



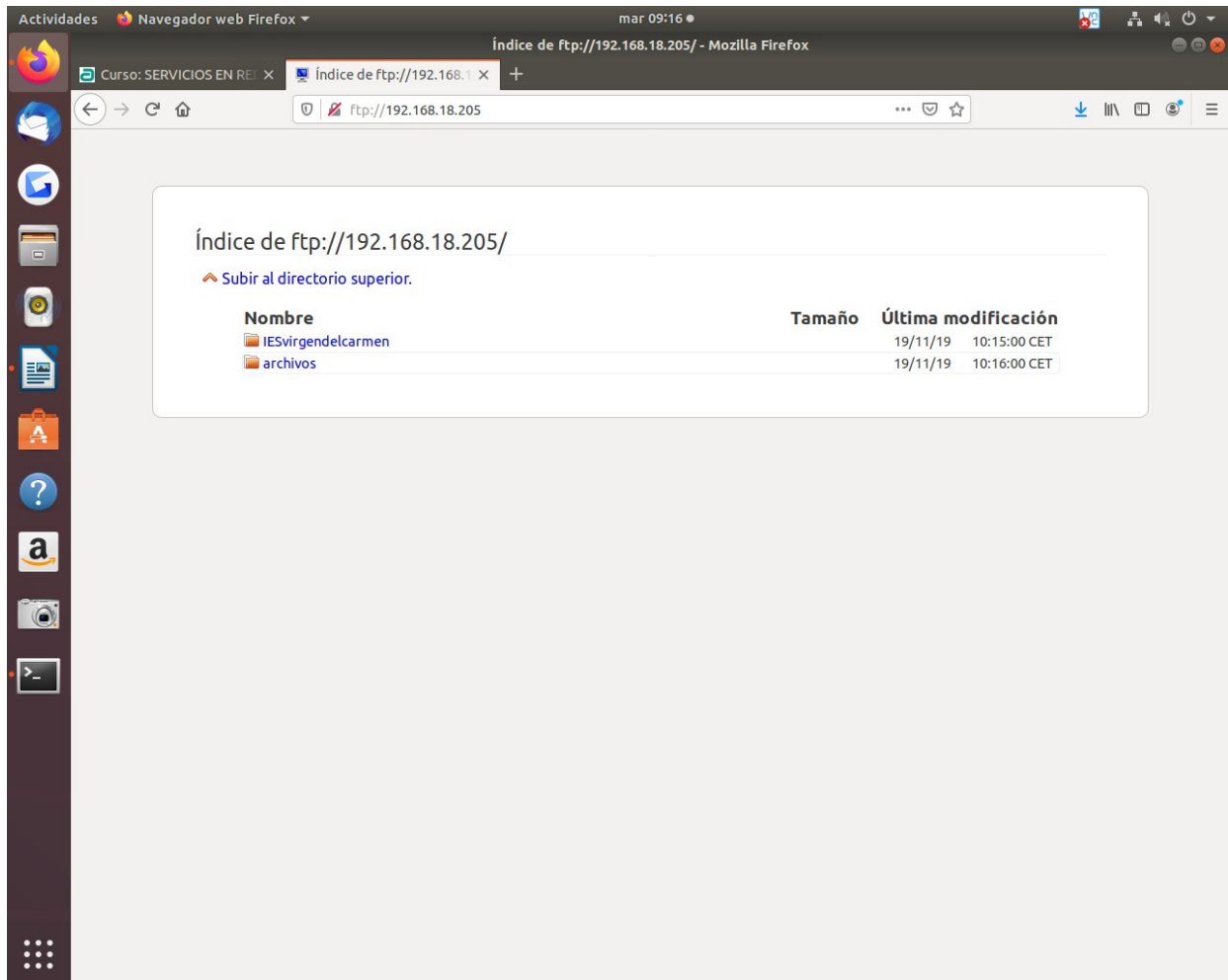
PRÁCTICA SERVIDOR FTP

1. Una vez instalado vsftpd, realiza un pantallazo del comando netstat -atun y resalta el puerto que usa este servicio.

```
pi@raspberrypi:~ $ netstat -atun
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 0.0.0.0:139             0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:5900            0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:21              0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:*               0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:*               0.0.0.0:*               LISTEN
tcp        0      0 127.0.0.1:43621         127.0.0.1:53058         ESTABLISHED
tcp        0      0 127.0.0.1:53058         127.0.0.1:43621         ESTABLISHED
tcp        0  172    192.168.18.205:2222     192.168.18.136:35558     ESTABLISHED
tcp        0      0 192.168.18.205:139      192.168.18.149:60556     ESTABLISHED
tcp        0      0 192.168.18.205:139      192.168.18.123:44958     ESTABLISHED
tcp        0      0 192.168.18.205:2222     192.168.18.84:50896      ESTABLISHED
tcp        0      0 192.168.18.205:139      192.168.18.111:55090     ESTABLISHED
tcp6       0      0 :::139                  :::*                     LISTEN
tcp6       0      0 :::5900                  :::*                     LISTEN
tcp6       0      0 :::2222                  :::*                     LISTEN
tcp6       0      0 :::445                   :::*                     LISTEN
udp        0      0 0.0.0.0:35299           0.0.0.0:*               *
udp        0      0 0.0.0.0:68              0.0.0.0:*               *
udp        0      0 192.168.18.255:137      0.0.0.0:*               *
udp        0      0 192.168.18.205:137      0.0.0.0:*               *
