

EJERCICIOS

PSP

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Actividad 1:

Primero creamos el archivo shell, en mi caso es Act1.sh, y a continuacion le damos permisos de ejecucion con

```
$ chmod +x Act1.sh
```

Ejecutaremos el script con

```
$ ./Act1.sh
```

El codigo del script es:

```
#!/bin/bash

clear
firefox &
echo "esperando 15 segundos para que firefox se abra completamente"
echo
sleep 15
echo "PIDs firefox:"
pidof firefox
echo "======"
echo "ps -ef | grep firefox:"
echo
ps -ef | grep firefox
echo "======"
echo "ps -o pid,ppid,cmd,state,user | grep firefox:"
echo
ps -o pid,ppid,cmd,state,user | grep firefox
```

El resultado de ejecutar el script es:

```
esperando 15 segundos para que firefox se abra completamente

PIDs firefox:
22461 22356 22318 22243 22209 22148
=====
ps -ef | grep firefox:

jasnah  22148  22146 33 09:09 pts/4    00:00:05 /usr/lib/firefox/firefox
jasnah  22209  22148  0 09:09 pts/4    00:00:00 /usr/lib/firefox/firefox -contentproc -parentBuildID
20211004184504 -prefsLen 1 -prefMapSize 251657 -appdir /usr/lib/firefox/browser 22148 true socket
jasnah  22243  22148  6 09:09 pts/4    00:00:00 /usr/lib/firefox/firefox -contentproc -childID 1 -is
ForBrowser -prefsLen 65 -prefMapSize 251657 -jsInit 286204 -parentBuildID 20211004184504 -appdir /usr/li
b/firefox/browser 22148 true tab
jasnah  22318  22148 15 09:09 pts/4    00:00:02 /usr/lib/firefox/firefox -contentproc -childID 2 -is
ForBrowser -prefsLen 4773 -prefMapSize 251657 -jsInit 286204 -parentBuildID 20211004184504 -appdir /usr/
lib/firefox/browser 22148 true tab
jasnah  22356  22148  2 09:09 pts/4    00:00:00 /usr/lib/firefox/firefox -contentproc -childID 3 -is
ForBrowser -prefsLen 5408 -prefMapSize 251657 -jsInit 286204 -parentBuildID 20211004184504 -appdir /usr/
lib/firefox/browser 22148 true tab
jasnah  22461  22148  0 09:09 pts/4    00:00:00 /usr/lib/firefox/firefox -contentproc -childID 4 -is
ForBrowser -prefsLen 5408 -prefMapSize 251657 -jsInit 286204 -parentBuildID 20211004184504 -appdir /usr/
lib/firefox/browser 22148 true tab
jasnah  22530  22146  0 09:09 pts/4    00:00:00 grep firefox
=====
ps -o pid,ppid,cmd,state,user | grep firefox:

 22148  22146 /usr/lib/firefox/firefox  S jasnah
 22209  22148 /usr/lib/firefox/firefox -c S jasnah
 22243  22148 /usr/lib/firefox/firefox -c S jasnah
 22318  22148 /usr/lib/firefox/firefox -c S jasnah
 22356  22148 /usr/lib/firefox/firefox -c S jasnah
 22461  22148 /usr/lib/firefox/firefox -c S jasnah
 22532  22146 grep firefox              S jasnah
[jasnah@hopper Exercicis]$
```

En htop, la informacion sobre firefox coincide:

PID	USER	PRI	NI	VIRT	RES	SHR	S	CPU%	MEM%	TIME+	Command
22148	jasnah	20	0	3362M	337M	187M	S	1.3	1.4	0:07.00	/usr/lib/firefox/firefox
22209	jasnah	20	0	233M	52036	43736	S	0.0	0.2	0:00.03	/usr/lib/firefox/firefox -contentproc -parentBuildID 2021100418450
22215	jasnah	20	0	233M	52036	43736	S	0.0	0.2	0:00.00	/usr/lib/firefox/firefox -contentproc -parentBuildID 2021100418
22216	jasnah	20	0	233M	52036	43736	S	0.0	0.2	0:00.00	/usr/lib/firefox/firefox -contentproc -parentBuildID 2021100418
22222	jasnah	20	0	233M	52036	43736	S	0.0	0.2	0:00.00	/usr/lib/firefox/firefox -contentproc -parentBuildID 2021100418
22461	jasnah	20	0	2379M	83072	69692	S	0.0	0.3	0:00.11	/usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser -pr
22465	jasnah	20	0	2379M	83072	69692	S	0.0	0.3	0:00.00	/usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser
22466	jasnah	20	0	2379M	83072	69692	S	0.0	0.3	0:00.00	/usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser
22467	jasnah	20	0	2379M	83072	69692	S	0.0	0.3	0:00.00	/usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser
22468	jasnah	20	0	2379M	83072	69692	S	0.0	0.3	0:00.00	/usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser
22469	jasnah	20	0	2379M	83072	69692	S	0.0	0.3	0:00.00	/usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser
22470	jasnah	20	0	2379M	83072	69692	S	0.0	0.3	0:00.00	/usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser
22471	jasnah	20	0	2379M	83072	69692	S	0.0	0.3	0:00.00	/usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser
22472	jasnah	20	0	2379M	83072	69692	S	0.0	0.3	0:00.00	/usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser
22473	jasnah	20	0	2379M	83072	69692	S	0.0	0.3	0:00.00	/usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser
22474	jasnah	20	0	2379M	83072	69692	S	0.0	0.3	0:00.00	/usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser
22475	jasnah	20	0	2379M	83072	69692	S	0.0	0.3	0:00.00	/usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser

matariamos todos los procesos de firefox con kill [pid de proceso padre], en este caso:

```
$ killall firefox
```

Por alguna razon no funciona killall, asi que usaremos estas opciones:

```
$ kill 22148
```

Si no se cerrase, hariamos

```
$ kill -9 22148
```

Actividad 2:

Para comprobar que el servicio ssh este instalado y que el servicio funciona, usamos el comando:

```
$ sudo systemctl status sshd.service
```

Para parar el servicio usamos el comando:

```
$ sudo systemctl stop sshd.service
```

Para reiniciar el servicio usamos el comando:

```
$ sudo systemctl restart sshd.service
```

```
> sudo systemctl status sshd.service
○ sshd.service - OpenSSH Daemon
   Loaded: loaded (/usr/lib/systemd/system/sshd.service; disabled; vendor preset: disabled)
   Active: inactive (dead)

> sudo systemctl restart sshd.service
> sudo systemctl status sshd.service
● sshd.service - OpenSSH Daemon
   Loaded: loaded (/usr/lib/systemd/system/sshd.service; disabled; vendor preset: disabled)
   Active: active (running) since Tue 2021-10-19 09:44:17 CEST; 2s ago
     Main PID: 30887 (sshd)
       Tasks: 1 (limit: 28736)
      Memory: 916.0K
         CPU: 12ms
       CGroup: /system.slice/sshd.service
               └─30887 "sshd: /usr/bin/sshd -D [listener] 0 of 10-100 startups"

oct 19 09:44:17 hopper systemd[1]: Started OpenSSH Daemon.
oct 19 09:44:17 hopper sshd[30887]: Server listening on 0.0.0.0 port 22.
oct 19 09:44:17 hopper sshd[30887]: Server listening on :: port 22.
```

Actividad 3:

El script es el siguiente:

```
#!/bin/bash

clear
echo "exec 3<>/dev/tcp/www.google.com/80"
exec 3<>/dev/tcp/www.google.com/80
echo "file /proc/$$/fd/*"
file /proc/$$/fd/*
#echo ""
echo "GET /" >&3
cat <&3 > arxiu.txt
```

Y crea el archivo correctamente. El archivo comienza así:

HTTP/1.0 200 OK

Date: Tue, 19 Oct 2021 18:53:35 GMT

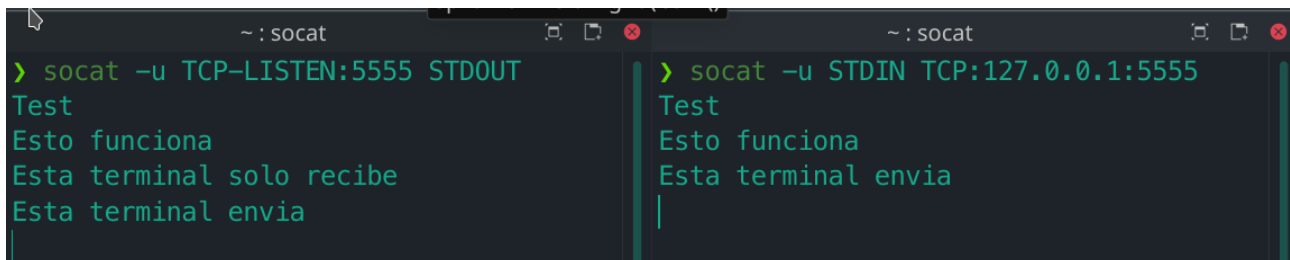
Expires: -1

Cache-Control: private, max-age=0

Content-Type: text/html; charset=ISO-8859-1

P3P: CP="This is not a P3P policy! See g.co/p3phelp for more info."

Actividad 4:



```
~ : socat
> socat -u TCP-LISTEN:5555 STDOUT
Test
Esto funciona
Esta terminal solo recibe
Esta terminal envia

~ : socat
> socat -u STDIN TCP:127.0.0.1:5555
Test
Esto funciona
Esta terminal envia
|
```