

# Assignment 1 (Day 1)

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```
lsb_release -a
```

```
ashu@ashu:~$ lsb_release -a
No LSB modules are available.
Distributor ID: Ubuntu
Description:    Ubuntu 20.04.3 LTS
Release:        20.04
Codename:       focal
ashu@ashu:~$
```

```
uname -ra
```

```
ashu@ashu:~$ uname -ra
Linux ashu 5.11.0-40-generic #44-20.04.2-Ubuntu SMP Tue Oct 26 18:07:44 UTC 2021 x86_64 x86_64 x86_64 GNU/Linux
ashu@ashu:~$
```

```
cat /proc/meminfo
```

```

ashu@ashu:~$ cat /proc/meminfo
MemTotal:        6020036 kB
MemFree:         2164760 kB
MemAvailable:    3795696 kB
Buffers:         70020 kB
Cached:          1802180 kB
SwapCached:      0 kB
Active:          450272 kB
Inactive:        2964996 kB
Active(anon):    10608 kB
Inactive(anon):  1597432 kB
Active(file):    439664 kB
Inactive(file):  1367564 kB
Unevictable:     16 kB
Mlocked:         16 kB
SwapTotal:       2097148 kB
SwapFree:        2097148 kB
Dirty:           4 kB
Writeback:       4 kB
AnonPages:       1543148 kB
Mapped:          804972 kB
Shmem:           69100 kB
KReclaimable:    75952 kB
Slab:            172300 kB
SReclaimable:    75952 kB
SUnreclaim:     96348 kB
KernelStack:    14528 kB
PageTables:      33080 kB
NFS_Unstable:    0 kB
Bounce:          0 kB
WritebackTmp:    0 kB
CommitLimit:     5107164 kB
Committed_AS:    7345548 kB
VmallocTotal:    34359738367 kB
VmallocUsed:      85860 kB
VmallocChunk:    0 kB
Percpu:          14016 kB
HardwareCorrupted: 0 kB
AnonHugePages:   0 kB
ShmemHugePages:  0 kB
ShmemPmdMapped:  0 kB
FileHugePages:   0 kB
FilePmdMapped:   0 kB
HugePages_Total: 0
HugePages_Free:  0
HugePages_Rsvd:  0
HugePages_Surp:  0
Hugepagesize:    2048 kB
Hugetlb:         0 kB
DirectMap4k:     335060 kB
DirectMap2M:     3801088 kB
DirectMap1G:     3145728 kB

```

```
cat /proc/cpuinfo
```

```
processor      : 1
vendor_id     : AuthenticAMD
cpu family    : 23
model         : 24
model name    : AMD Ryzen 3 3250U with Radeon Graphics
stepping      : 1
microcode     : 0x8108109
cpu MHz       : 1400.000
cache size    : 512 KB
physical id    : 0
siblings      : 4
core id       : 0
cpu cores     : 2
apicid        : 1
initial apicid : 1
fpu           : yes
fpu_exception : yes
cpuid level   : 13
wp            : yes
flags          : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx fxsr sse sse2 ht syscall nx mmxext fxsr_opt pdpe1gb rdtscp lm constant tsc rep_good nopl nonstop_tsc
kinit wdt tce topoext perfctr_core perfctr_nb bpext perfctr_llc mwaitx cpb hw_pstate sme ssbd sev l1bpb vmcall sev_es fsgsbase bmi1 avx2 smep bmt2 rdseed adx snap clflushopt sha_ni xsaveopt xsavec xgetbv1
bugs          : sysret_ss_attrs null_seg spectre_v1 spectre_v2 spec_store_bypass
bogomips      : 5190.28
tlb size      : 2560 4K pages
clflush size   : 64
cache alignment : 64
address sizes  : 43 bits physical, 48 bits virtual
power management: ts ttp tm hwpstate eff_freq_ro [13] [14]
```

