Paleti Krishnasai

CED18I039

Lab Exercise 2 - Write a C program to print your machine's "System Configuration". You have all liberty to decide which to add/delete in output.

Code:

```c
#include<stdio.h>
#include <stdlib.h>
#include<sys/utsname.h>   /* Header for 'uname'  */

int main()
{
struct utsname uname_pointer;
 // utsname maintains a structure that has the details of the system like
sysname nodename, release, version, etc.

uname(&uname_pointer);

printf("System name - %s \n", uname_pointer.sysname);
printf("Nodename    - %s \n", uname_pointer.nodename);
printf("Release     - %s \n", uname_pointer.release);
printf("Version     - %s \n", uname_pointer.version);
printf("Machine     - %s \n", uname_pointer.machine);
printf("Domain name - %s \n", uname_pointer.__domainname);
int r=system("cat /proc/1/status"); //  details of the process.
return 0;
}
```

Output Screenshots:

```
paleti@paleti-Lenovo-ideapad-330-15ICH:~/Documents/SEM_8/DD/Labs/code_files$ gcc lab2.c -o lab2
paleti@paleti-Lenovo-ideapad-330-15ICH:~/Documents/SEM_8/DD/Labs/code_files$ ./lab2
System name - Linux
Nodename    - paleti-Lenovo-ideapad-330-15ICH
Release     - 5.11.0-46-generic
Version     - #51~20.04.1-Ubuntu SMP Fri Jan 7 06:51:40 UTC 2022
Machine     - x86_64
Domain name - (none)
Name:   systemd
Umask:  0000
State:  S (sleeping)
Tgid:   1
Ngid:   0
Pid:    1
PPid:   0
TracerPid:      0
Uid:    0       0       0       0
Gid:    0       0       0       0
FDSize: 256
Groups:
NStgid: 1
NSpid:  1
NSpgid: 1
NSsid:  1
VmPeak:    233368 kB
VmSize:    167892 kB
VmLck:          0 kB
VmPin:          0 kB
VmHWM:      11772 kB
VmRSS:      11772 kB
RssAnon:            3400 kB
RssFile:            8372 kB
RssShmem:              0 kB
VmData:     19712 kB
VmStk:        132 kB
VmExe:        760 kB
VmLib:       8988 kB
VmPTE:         92 kB
VmSwap:         0 kB
HugetlbPages:          0 kB
CoreDumping:    0
THP_enabled:    1
```

```
THP_enabled:    1
Threads:        1
SigQ:   0/31052
SigPnd: 0000000000000000
ShdPnd: 0000000000000000
SigBlk: 7be3c0fe28014a03
SigIgn: 0000000000001000
SigCgt: 0000000180004ec
CapInh: 0000000000000000
CapPrm: 000001ffffffffff
CapEff: 000001ffffffffff
CapBnd: 000001ffffffffff
CapAmb: 0000000000000000
NoNewPrivs:     0
Seccomp:        0
Seccomp_filters:        0
Speculation_Store_Bypass:       thread vulnerable
SpeculationIndirectBranch:      conditional enabled
Cpus_allowed:   ff
Cpus_allowed_list:      0-7
Mems_allowed:   00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000
,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000000,00000001
Mems_allowed_list:      0
voluntary_ctxt_switches:        5719
nonvoluntary_ctxt_switches:     468
paleti@paleti-Lenovo-ideapad-330-15ICH:~/Documents/SEM_8/DD/Labs/code_files$
```