udp        0      0 0.0.0.0:137             0.0.0.0:*               *
udp        0      0 192.168.18.255:138      0.0.0.0:*               *
udp        0      0 192.168.18.205:138      0.0.0.0:*               *
udp        0      0 0.0.0.0:138             0.0.0.0:*               *
udp        0      0 0.0.0.0:5353            0.0.0.0:*               *
udp6       0      0 :::32884                 :::*                     *
udp6       0      0 :::5353                  :::*                     *
```



2. Habilita el servidor para que puedas acceder como anónimo, usando el navegador accede al mismo. Presenta un pantallazo de esta última acción.



- Habilita el servidor para que puedas acceder como usuario de sistema de manera que puedas no solo descargar archivos sino también subir ficheros. Comprueba mediante una acceso desde la línea de comandos, que puedes realizar dicha acción. Presenta un pantallazo.

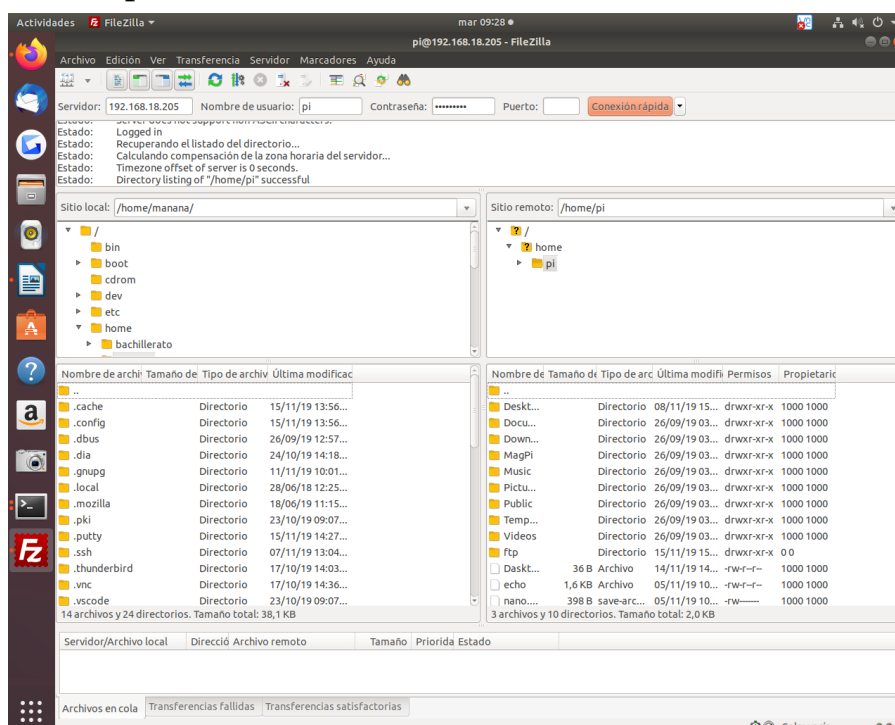
```
GNU nano 3.2 /etc/vsftpd.conf

#
# Run standalone? vsftpd can run either from an inetd or as a standalone
# daemon started from an initscript.
listen=YES
#
# This directive enables listening on IPv6 sockets. By default, listening
# on the IPv6 "any" address (:::) will accept connections from both IPv6
# and IPv4 clients. It is not necessary to listen on *both* IPv4 and IPv6
# sockets. If you want that (perhaps because you want to listen on specific
# addresses) then you must run two copies of vsftpd with two configuration
# files.
#listen_ipv6=YES
#
# Allow anonymous FTP? (Disabled by default).
anonymous_enable=NO

# Uncomment this to allow local users to log in.
local_enable=YES

^G Ver ayuda ^O Guardar ^W Buscar ^K Cortar txt ^J Justificar ^C Posición
^X Salir ^R Leer fich. ^\ Reemplazar ^U Pegar txt ^T Ortografía ^_ Ir a línea
```