```
cat /proc/iomem
```

```

ashu@ashu:~$ cat /proc/iomem
00000000-00000000 : Reserved
00000000-00000000 : System RAM
00000000-00000000 : Reserved
00000000-00000000 : System RAM
00000000-00000000 : PCI Bus 0000:00
    00000000-00000000 : Reserved
00000000-00000000 : PCI Bus 0000:00
00000000-00000000 : PCI Bus 0000:00
00000000-00000000 : PCI Bus 0000:00
00000000-00000000 : PCI Bus 0000:00
00000000-00000000 : PCI Bus 0000:00
00000000-00000000 : PCI Bus 0000:00
00000000-00000000 : PCI Bus 0000:00
00000000-00000000 : PCI Bus 0000:00
00000000-00000000 : PCI Bus 0000:00
00000000-00000000 : PCI Bus 0000:00
00000000-00000000 : System ROM
00000000-00000000 : System RAM
00000000-00000000 : Reserved
00000000-00000000 : System RAM
00000000-00000000 : ACPI Non-volatile Storage
00000000-00000000 : System RAM
00000000-00000000 : System RAM
00000000-00000000 : System RAM
00000000-00000000 : Reserved
00000000-00000000 : System RAM
00000000-00000000 : Reserved
00000000-00000000 : System RAM
    00000000-00000000 : Kernel code
    00000000-00000000 : Kernel rodata
    00000000-00000000 : Kernel data
    00000000-00000000 : Kernel bss
00000000-00000000 : Reserved
    00000000-00000000 : MSFT0101:00
        00000000-00000000 : MSFT0101:00
    00000000-00000000 : MSFT0101:00
        00000000-00000000 : MSFT0101:00
00000000-00000000 : ACPI Non-volatile Storage
00000000-00000000 : ACPI Tables
00000000-00000000 : System RAM
00000000-00000000 : Reserved
00000000-00000000 : PCI Bus 0000:00
    00000000-00000000 : PCI Bus 0000:03
        00000000-00000000 : 0000:03:00.0
        00000000-00000000 : 0000:03:00.0

```

```
cat /proc/ioports
```

```
ashu@ashu:~$ cat /proc/ioports
0000-0000 : PCI Bus 0000:00
    0000-0000 : dma1
    0000-0000 : pic1
    0000-0000 : timer0
    0000-0000 : timer1
    0000-0000 : keyboard
    0000-0000 : PNP0800:00
    0000-0000 : PNP0C09:00
        0000-0000 : EC data
    0000-0000 : keyboard
    0000-0000 : PNP0C09:00
        0000-0000 : EC cmd
    0000-0000 : rtc_cmos
        0000-0000 : rtc0
    0000-0000 : dma page reg
    0000-0000 : pic2
    0000-0000 : dma2
    0000-0000 : fpu
        0000-0000 : PNP0C04:00
    0000-0000 : pnp 00:02
        0000-0000 : ACPI PM1a_EVT_BLK
        0000-0000 : ACPI PM1a_CNT_BLK
        0000-0000 : ACPI PM_TMR
        0000-0000 : ACPI CPU throttle
        0000-0000 : ACPI GPE0_BLK
    0000-0000 : pnp 00:02
    0000-0000 : pnp 00:02
    0000-0000 : ACPI PM2_CNT_BLK
    0000-0000 : piix4_smbus
    0000-0000 : piix4_smbus
    0000-0000 : pnp 00:02
    0000-0000 : pnp 00:02
    0000-0000 : pnp 00:02
    0000-0000 : pnp 00:02
    0000-0000 : pnp 00:02
    0000-0000 : pnp 00:02
0000-0000 : PCI conf1
0000-0000 : PCI Bus 0000:00
    0000-0000 : PCI Bus 0000:03
        0000-0000 : 0000:03:00.0
    0000-0000 : PCI Bus 0000:02
        0000-0000 : 0000:02:00.0
        0000-0000 : rtl8821ce
    0000-0000 : PCI Bus 0000:01
        0000-0000 : 0000:01:00.0
```