**A purple circle with an elephant and text

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**RAMANUJAN COLLEGE, DELHI UNIVERSITY**

**PRACTICALS**

**OPERATING SYSTEM**

**Submitted By: Submitted To:**

**Mayank Mrs. Sheetal Singh**

**Rollno:20221468**

**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

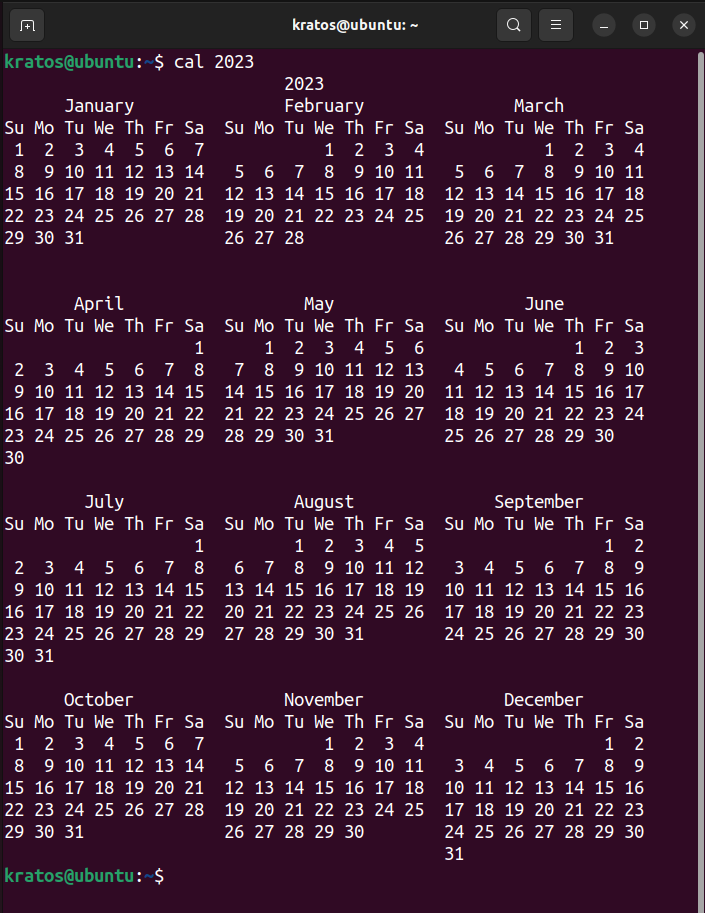
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2. Execute various LINUX commands for:

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

ii. Communication: Input-output redirection, Pipe

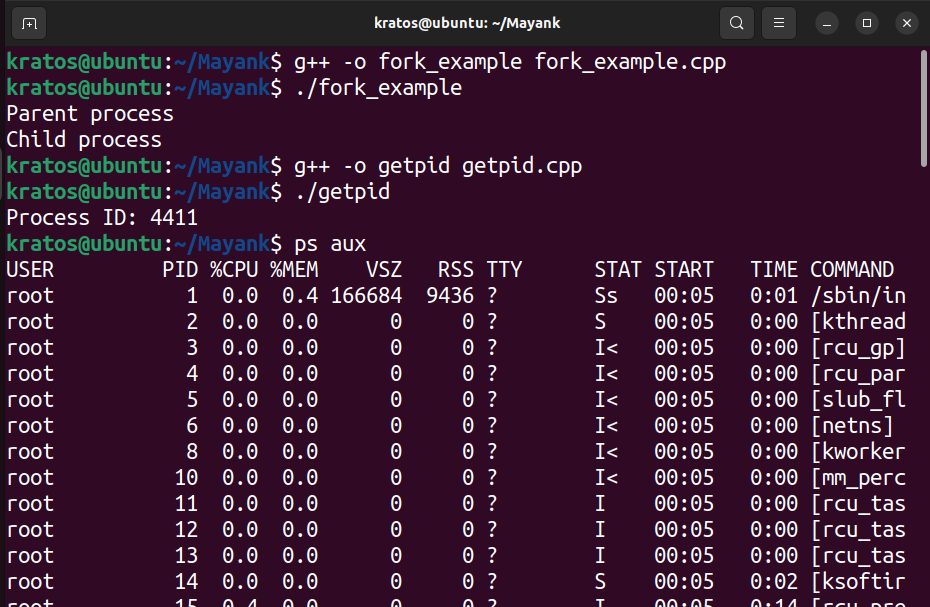
iii. Protection Management: chmod, chown, chgrp