- Instala un cliente FTP gráfico y realiza una transferencia de ficheros. Presenta un pantallazo.



7. Cambia la configuración de tu servidor para que trabaje en modo pasivo, realiza un pantallazo de wireshark que demuestre que esta acción.

Actividades Wireshark mar 09:54

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Apply a display filter ... <Ctrl-/> Expression...

No.	Time	Source	Destination	Protocol	Length	Info
95	16.874109419	192.168.18.98	192.168.18.201	TCP	66	36870 → 22 [ACK] Seq=289 Ack=1233 Win=1444 Len=0 TSval=2539291578 TSecr=3551580275
96	17.187640003	192.168.18.98	192.168.18.201	SSH	102	Client: Encrypted packet (len=36)
97	17.189169263	192.168.18.98	192.168.18.201	TCP	66	36870 → 22 [ACK] Seq=325 Ack=1293 Win=1444 Len=0 TSval=2539291893 TSecr=3551580591
98	17.290021379	192.168.18.98	192.168.18.201	TCP	66	36870 → 22 [ACK] Seq=325 Ack=1385 Win=1444 Len=0 TSval=2539291994 TSecr=3551580691
99	18.244754376	0.LinkIn.ge:73:7a	Spanning-tree (for...	STP	60	RS1: Root = 10084/9/3c:af:f7:0e:73:60 Cost = 0 Port = 80012
100	18.684618573	192.168.18.111	192.168.18.204	TCP	74	54810 → 21 [SYN] Seq=0 Win=29200 Len=0 MSS=1460 SACK_PERM=1 TSval=2493179445 TSecr=
101	18.685359704	192.168.18.111	192.168.18.204	TCP	66	54810 → 21 [ACK] Seq=1 Ack=1 Win=29312 Len=0 TSval=2493179446 TSecr=1867885381
102	18.698701919	192.168.18.111	192.168.18.204	TCP	66	54810 → 21 [ACK] Seq=1 Ack=21 Win=29312 Len=0 TSval=2493179459 TSecr=1867885395
103	18.698707655	192.168.18.111	192.168.18.204	FTP	76	Request: AUTH TLS
104	18.699547139	192.168.18.111	192.168.18.204	FTP	76	Request: AUTH SSL
105	18.700157486	192.168.18.111	192.168.18.204	FTP	75	Request: USER pi
106	18.700757933	192.168.18.111	192.168.18.204	FTP	82	Request: PASS raspberry
107	18.964648001	192.168.18.111	192.168.18.204	FTP	88	Request: CWD /home/pi/Desktop
108	18.965779543	192.168.18.111	192.168.18.204	FTP	74	Request: TYPE I

Frame 105: 75 bytes on wire (600 bits), 75 bytes captured (600 bits) on interface 0

Ethernet II, Src: HewlettP_0b:28:36 (a0:d3:c1:0b:28:36), Dst: Raspberr_4b:82:c8 (b8:27:eb:4b:82:c8)

