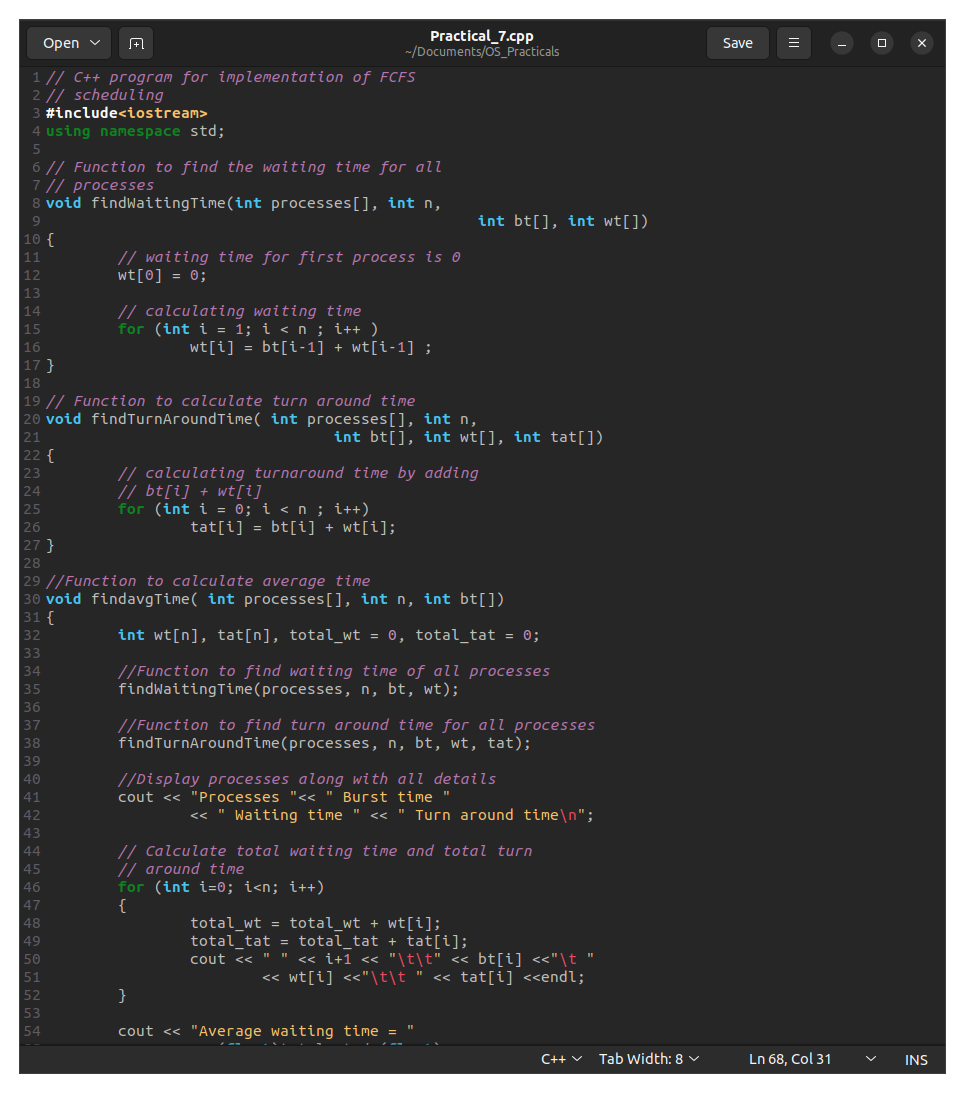
Description automatically generated

6. Write a program to copy files using system calls.



OUTPUT:

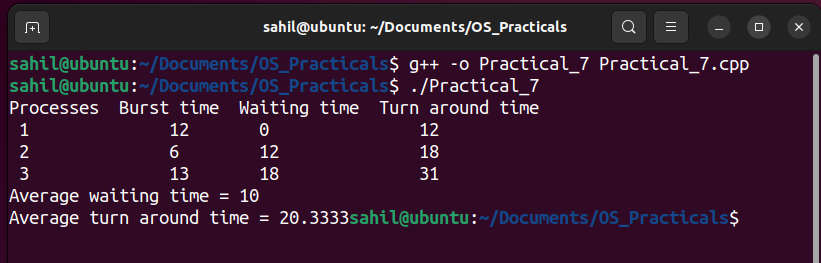
7. Write a program to im plement FCFS scheduling algorithm.