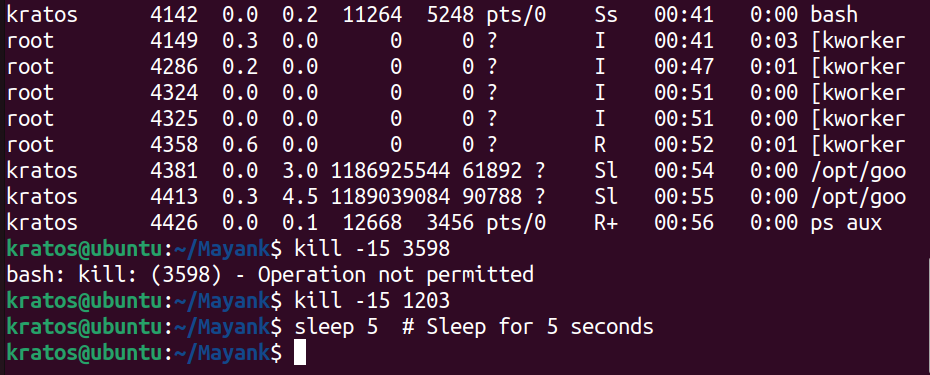
A screen shot of a computer program

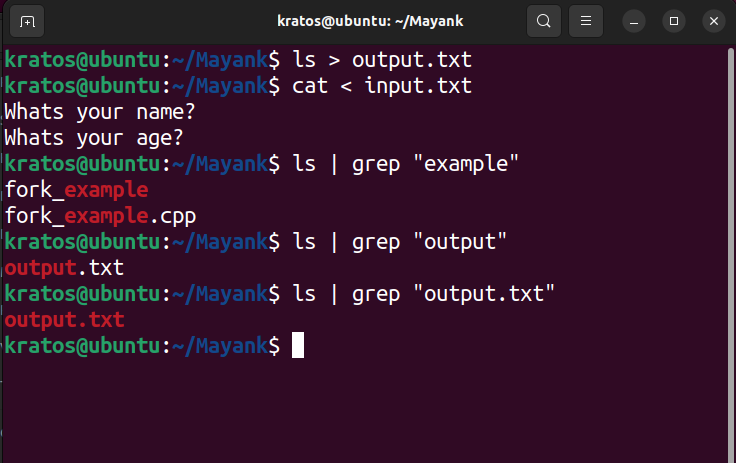
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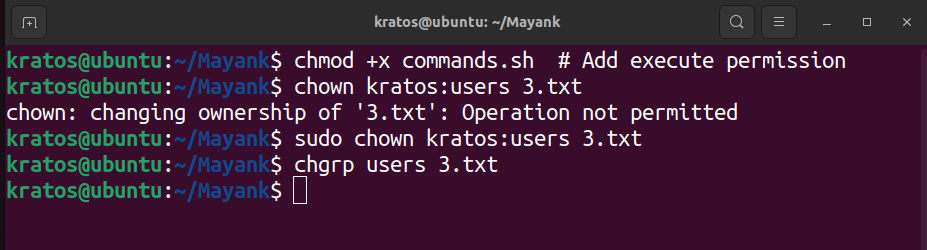


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3. Write a program (using fork () and/or exec () commands) where parent and child execute:

i. same program, same code.

