

```

1  /*
2  Name - Atharva Paliwal
3  Experiment no.1 - Problem Statement 2 OUTPUT
4  */
5
6  //  cat /proc/cpuinfo
7
8  processor      : 0
9  vendor_id      : GenuineIntel
10 cpu family     : 6
11 model          : 142
12 model name     : Intel(R) Core(TM) i5-8265U CPU @ 1.60GHz
13 stepping       : 11
14 cpu MHz        : 1799.997
15 cache size     : 6144 KB
16 physical id    : 0
17 siblings       : 4
18 core id        : 0
19 cpu cores      : 4
20 apicid         : 0
21 initial apicid : 0
22 fpu            : yes
23 fpu_exception  : yes
24 cpuid level    : 22
25 wp            : yes
26 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 rdtscp lm constant_tsc rep_good nopl xtopology
    nonstop_tsc cpuid pni pclmulqdq ssse3 cx16 pcid sse4_1 sse4_2 x2apic movbe popcnt aes
    xsave avx rdrand hypervisor lahf_lm abm 3dnowprefetch invpcid_single fsgsbase avx2
    invpcid rdseed clflushopt arch_capabilities
27 bugs           : spectre_v1 spectre_v2 spec_store_bypass
28 bogomips       : 3599.99
29 clflush size   : 64
30 cache_alignment : 64
31 address sizes  : 39 bits physical, 48 bits virtual
32 power management:
33
34
35
36 processor      : 1
37 vendor_id      : GenuineIntel
38 cpu family     : 6
39 model          : 142
40 model name     : Intel(R) Core(TM) i5-8265U CPU @ 1.60GHz
41 stepping       : 11
42 cpu MHz        : 1799.997
43 cache size     : 6144 KB
44 physical id    : 0
45 siblings       : 4
46 core id        : 1
47 cpu cores      : 4
48 apicid         : 1
49 initial apicid : 1
50 fpu            : yes
51 fpu_exception  : yes
52 cpuid level    : 22
53 wp            : yes
54 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 rdtscp lm constant_tsc rep_good nopl xtopology
    nonstop_tsc cpuid pni pclmulqdq ssse3 cx16 pcid sse4_1 sse4_2 x2apic movbe popcnt aes
    xsave avx rdrand hypervisor lahf_lm abm 3dnowprefetch invpcid_single fsgsbase avx2
    invpcid rdseed clflushopt arch_capabilities
55 bugs           : spectre_v1 spectre_v2 spec_store_bypass
56 bogomips       : 3599.99
57 clflush size   : 64
58 cache_alignment : 64
59 address sizes  : 39 bits physical, 48 bits virtual
60 power management:
61

```

```

62 processor      : 2
63 vendor_id      : GenuineIntel
64 cpu family     : 6
65 model          : 142
66 model name     : Intel(R) Core(TM) i5-8265U CPU @ 1.60GHz
67 stepping       : 11
68 cpu MHz        : 1799.997
69 cache size     : 6144 KB
70 physical id    : 0
71 siblings       : 4
72 core id        : 2
73 cpu cores      : 4
74 apicid         : 2
75 initial apicid : 2
76 fpu            : yes
77 fpu_exception   : yes
78 cpuid level    : 22
79 wp            : yes
80 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 rdtscp lm constant_tsc rep_good nopl xtopology
    nonstop_tsc cpuid pni pclmulqdq ssse3 cx16 pcid sse4_1 sse4_2 x2apic movbe popcnt aes
    xsave avx rdrand hypervisor lahf_lm abm 3dnowprefetch invpcid_single fsgsbase avx2
    invpcid rdseed clflushopt arch_capabilities
81 bugs           : spectre_v1 spectre_v2 spec_store_bypass
82 bogomips       : 3599.99
83 clflush size   : 64
84 cache_alignment : 64
85 address sizes  : 39 bits physical, 48 bits virtual
86 power management:
87
88 processor      : 3
89 vendor_id      : GenuineIntel
90 cpu family     : 6
91 model          : 142
92 model name     : Intel(R) Core(TM) i5-8265U CPU @ 1.60GHz
93 stepping       : 11
94 cpu MHz        : 1799.997
95 cache size     : 6144 KB
96 physical id    : 0
97 siblings       : 4
98 core id        : 3
99 cpu cores      : 4
100 apicid         : 3
101 initial apicid : 3
102 fpu            : yes
103 fpu_exception   : yes
104 cpuid level    : 22
105 wp            : yes
106 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 rdtscp lm constant_tsc rep_good nopl xtopology
    nonstop_tsc cpuid pni pclmulqdq ssse3 cx16 pcid sse4_1 sse4_2 x2apic movbe popcnt aes
    xsave avx rdrand hypervisor lahf_lm abm 3dnowprefetch invpcid_single fsgsbase avx2
    invpcid rdseed clflushopt arch_capabilities
107 bugs           : spectre_v1 spectre_v2 spec_store_bypass
108 bogomips       : 3599.99
109 clflush size   : 64
110 cache_alignment : 64
111 address sizes  : 39 bits physical, 48 bits virtual
112 power management:
113
114
115 //lscpu
116
117 Architecture:      x86_64
118 CPU op-mode(s):    32-bit, 64-bit
119 Byte Order:        Little Endian
120 CPU(s):            4
121 On-line CPU(s) list: 0-3
122 Thread(s) per core: 1

