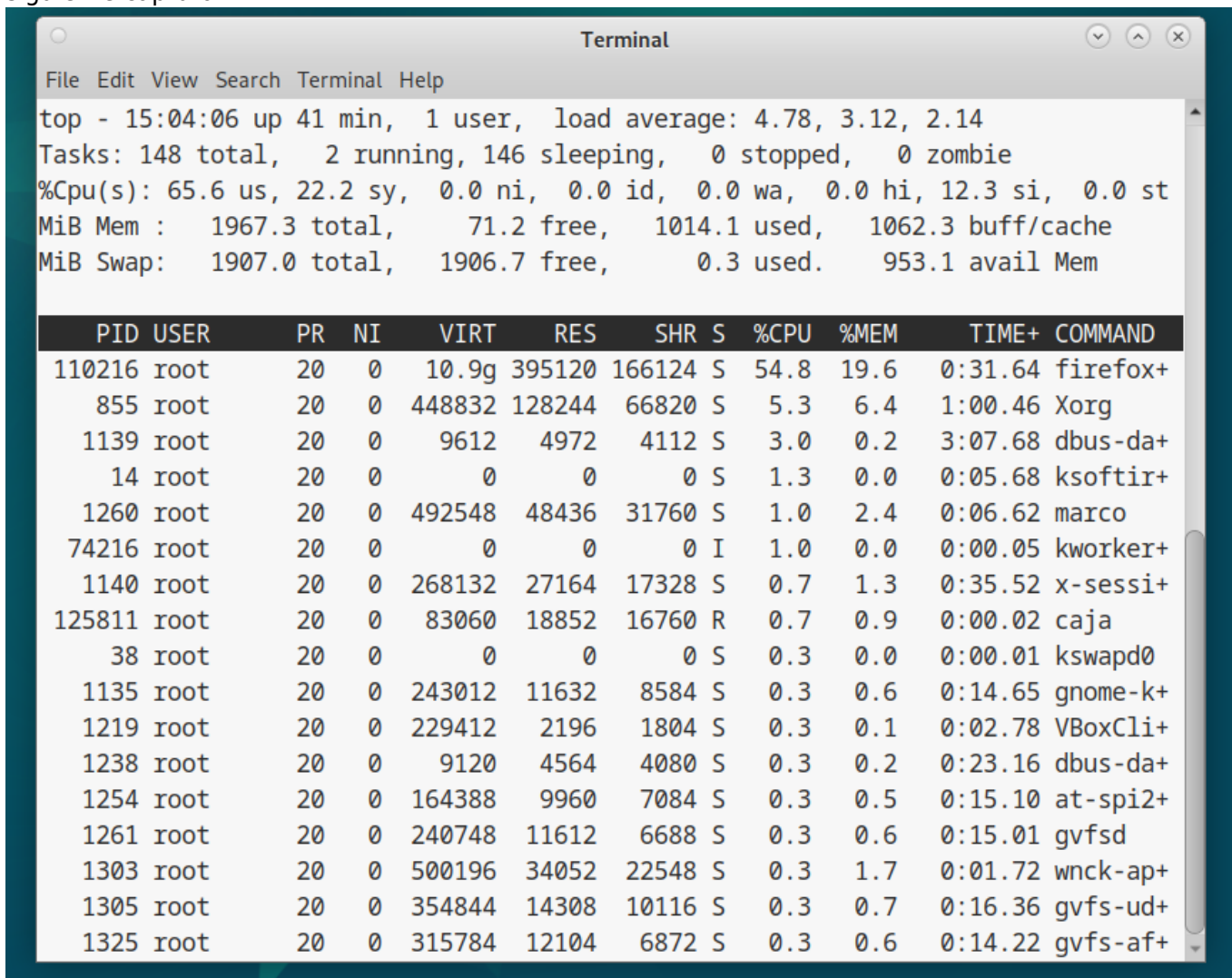


[Fort]Práctica 3: Securizando Aplicaciones

1. Abre un navegador y realiza una descarga

Revisa con el TOP el consumo de CPU

Firefox (Proceso 110216) está consumiendo en torno al 60% de la CPU como podemos ver en la siguiente captura:



```
top - 15:04:06 up 41 min, 1 user, load average: 4.78, 3.12, 2.14
Tasks: 148 total, 2 running, 146 sleeping, 0 stopped, 0 zombie
%Cpu(s): 65.6 us, 22.2 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 12.3 si, 0.0 st
MiB Mem : 1967.3 total, 71.2 free, 1014.1 used, 1062.3 buff/cache
MiB Swap: 1907.0 total, 1906.7 free, 0.3 used. 953.1 avail Mem

  PID USER      PR  NI  VIRT  RES  SHR S  %CPU  %MEM    TIME+  COMMAND
 110216 root    20   0 10.9g 395120 166124 S  54.8  19.6   0:31.64 firefox+
    855 root    20   0 448832 128244 66820 S   5.3   6.4   1:00.46 Xorg
    1139 root    20   0  9612  4972  4112 S   3.0   0.2   3:07.68 dbus-da+
    14 root    20   0     0     0     0 S   1.3   0.0   0:05.68 ksofttir+
    1260 root    20   0 492548 48436 31760 S   1.0   2.4   0:06.62 marco
 74216 root    20   0     0     0     0 I   1.0   0.0   0:00.05 kworker+
    1140 root    20   0 268132 27164 17328 S   0.7   1.3   0:35.52 x-sessi+
125811 root    20   0  83060 18852 16760 R   0.7   0.9   0:00.02 caja
    38 root    20   0     0     0     0 S   0.3   0.0   0:00.01 kswapd0
    1135 root    20   0 243012 11632  8584 S   0.3   0.6   0:14.65 gnome-k+
    1219 root    20   0 229412  2196  1804 S   0.3   0.1   0:02.78 VBoxCli+
    1238 root    20   0  9120  4564  4080 S   0.3   0.2   0:23.16 dbus-da+
    1254 root    20   0 164388  9960  7084 S   0.3   0.5   0:15.10 at-spi2+
    1261 root    20   0 240748 11612  6688 S   0.3   0.6   0:15.01 gvfsd
    1303 root    20   0 500196 34052 22548 S   0.3   1.7   0:01.72 wnck-ap+
    1305 root    20   0 354844 14308 10116 S   0.3   0.7   0:16.36 gvfs-ud+
    1325 root    20   0 315784 12104  6872 S   0.3   0.6   0:14.22 gvfs-af+
```