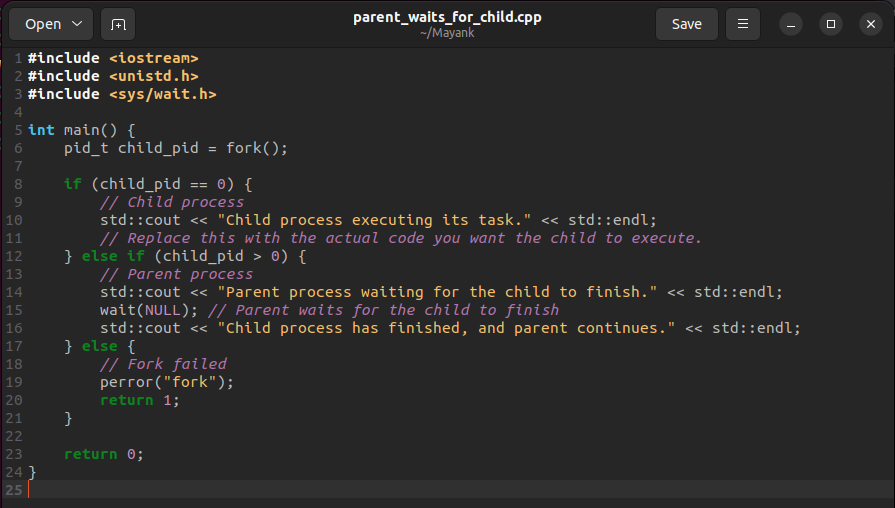
ii. same program, different code.

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

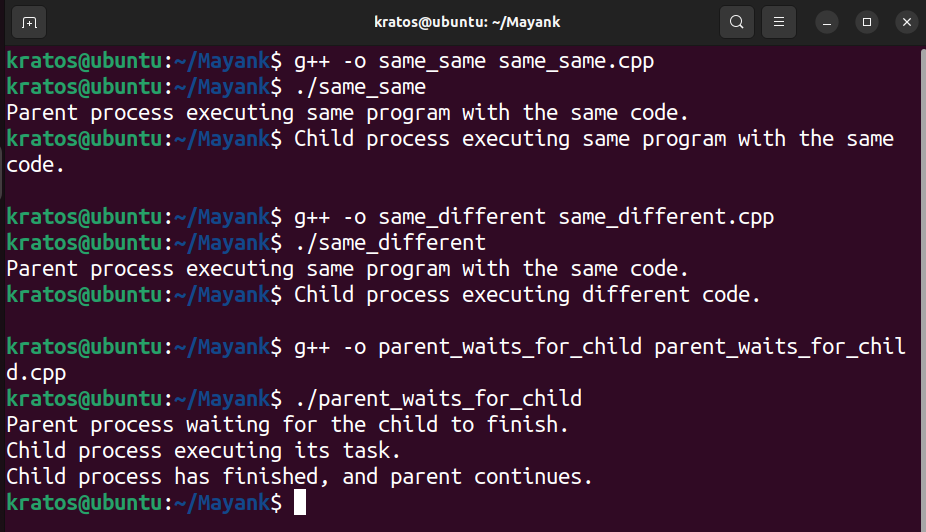
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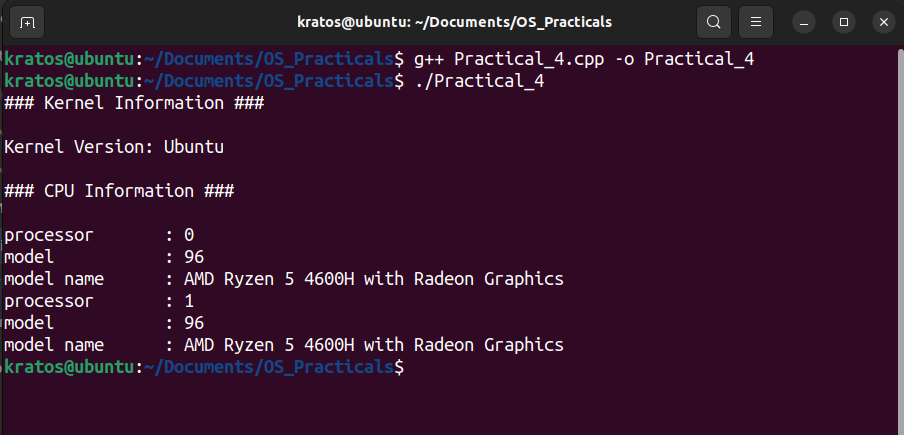


4. Write a program to report behaviour of Linux kernel including kernel version, CPU type and CPU information.

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

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

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7. Write a program to implement FCFS scheduling algorithm.