```

```
123 Core(s) per socket: 4
124 Socket(s): 1
125 NUMA node(s): 1
126 Vendor ID: GenuineIntel
127 CPU family: 6
128 Model: 142
129 Model name: Intel(R) Core(TM) i5-8265U CPU @ 1.60GHz
130 Stepping: 11
131 CPU MHz: 1799.997
132 BogomIPS: 3599.99
133 Hypervisor vendor: KVM
134 Virtualization type: full
135 L1d cache: 32K
136 L1i cache: 32K
137 L2 cache: 256K
138 L3 cache: 6144K
139 NUMA node0 CPU(s): 0-3
140 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 rdtscp lm constant_tsc rep_good nopl
xtopology nonstop_tsc cpuid pni pclmulqdq ssse3 cx16 pcid sse4_1 sse4_2 x2apic movbe
popcnt aes xsave avx rdrand hypervisor lahf_lm abm 3dnowprefetch invpcid_single
fsgsbase avx2 invpcid rdseed clflushopt arch_capabilities
```

```
141
142
143
144
145
146
147 //grep MemTotal /proc/meminfo
```

```
148
149 MemTotal: 4854284 kB
```

```
150
151
152
153 //free -m
154
155 total used free shared buff/cache available
156 Mem: 4740 1230 2549 20 960 3240
157 Swap: 2047 0 2047
```

```
158
159
160 //vmstat -f
161 2901 forks
```

```
162
163
164 //vmstat -s
165 4854284 K total memory
166 1259744 K used memory
167 1386076 K active memory
168 568680 K inactive memory
169 2610560 K free memory
170 86864 K buffer memory
171 897116 K swap cache
172 2097148 K total swap
173 0 K used swap
174 2097148 K free swap
175 37514 non-nice user cpu ticks
176 246 nice user cpu ticks
177 4941 system cpu ticks
178 1181889 idle cpu ticks
179 16007 IO-wait cpu ticks
180 0 IRQ cpu ticks
181 1111 softirq cpu ticks
182 0 stolen cpu ticks
183 828364 pages paged in
184 59184 pages paged out
185 0 pages swapped in
186 0 pages swapped out
187 1372832 interrupts
```

188 3368218 CPU context switches
189 1580062828 boot time
190 2902 forks
191
192
193
194

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195 QUESTIONS:

196

197 Q1.)

198 Ans1. 4 processors

199 CPU(s): 4

200

201 Q2.)

202 Ans2. 4 cores

203 Core(s) per socket: 4

204 Socket(s): 1

205

206 Q3.)

207 Ans3.

208 Frequency of processor 0:

209 cpu MHz : 1799.997

210 Frequency of processor 1:

211 cpu MHz : 1799.997

212 Frequency of processor 2:

213 cpu MHz : 1799.997

214 Frequency of processor 3:

215 cpu MHz : 1799.997

216

217 Q4.)

218 Ans4.

219 Physical Memory : 4854284 kB

220

221

222 MemTotal: 4854284 kB

223

224 Q5.)

225 Ans5.

226 Free meomry : 2549kB

227

	total	used	free	shared	buff/cache	available
Mem:	4740	1230	2549	20	960	3240
Swap:	2047	0	2047			

230

231

232

233 Q6.)

234 Ans6.

235 Forks 2901 forks

236

237 2901 forks

238

239 Q7.)

240 Ans7.

241 Context switches 3368218

242

243 3368218 CPU context switches

244

245 */

246

247

248