Usa cputlimit para reducir el consumo de CPU a 1/5 del que usa

Para realizar esto ejecutaremos los siguientes comandos:

```
cd /sys/fs/cgroup/
mkdir firefox #Creamos el cgroup para firefox
cd firefox
```

```
root@fso2025:~/Downloads# cd /sys/fs/cgroup/  
root@fso2025:/sys/fs/cgroup# mkdir firefox  
root@fso2025:/sys/fs/cgroup# cd firefox/  
root@fso2025:/sys/fs/cgroup/firefox# ls  
cgroup.controllers      cpuset.cpus.effective  memory.min  
cgroup.events           cpuset.cpus.partition  memory.numa_stat  
cgroup.freeze           cpuset.mems             memory.oom.group  
cgroup.kill             cpuset.mems.effective  memory.peak  
cgroup.max.depth        cpu.stat                 memory.pressure  
cgroup.max.descendants    cpu.weight               memory.reclaim  
cgroup.pressure          cpu.weight.nice          memory.stat  
cgroup.procs            io.max                   memory.swap.current  
cgroup.stat             io.pressure              memory.swap.events  
cgroup.subtree_control  io.stat                  memory.swap.high  
cgroup.threads          io.weight                memory.swap.max  
cgroup.type             memory.current           memory.zswap.current  
cpu.idle                 memory.events            memory.zswap.max  
cpu.max                  memory.events.local     pids.current  
cpu.max.burst           memory.high              pids.events  
cpu.pressure             memory.low               pids.max  
cpuset.cpus             memory.max               pids.peak  
root@fso2025:/sys/fs/cgroup/firefox# █
```

Tras eso añadimos firefox al cgroup y procedemos a limitar su consumo de CPU

```
echo 110216 > cgroup.procs#Metemos el proceso de firefox en el cgroup  
echo 200000 1000000 > cpu.max #Limitamos el uso de CPU al 20%
```

```
root@fso2025:/sys/fs/cgroup/firefox# echo 110216 > cgroup.procs  
root@fso2025:/sys/fs/cgroup/firefox# echo 200000 1000000 > cpu.max  
root@fso2025:/sys/fs/cgroup/firefox# █
```

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