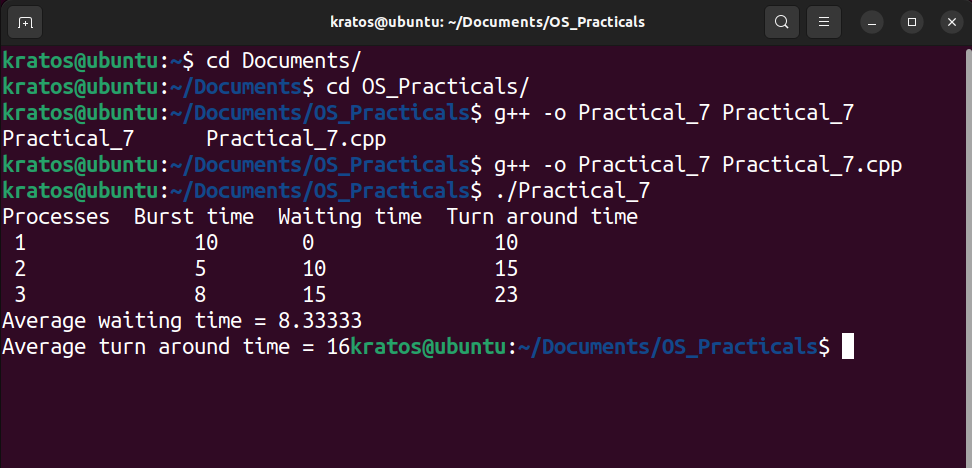
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8. Write a program to implement SJF scheduling algorithm.

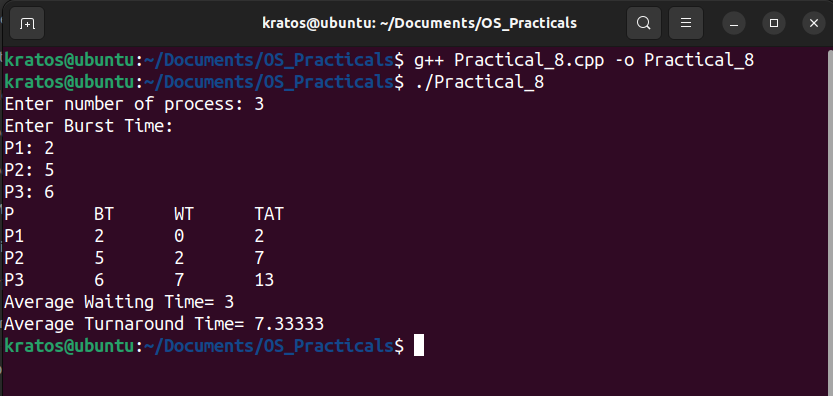
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A computer screen shot of a program code