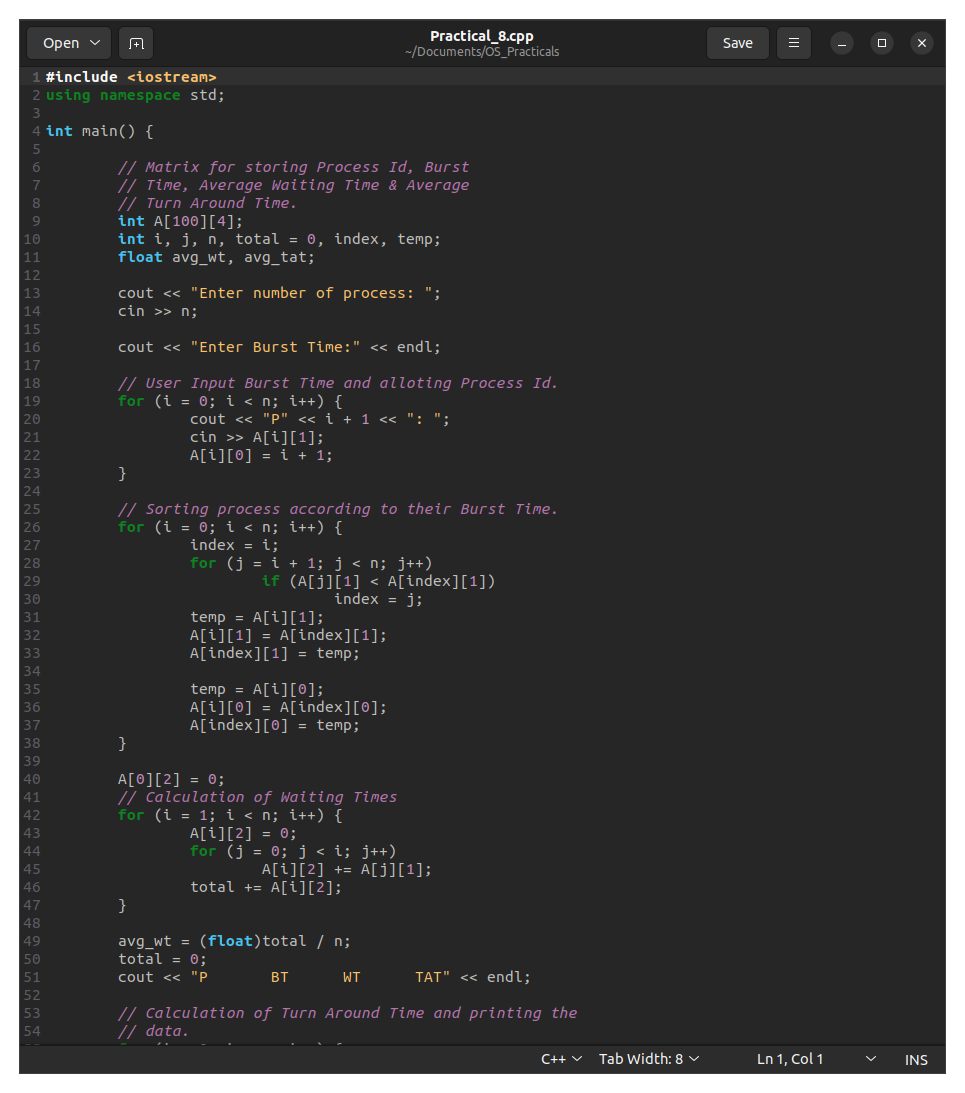
A computer screen shot of a program

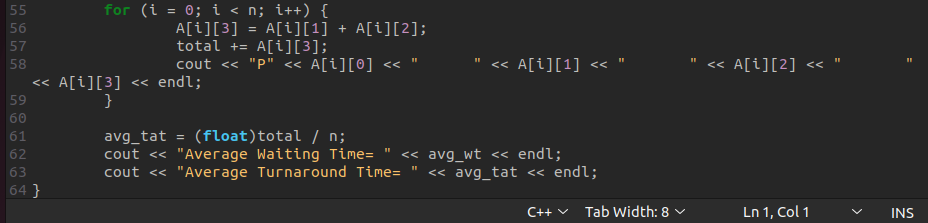
Description automatically generated

OUTPUT:

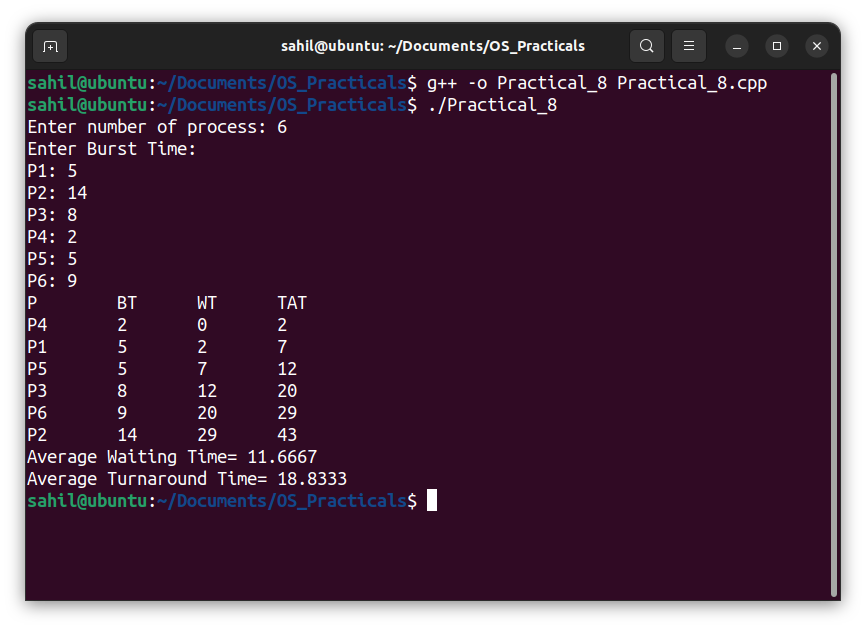


8. Write a program to implement SJF scheduling algorithm.