Internet Protocol Version 4, Src: 192.168.18.111, Dst: 192.168.18.204

Transmission Control Protocol, Src Port: 54810, Dst Port: 21, Seq: 21, Ack: 97, Len: 9

Source Port: 54810

Destination Port: 21

[Stream index: 4]

[TCP Segment Len: 9]

Sequence number: 21 (relative sequence number)

[Next sequence number: 30 (relative sequence number)]

Acknowledgment number: 97 (relative ack number)

1000... = Header Length: 32 bytes (8)

Flags: 0x018 (PSH, ACK)

Window size value: 229

[Calculated window size: 29312]

0000 00 20 40 4b 82 c8 a0 d3 c1 0b 28 36 08 00 45 00 K... (6-E

0010 00 3d af fb 40 00 00 06 e4 33 c0 a8 12 6f c0 a8 ... @... 3...o...

0020 12 cc d6 1a 00 15 22 a3 0f 28 41 50 b6 fc 80 18 (AP...

0030 00 e5 0b 46 00 00 01 01 08 0a 94 9a e6 45 6f 55 ... F... ..EoU

0040 ab 54 55 53 45 52 20 70 69 0d 0a TUSER p i...

wireshark_eno1_20191119094452_SNIhZI.pcapng Packets: 257 · Displayed: 257 (100.0%) · Dropped: 0 (0.0%) · Profile: Default



