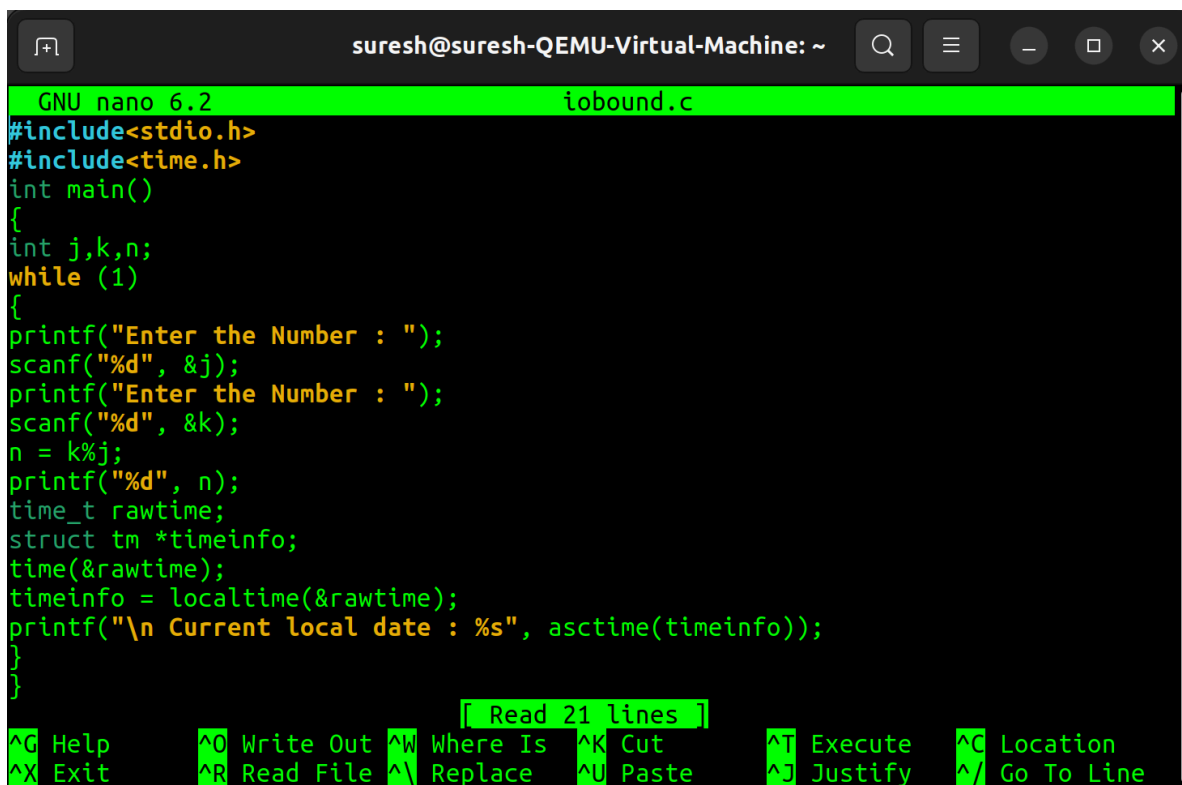


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Experiment : 8(b)

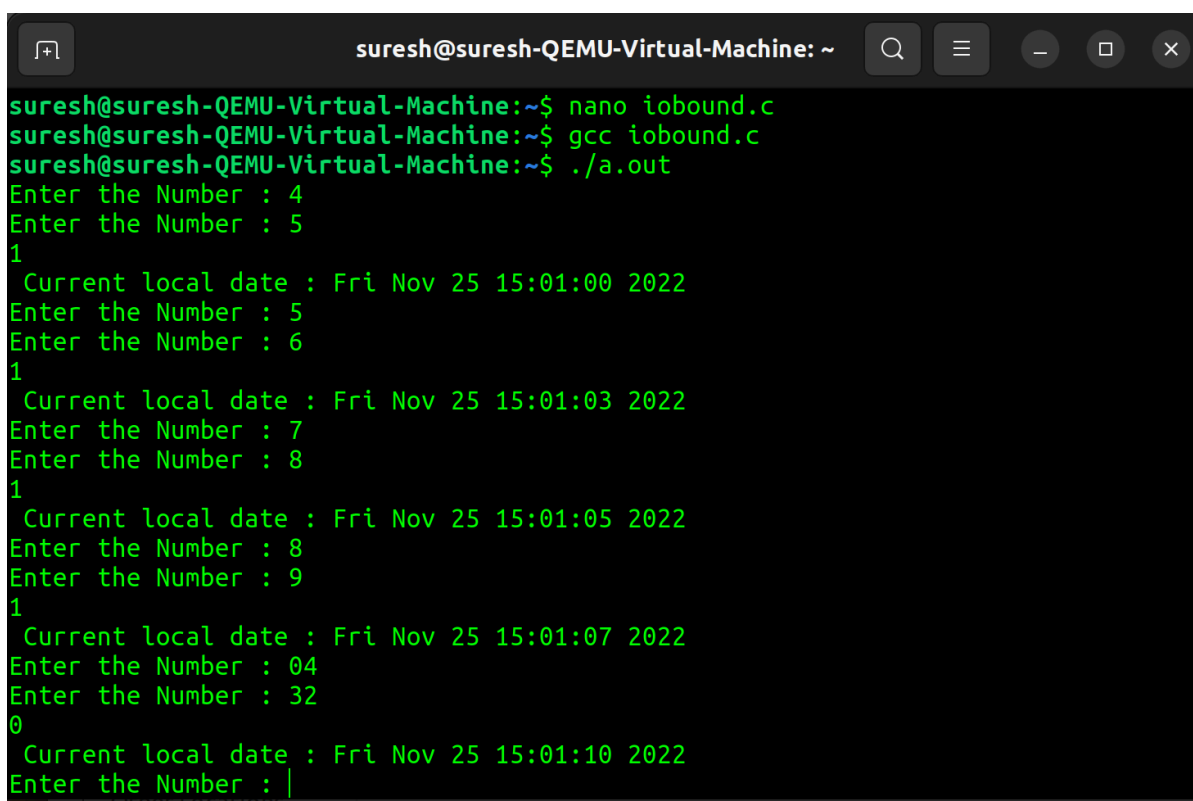
1.) Write a input output bound c program and observe the effect of their cpu share using the top command and its variants.