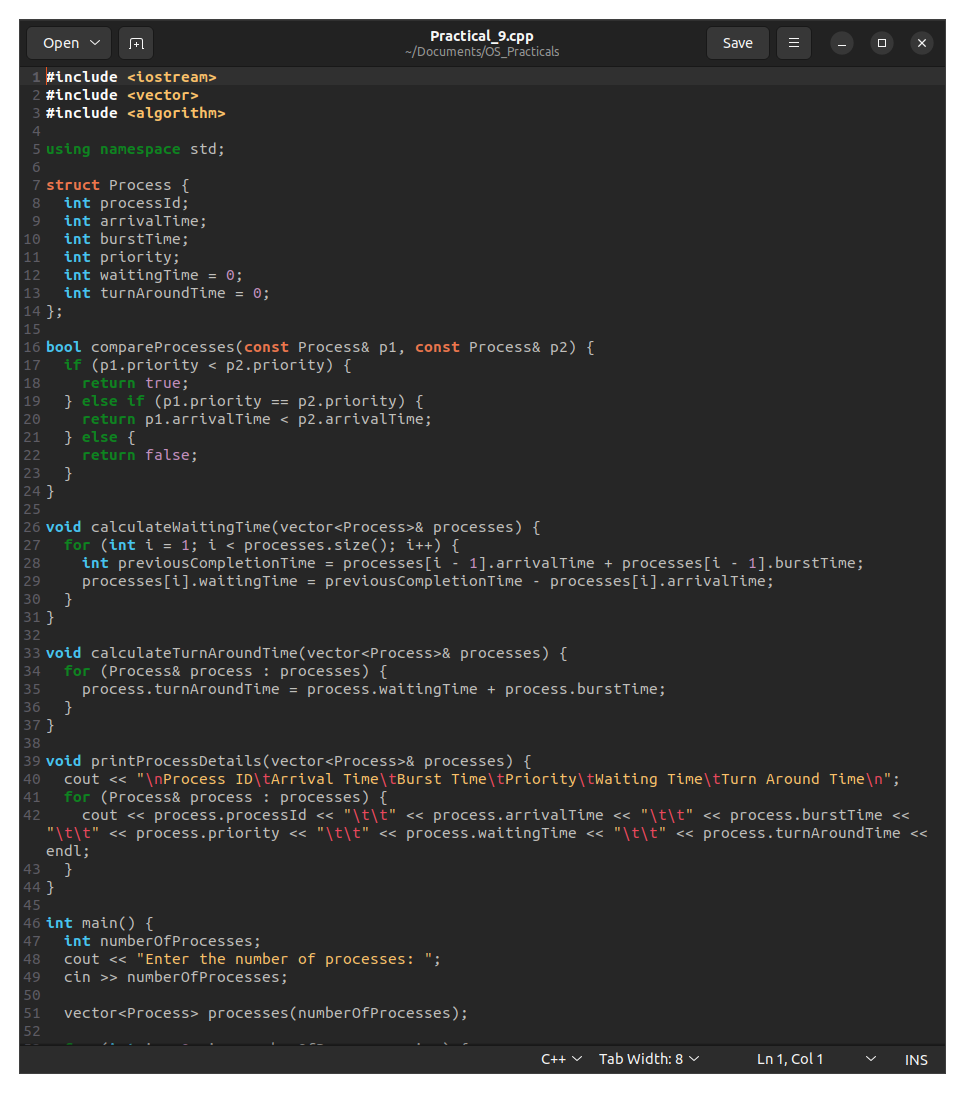


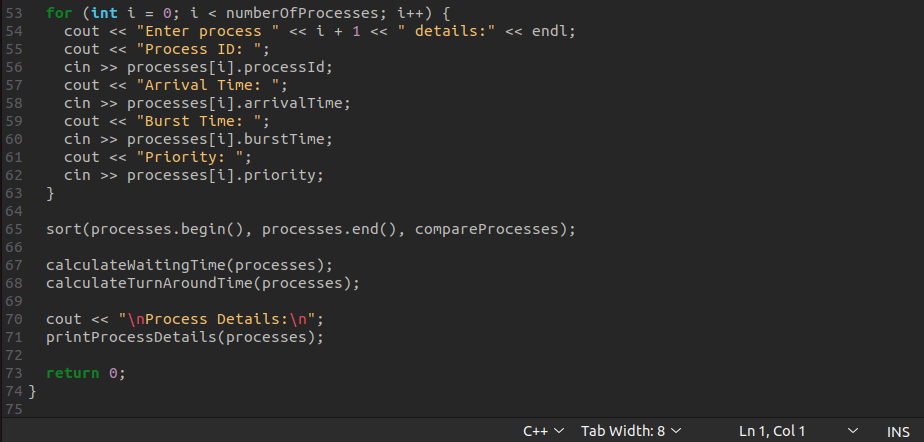


OUTPUT:

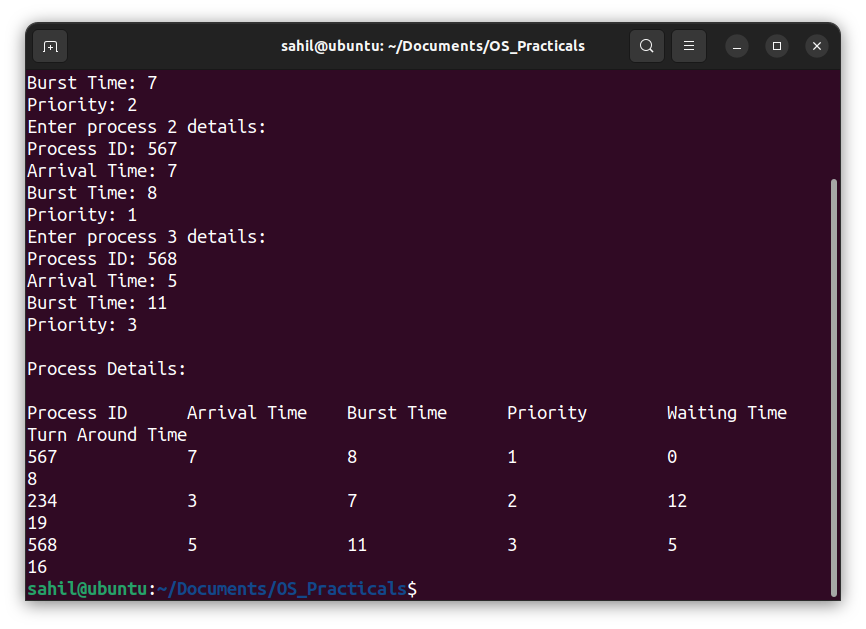


9. Write a program to implement non-preemptive priority-based scheduling algorithm.

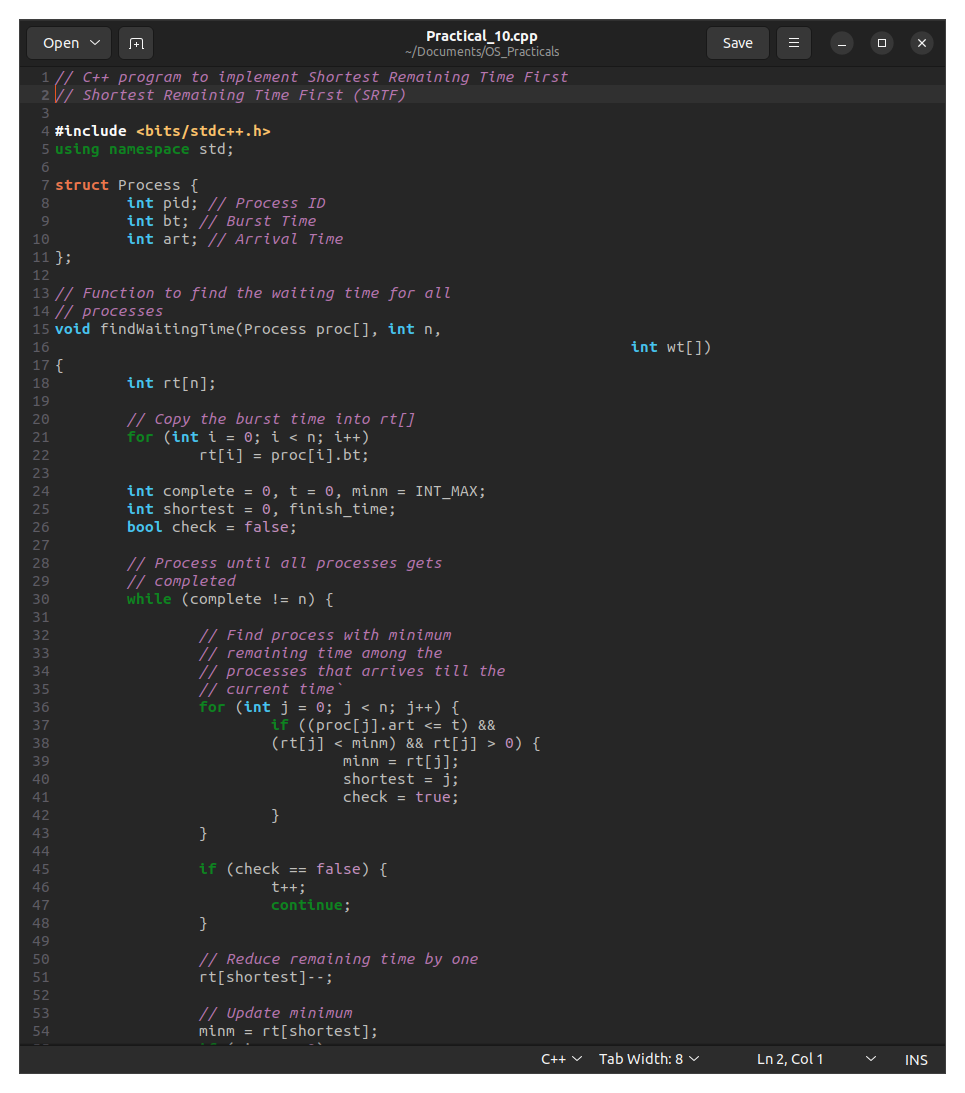


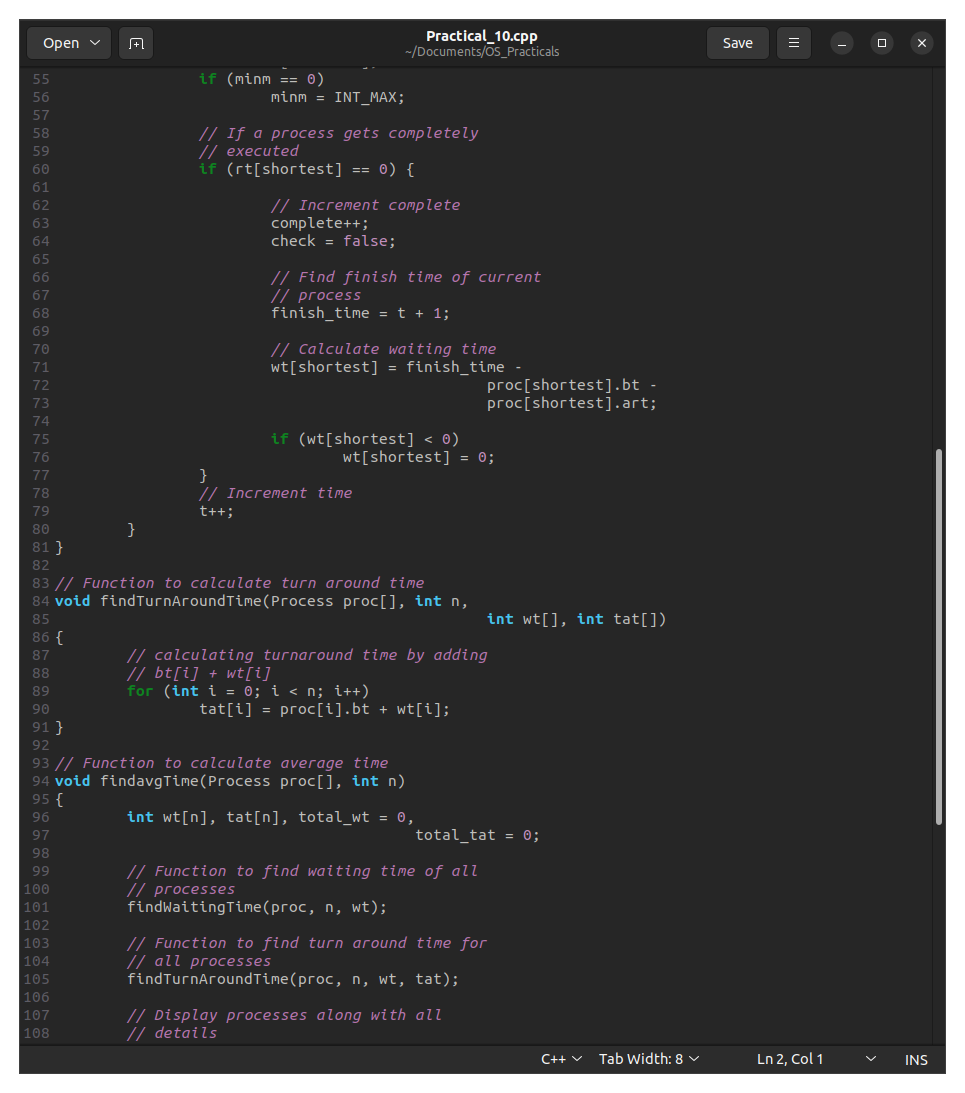