8. Muestra datos del fichero de log del servicio, resalta una conexión como anónimo y otra como usuario de sistema. Explica dichas entradas.

```
pi@raspberrypi: /var/log $ sudo cat vsftpd.log
Thu Nov 14 13:34:55 2019 [pid 1394] CONNECT: Client "192.168.18.212"
Fri Nov 15 14:37:27 2019 [pid 982] CONNECT: Client "192.168.18.136"
Fri Nov 15 14:37:27 2019 [pid 981] [pi] OK LOGIN: Client "192.168.18.136"
Tue Nov 19 09:14:58 2019 [pid 2671] CONNECT: Client "192.168.18.136"
Tue Nov 19 09:14:58 2019 [pid 2670] [ftp] OK LOGIN: Client "192.168.18.136", anon password "mozilla@example.com"
Tue Nov 19 09:16:08 2019 [pid 2700] CONNECT: Client "192.168.18.136"
Tue Nov 19 09:16:08 2019 [pid 2699] [ftp] OK LOGIN: Client "192.168.18.136", anon password "mozilla@example.com"
Tue Nov 19 09:21:40 2019 [pid 2759] CONNECT: Client "192.168.18.136"
Tue Nov 19 09:21:40 2019 [pid 2758] [ftp] OK LOGIN: Client "192.168.18.136", anon password "mozilla@example.com"
Tue Nov 19 09:23:45 2019 [pid 2784] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:23:45 2019 [pid 2783] [ftp] OK LOGIN: Client "192.168.18.84", anon password "mozilla@example.com"
Tue Nov 19 09:23:53 2019 [pid 2793] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:23:53 2019 [pid 2792] [ftp] OK LOGIN: Client "192.168.18.84", anon password "mozilla@example.com"
Tue Nov 19 09:23:55 2019 [pid 2796] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:23:55 2019 [pid 2795] [ftp] OK LOGIN: Client "192.168.18.84", anon password "mozilla@example.com"
Tue Nov 19 09:23:56 2019 [pid 2799] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:23:56 2019 [pid 2798] [ftp] OK LOGIN: Client "192.168.18.84", anon password "mozilla@example.com"
Tue Nov 19 09:23:57 2019 [pid 2802] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:23:57 2019 [pid 2801] [ftp] OK LOGIN: Client "192.168.18.84", anon password "mozilla@example.com"
Tue Nov 19 09:25:51 2019 [pid 2810] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:25:51 2019 [pid 2809] [ftp] OK LOGIN: Client "192.168.18.84", anon password "raspberrypi"
Tue Nov 19 09:26:31 2019 [pid 2813] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:26:31 2019 [pid 2812] [ftp] OK LOGIN: Client "192.168.18.84", anon password "mozilla@example.com"
Tue Nov 19 09:26:32 2019 [pid 2816] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:26:32 2019 [pid 2815] [ftp] OK LOGIN: Client "192.168.18.84", anon password "mozilla@example.com"
Tue Nov 19 09:26:34 2019 [pid 2819] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:26:34 2019 [pid 2818] [ftp] OK LOGIN: Client "192.168.18.84", anon password "mozilla@example.com"
Tue Nov 19 09:26:35 2019 [pid 2822] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:26:35 2019 [pid 2821] [ftp] OK LOGIN: Client "192.168.18.84", anon password "mozilla@example.com"
Tue Nov 19 09:27:49 2019 [pid 2826] CONNECT: Client "192.168.18.136"
Tue Nov 19 09:27:49 2019 [pid 2825] [pi] OK LOGIN: Client "192.168.18.136"
Tue Nov 19 09:33:20 2019 [pid 2882] CONNECT: Client "192.168.18.136"
Tue Nov 19 09:33:43 2019 [pid 2890] CONNECT: Client "192.168.18.136"
Tue Nov 19 09:33:44 2019 [pid 2889] [pi] OK LOGIN: Client "192.168.18.136"
Tue Nov 19 09:34:00 2019 [pid 2900] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:34:04 2019 [pid 2899] [pi] OK LOGIN: Client "192.168.18.84"
Tue Nov 19 09:34:44 2019 [pid 2911] CONNECT: Client "192.168.18.136"
Tue Nov 19 09:34:54 2019 [pid 2910] [anon] FAIL LOGIN: Client "192.168.18.136"
Tue Nov 19 09:35:13 2019 [pid 2916] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:35:17 2019 [pid 2915] [pi] OK LOGIN: Client "192.168.18.84"
Tue Nov 19 09:35:20 2019 [pid 2924] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:35:24 2019 [pid 2923] [pi] OK LOGIN: Client "192.168.18.84"
Tue Nov 19 09:35:27 2019 [pid 2931] CONNECT: Client "192.168.18.136"
Tue Nov 19 09:35:31 2019 [pid 2930] [ftp] OK LOGIN: Client "192.168.18.136", anon password "?"
Tue Nov 19 09:35:52 2019 [pid 2934] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:35:55 2019 [pid 2933] [pi] OK LOGIN: Client "192.168.18.84"
Tue Nov 19 09:35:59 2019 [pid 2941] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:36:03 2019 [pid 2940] [pi] OK LOGIN: Client "192.168.18.84"
Tue Nov 19 09:39:34 2019 [pid 2975] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:39:47 2019 [pid 2974] [manana] FAIL LOGIN: Client "192.168.18.84"
Tue Nov 19 09:40:01 2019 [pid 2981] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:40:08 2019 [pid 2980] [anon] FAIL LOGIN: Client "192.168.18.84"
Tue Nov 19 09:44:37 2019 [pid 2990] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:44:46 2019 [pid 2989] [pi] OK LOGIN: Client "192.168.18.84"
Tue Nov 19 09:44:59 2019 [pid 2998] CONNECT: Client "192.168.18.136"
Tue Nov 19 09:44:59 2019 [pid 2997] [pi] OK LOGIN: Client "192.168.18.136"
Tue Nov 19 09:45:21 2019 [pid 3010] [pi] OK UPLOAD: Client "192.168.18.136", "/home/pi/javascript-common.conf", 132 bytes, 4.85Kbyte/sec
Tue Nov 19 09:51:46 2019 [pid 3035] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:52:40 2019 [pid 3046] [pi] OK LOGIN: Client "192.168.18.84"
Tue Nov 19 09:52:53 2019 [pid 3054] CONNECT: Client "192.168.18.84"
Tue Nov 19 09:52:59 2019 [pid 3053] [anon] FAIL LOGIN: Client "192.168.18.84"
Tue Nov 19 09:53:09 2019 [pid 3058] CONNECT: Client "192.168.18.84"
e Nov 19 09:54:28 2019 [pid 3063] [ftp] OK LOGIN: Client "192.168.18.84", anon password "?"
e Nov 19 09:58:08 2019 [pid 3096] CONNECT: Client "192.168.18.84"
```