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

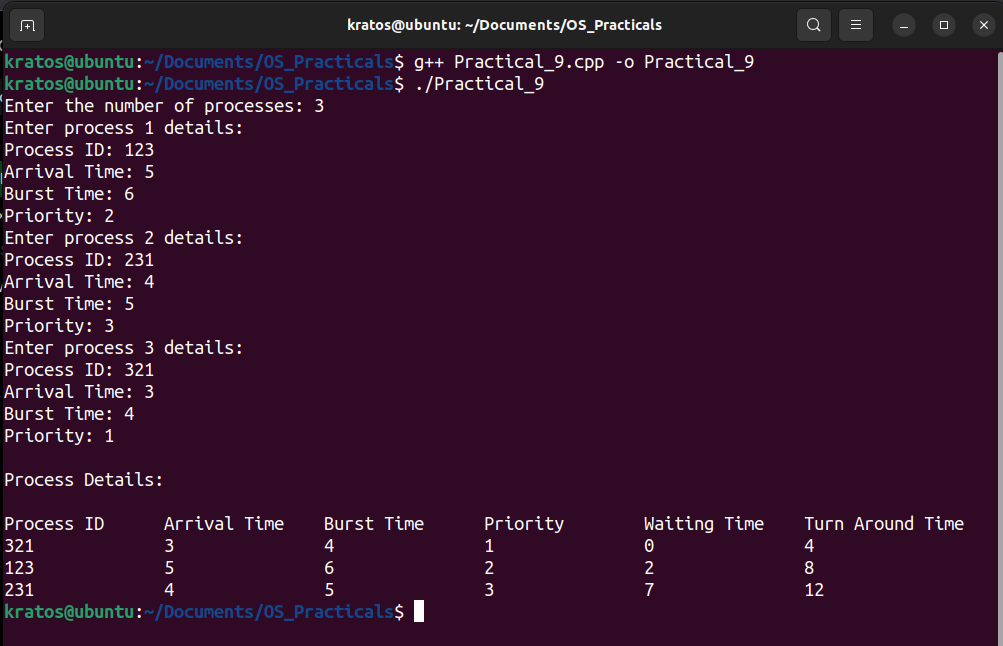
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10. Write a program to implement SRTF scheduling algorithm.

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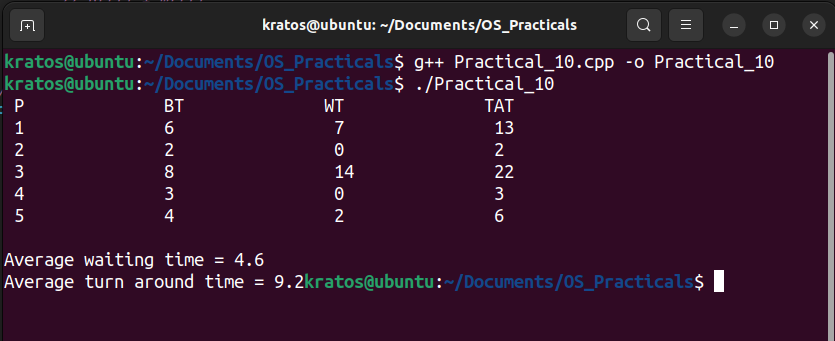
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11. Write a program to calculate sum of n numbers using Pthreads. A list of n numbers is divided into two smaller lists of equal size, two separate threads are used to sum the sub lists.

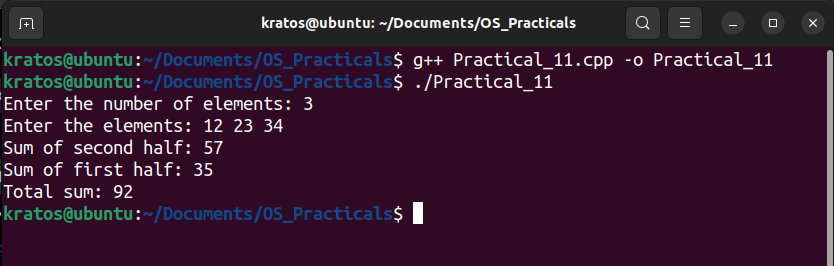
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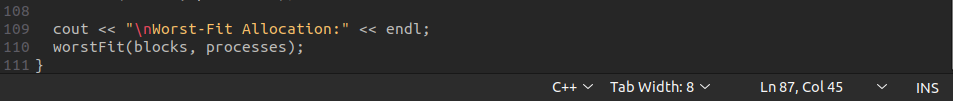
12. Write a program to implement first-fit, best-fit and worst-fit allocation strategies

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