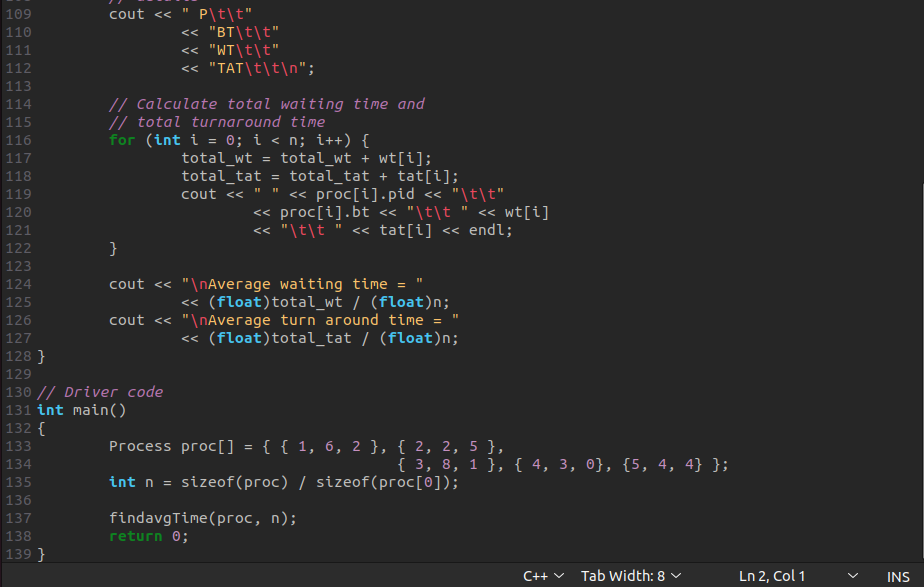
OUTPUT:



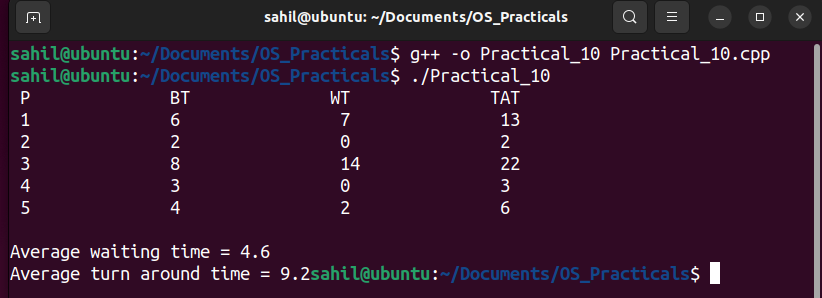
10. Write a program to implement SRTF scheduling algorithm.





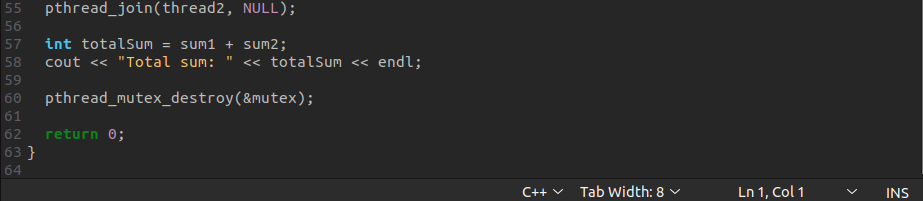


OUTPUT:

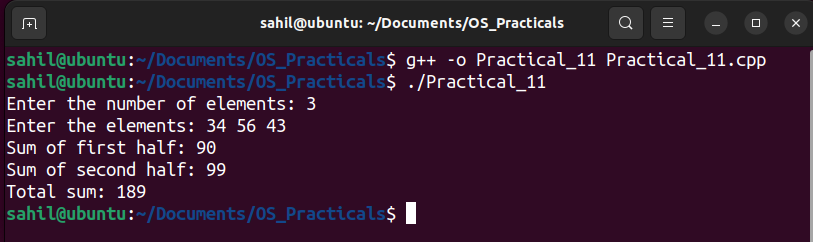


11. Write a program to calculate sum of n numbers using Pthreads. A list of n numbers is divided into two smaller lists of equal size, two separate threads are used to sum the sub lists.