- C Program



```
GNU nano 6.2 iobound.c
#include<stdio.h>
#include<time.h>
int main()
{
    int j,k,n;
    while (1)
    {
        printf("Enter the Number : ");
        scanf("%d", &j);
        printf("Enter the Number : ");
        scanf("%d", &k);
        n = k*j;
        printf("%d", n);
        time_t rawtime;
        struct tm *timeinfo;
        time(&rawtime);
        timeinfo = localtime(&rawtime);
        printf("\n Current local date : %s", asctime(timeinfo));
    }
}
```

- Run the following C Program



```
suresh@suresh-QEMU-Virtual-Machine:~$ nano iobound.c
suresh@suresh-QEMU-Virtual-Machine:~$ gcc iobound.c
suresh@suresh-QEMU-Virtual-Machine:~$ ./a.out
Enter the Number : 4
Enter the Number : 5
1
Current local date : Fri Nov 25 15:01:00 2022
Enter the Number : 5
Enter the Number : 6
1
Current local date : Fri Nov 25 15:01:03 2022
Enter the Number : 7
Enter the Number : 8
1
Current local date : Fri Nov 25 15:01:05 2022
Enter the Number : 8
Enter the Number : 9
1
Current local date : Fri Nov 25 15:01:07 2022
Enter the Number : 04
Enter the Number : 32
0
Current local date : Fri Nov 25 15:01:10 2022
Enter the Number : |
```

- Using Top Command observing CPU Bound

```

suresh@suresh-QEMU-Virtual-Machine: ~
top - 15:02:13 up 53 min,  1 user,  load average: 0.09, 0.11, 0.22
Tasks: 209 total,   1 running, 208 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.2 us,  0.2 sy,  0.0 ni, 99.7 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
MiB Mem :  3908.4 total,  1618.6 free,   832.9 used,  1456.9 buff/cache
MiB Swap:  3220.0 total,  3218.7 free,    1.3 used.  2818.5 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM    TIME+  COMMAND
  417 systemd+  20   0   14984    6336   5516 S   0.3   0.2   0:04.50 systemd+
 1424 suresh    20   0  384352   99232  54384 S   0.3   2.5   0:57.53 Xorg
 1696 suresh    20   0 3823888 245388 106232 S   0.3   6.1  2:36.22 gnome-s+
    1 root      20   0   168076   11504    7476 S   0.0   0.3   0:01.26 systemd
    2 root      20   0         0         0         0 S   0.0   0.0   0:00.00 kthreadd
    3 root       0 -20         0         0         0 I   0.0   0.0   0:00.00 rcu_gp
    4 root       0 -20         0         0         0 I   0.0   0.0   0:00.00 rcu_par+
    5 root       0 -20         0         0         0 I   0.0   0.0   0:00.00 netns
    7 root       0 -20         0         0         0 I   0.0   0.0   0:00.00 kworker+
    9 root       0 -20         0         0         0 I   0.0   0.0   0:00.00 mm_perc+
   10 root      20   0         0         0         0 S   0.0   0.0   0:00.00 rcu_tas+
   11 root      20   0         0         0         0 S   0.0   0.0   0:00.00 rcu_tas+
   12 root      20   0         0         0         0 S   0.0   0.0   0:00.12 ksoftir+
   13 root      20   0         0         0         0 I   0.0   0.0   0:04.91 rcu_sch+
   14 root      rt    0         0         0         0 S   0.0   0.0   0:00.03 migrati+
   15 root     -51   0         0         0         0 S   0.0   0.0   0:00.00 idle_in+
   17 root      20   0         0         0         0 S   0.0   0.0   0:00.00 cpuhp/0

```