PRACTICAL-2

AIM: WRITE A PROGRAM TO REPORT BEHAVIOUR OF LINUX KERNEL INCLUDING KERNEL VERSION , CPU TYPE AND MODEL.(CPU INFORMATION)

SOL:

#include<stdlib.h>

#include<stdio.h>

int main(){

printf("\n The Kernel Version is : \n");
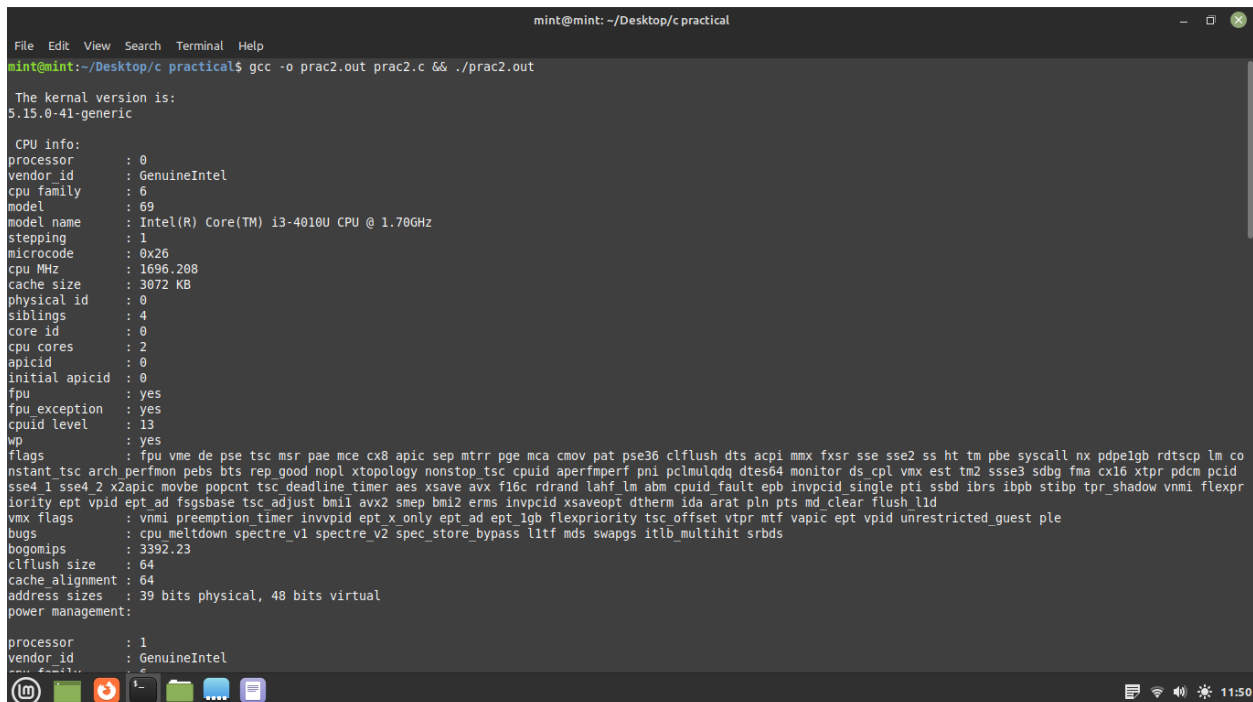
system("cat/proc/sys/kernel/osrelease");

printf("\n The CPU information is: \n");

system("cat/proc/cpuinfo \n");

return 0;

}

OUTPUT:

```
processor       : 1
vendor_id       : GenuineIntel
cpu family      : 6
model           : 69
model name      : Intel(R) Core(TM) i3-4010U CPU @ 1.70GHz
stepping        : 1
microcode       : 0x26
cpu MHz         : 1700.000
cache size      : 3072 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 dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm co
nstant_tsc arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf pni pclmulqdq dtes64 monitor ds_cpl vmx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid
sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm cpuid_fault epb invpcid_single pti ssbd ibrs ibpb stibp tpr_shadow vnmi flexpr
iority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms invpcid xsaveopt dtherm ida arat pln pts md_clear flush_l1d
vmx flags       : vnmi preemption_timer invvpid ept_x_only ept_ad ept_1gb flexpriority tsc_offset vtpr mtf vapic ept vpid unrestricted_guest ple
bugs            : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs itlb_multihit srbds
bogomips        : 3392.23
clflush size    : 64
cache_alignment : 64
address sizes   : 39 bits physical, 48 bits virtual
power management:

processor       : 2
vendor_id       : GenuineIntel
cpu family      : 6
model           : 69
model name      : Intel(R) Core(TM) i3-4010U CPU @ 1.70GHz
stepping        : 1
microcode       : 0x26
```

```
processor       : 2
vendor_id       : GenuineIntel
cpu family      : 6
model           : 69
model name      : Intel(R) Core(TM) i3-4010U CPU @ 1.70GHz
stepping        : 1
microcode       : 0x26
cpu MHz         : 1700.000
cache size      : 3072 KB
physical id     : 0
siblings        : 4
core id         : 1
cpu cores       : 2
apicid          : 2
initial apicid  : 2
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 dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm co
nstant_tsc arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf pni pclmulqdq dtes64 monitor ds_cpl vmx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid
sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm cpuid_fault epb invpcid_single pti ssbd ibrs ibpb stibp tpr_shadow vnmi flexpr
iority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms invpcid xsaveopt dtherm ida arat pln pts md_clear flush_l1d
vmx flags       : vnmi preemption_timer invvpid ept_x_only ept_ad ept_1gb flexpriority tsc_offset vtpr mtf vapic ept vpid unrestricted_guest ple
bugs            : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs itlb_multihit srbds
bogomips        : 3392.23
clflush size    : 64
cache_alignment : 64
address sizes   : 39 bits physical, 48 bits virtual
power management:

processor       : 3
vendor_id       : GenuineIntel
cpu family      : 6
model           : 69
model name      : Intel(R) Core(TM) i3-4010U CPU @ 1.70GHz
stepping        : 1
microcode       : 0x26
cpu MHz         : 1100.000
```

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```
bugs            : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs itlb_multihit srbds
bogomips        : 3392.23
clflush size    : 64
cache_alignment : 64
address sizes   : 39 bits physical, 48 bits virtual
power management:

processor       : 3
vendor_id       : GenuineIntel
cpu family      : 6
model           : 69
model name      : Intel(R) Core(TM) i3-4010U CPU @ 1.70GHz
stepping        : 1
microcode       : 0x26
cpu MHz         : 1100.000
cache size      : 3072 KB
physical id     : 0
siblings        : 4
core id         : 1
cpu cores       : 2
apicid          : 3
initial apicid  : 3
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 dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm co
nstant_tsc arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf pni pclmulqdq dtes64 monitor ds_cpl vmx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid
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vmx flags       : vnmi preemption_timer invvpid ept_x_only ept_ad ept_1gb flexpriority tsc_offset vtpr mtf vapic ept vpid unrestricted_guest ple
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bogomips        : 3392.23
clflush size    : 64
cache_alignment : 64
address sizes   : 39 bits physical, 48 bits virtual
power management:

mint@mint:~/Desktop/c practical$
```