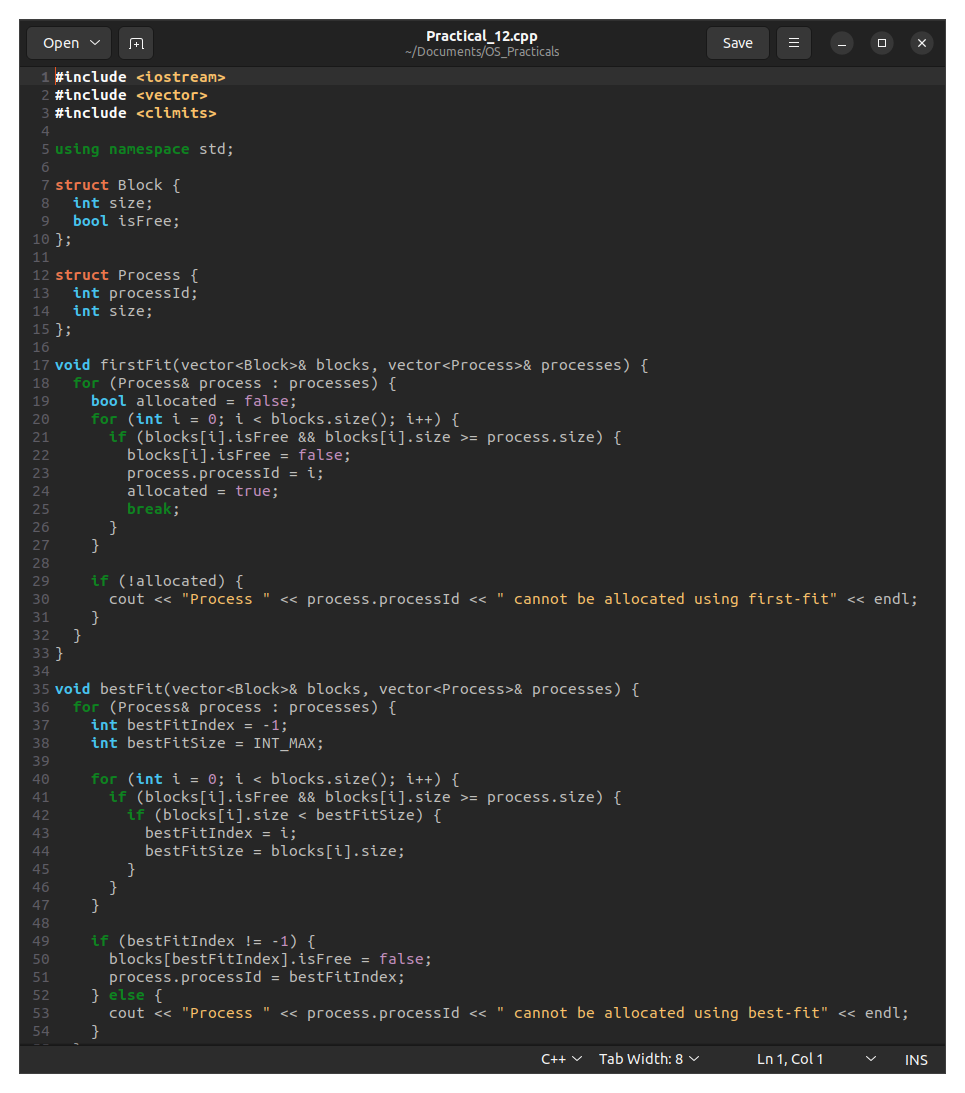




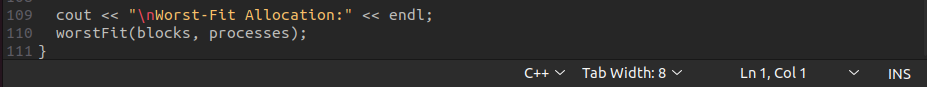
OUTPUT:



12. Write a program to implement first-fit, best-fit and worst-fit allocation strategies







OUTPUT:

