

Universidad del Valle de Guatemala
Facultad de Ingeniería
Redes
Profesor: Jorge Yass

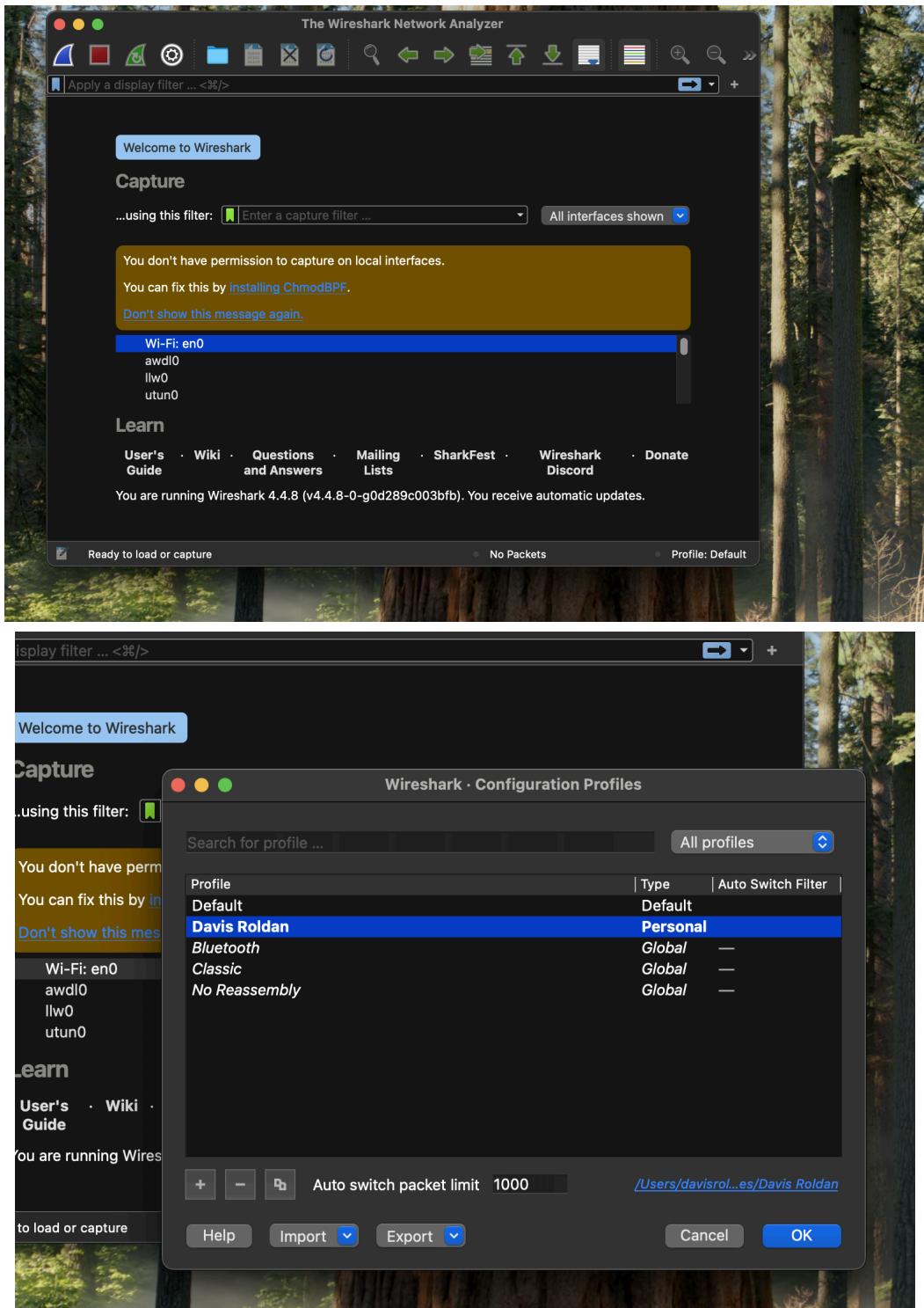


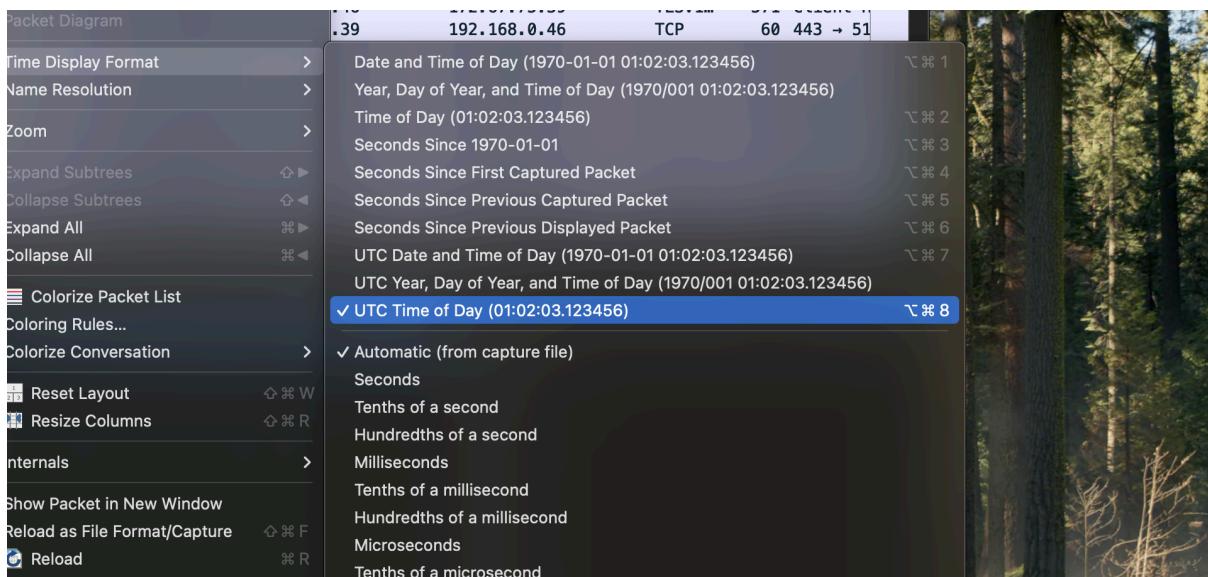
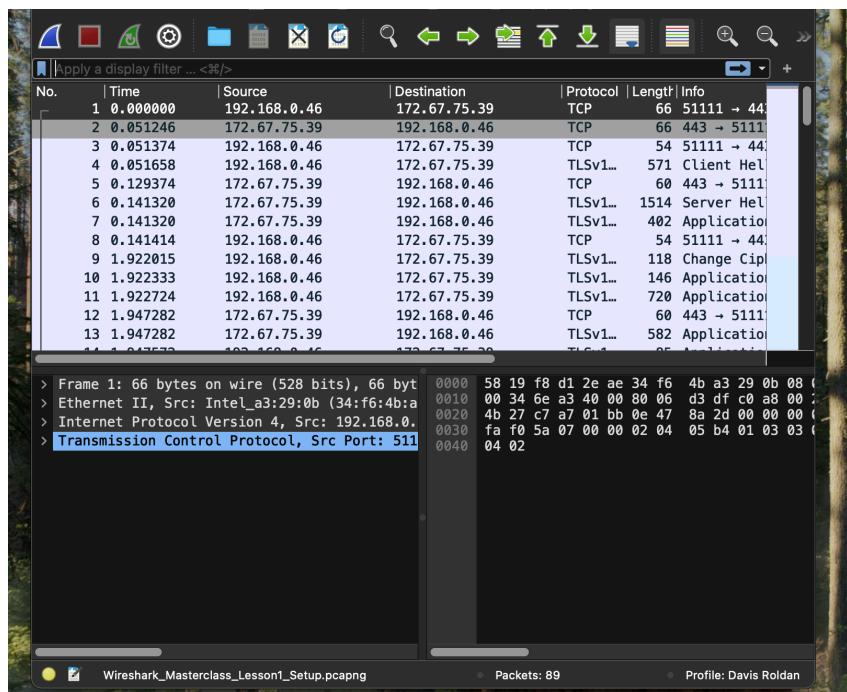
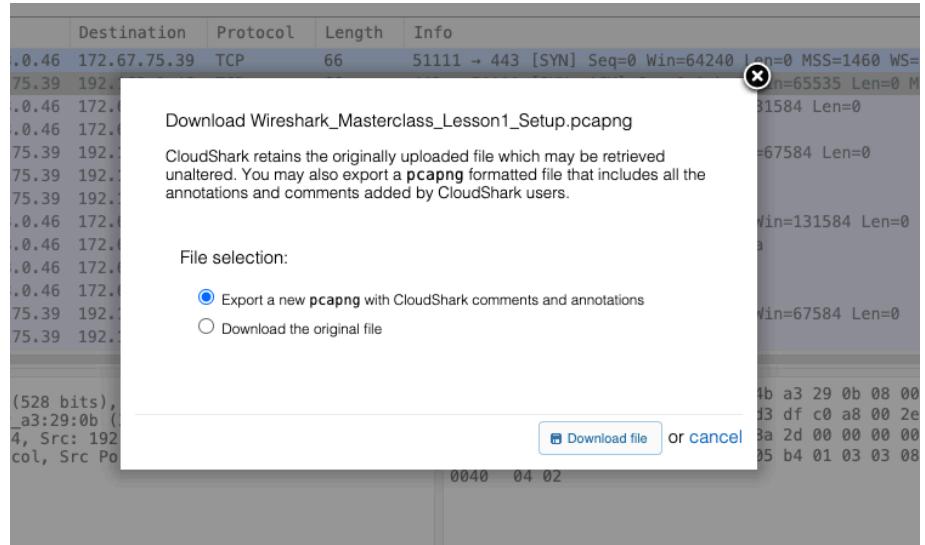
“Lab 1 Redes parte 2”

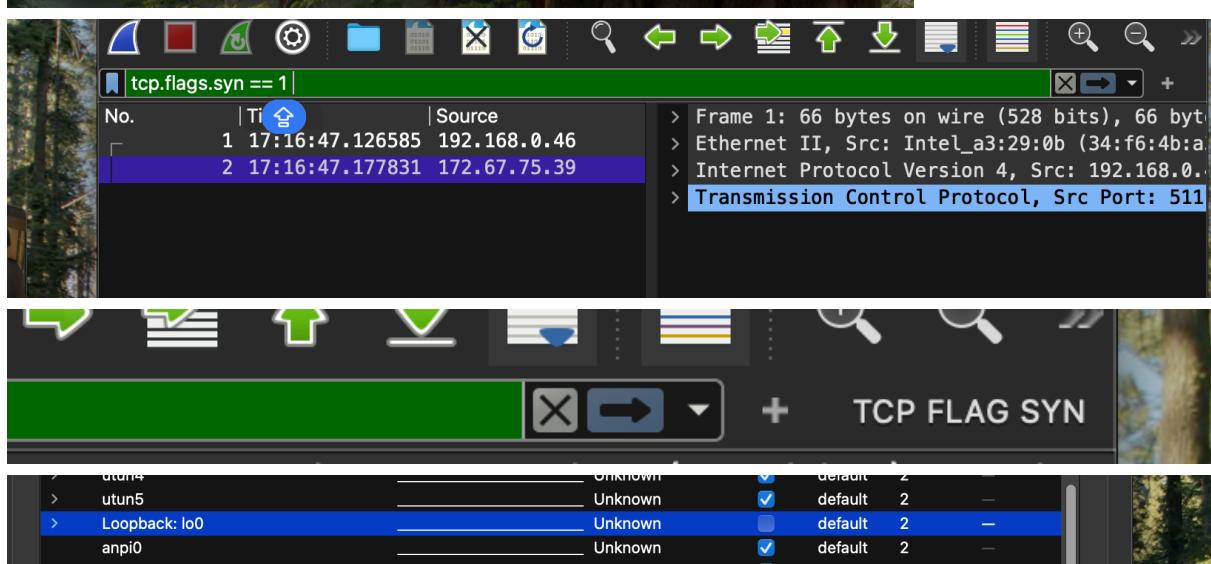
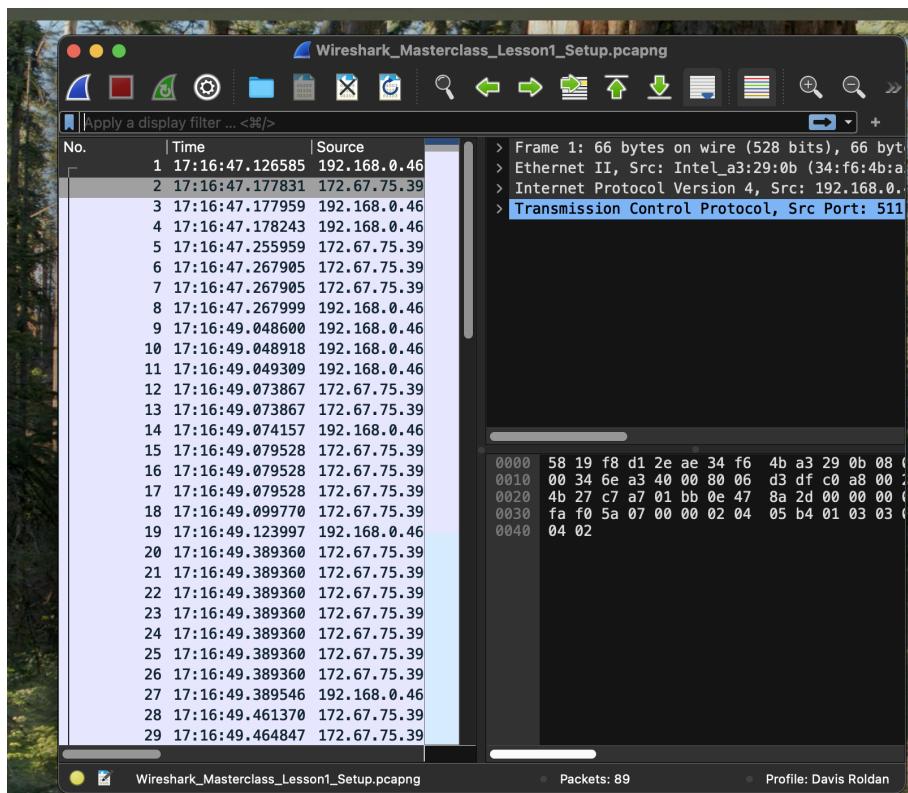
Davis Roldán 22672

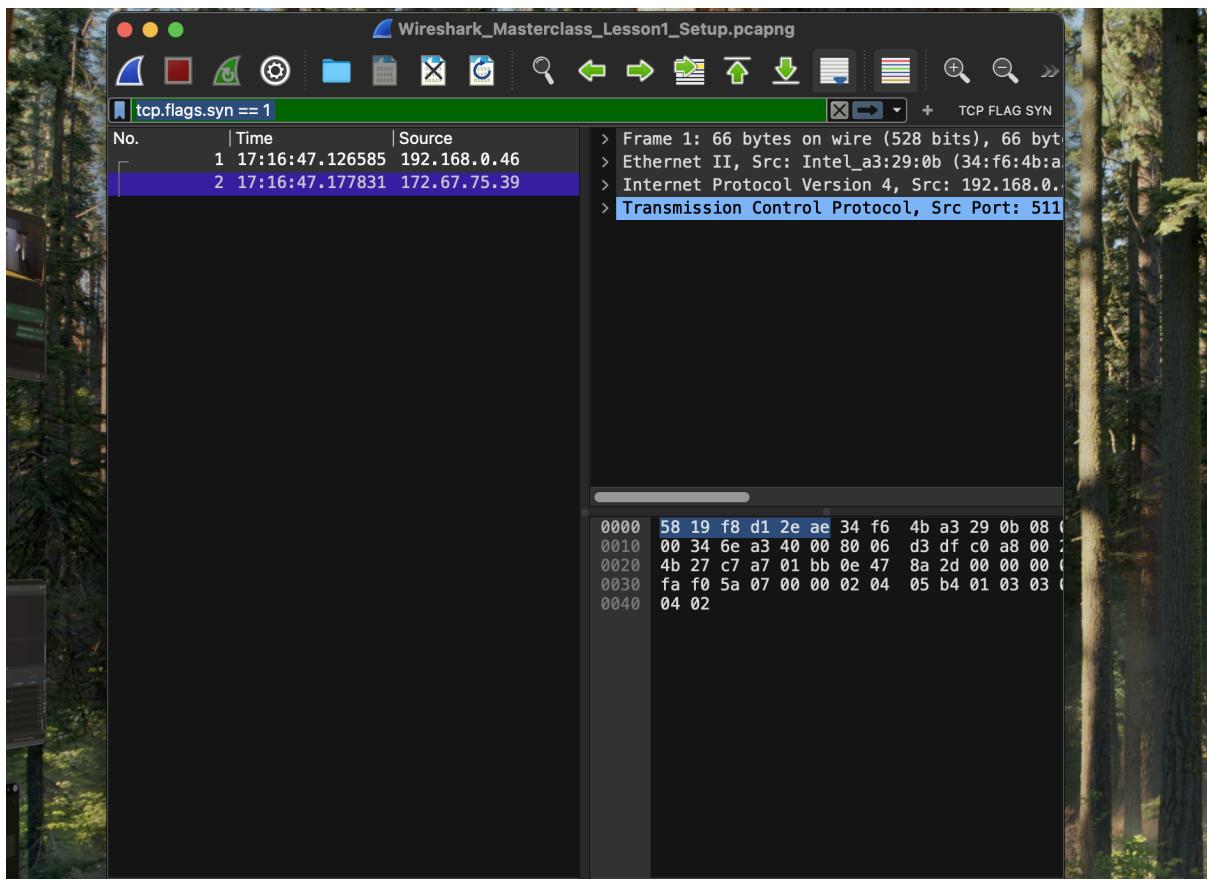
10 de julio del 2025, Guatemala de la Asunción

Parte 2









Configuración de la captura de paquetes

```
Last login: Thu Jul 10 20:55:22 on ttys000
[davisoroldanordonez@Davis-MacBook-Air ~ % ipconfig
usage: ipconfig <command> <args>
where <command> is one of waitall, getifaddr, ifcount, getoptoption, getiflist, getsummary, getpacket, getv6pa
cket, getra, getdhcpduid, getdhcpiaid, set, setverbose
davisoroldanordonez@Davis-MacBook-Air ~ % ifconfig
lo0: flags=8049<UP,LOOPBACK,RUNNING,MULTICAST> mtu 16384
    options=1203<RXCSUM,TXCSUM,TXSTATUS,SW_TIMESTAMP>
    inet 127.0.0.1 netmask 0xff000000
        inet6 ::1 prefixlen 128
            inet6 fe80::1%lo0 prefixlen 64 scopeid 0x1
                nd6 options=201<PERFORMNUD,DAD>
gif0: flags=8010<POINTOPOINT,MULTICAST> mtu 1280
stf0: flags=0<> mtu 1280
anpi0: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
    options=400<CHANNEL_IO>
    ether 92:2e:ea:d4:32:92
    media: none
    status: inactive
anpi1: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
    options=400<CHANNEL_IO>
    ether 92:2e:ea:d4:32:93
    media: none
    status: inactive
en3: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
    options=400<CHANNEL_IO>
    ether 92:2e:ea:d4:32:72
    nd6 options=201<PERFORMNUD,DAD>



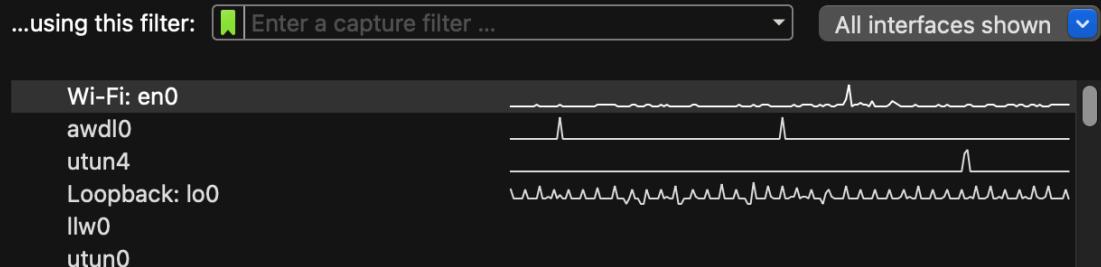
| Interface                   | Flags   | MTU | Options | Media | Status | Link Layer Address | MAC Address |
|-----------------------------|---------|-----|---------|-------|--------|--------------------|-------------|
| Wi-Fi: en0                  | Unknown | 2   | —       | —     | —      | —                  | —           |
| awdl0                       | Unknown | 2   | —       | —     | —      | —                  | —           |
| llw0                        | Unknown | 2   | —       | —     | —      | —                  | —           |
| tun0                        | Unknown | 2   | —       | —     | —      | —                  | —           |
| utun1                       | Unknown | 2   | —       | —     | —      | —                  | —           |
| utun2                       | Unknown | 2   | —       | —     | —      | —                  | —           |
| utun3                       | Unknown | 2   | —       | —     | —      | —                  | —           |
| utun4                       | Unknown | 2   | —       | —     | —      | —                  | —           |
| utun5                       | Unknown | 2   | —       | —     | —      | —                  | —           |
| Loopback: lo0               | Unknown | 2   | —       | —     | —      | —                  | —           |
| anpi0                       | Unknown | 2   | —       | —     | —      | —                  | —           |
| anpi1                       | Unknown | 2   | —       | —     | —      | —                  | —           |
| Ethernet Adapter (en3): en3 | Unknown | 2   | —       | —     | —      | —                  | —           |
| Ethernet Adapter (en4): en4 | Unknown | 2   | —       | —     | —      | —                  | —           |


```

Open

/Users/davisoroldanordonez/Downloads/Wireshark_Masterclass_Lesson1_Setup.pcapng (73 KB)

Capture

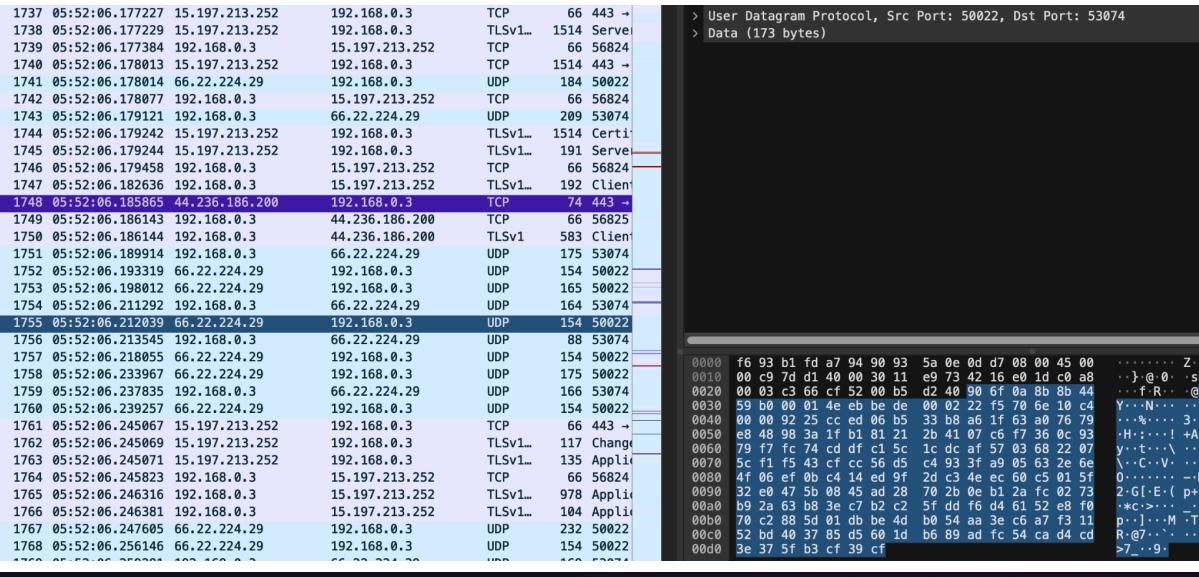


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The image shows a Mac desktop environment. In the top half, a Finder window is open, displaying a folder named 'lab07-datawar...ises.csv'. Inside this folder are several files: 'redes', 'lab1_22672_2025_071723...2.pcapng', and multiple files named '010101', '011010', and '011100' in both PCAPNG and PCAP formats. To the right of the Finder window are two other folders: 'app-example' and 'compiladores2'. On the left side of the desktop, there's a sidebar with 'Tags' (Red, Orange, Yellow, Green) and a preview of a file named 'lab1_22672_2025_071723...6.pcapng'. Below the desktop is a large window for 'Wireshark - Capture Options'. The 'Output' tab is selected. Under 'Capture to a permanent file', the 'File' is set to '/Users/davisroldanordonez/Universidad/lab1_22672.pcapng'. The 'Output format' is set to 'pcapng'. The 'Create a new file automatically...' checkbox is checked. There are four rules defined: 1) 'after 100000 packets', 2) 'after 5120 kilobytes' (which is currently selected), 3) 'after 1 seconds', and 4) 'when time is a multiple of 1 hours'. Under 'compression', 'None' is selected. The 'File infix pattern' is set to 'YYYYmmDDHHMMSS_NNNNN' (radio button selected). A checkbox for 'Use a ring buffer with 10 files' is checked. At the bottom right of the dialog are 'Close' and 'Start' buttons.

Análisis de paquetes



Congratulations! You've downloaded the first Wireshark lab file!

- a. ¿Qué versión de HTTP está ejecutando su navegador?

No observable directamente en esta captura porque el tráfico HTTP está cifrado (HTTPS). Probablemente HTTP/1.1 o HTTP/2).

- b. ¿Qué versión de HTTP está ejecutando el servidor?

No observable directamente sin descifrar TLS. Probablemente HTTP/1.1 o HTTP/2).

- c. ¿Qué lenguajes (si aplica) indica el navegador que acepta a el servidor?

Esta información viaja en el encabezado HTTP Accept Language, que también está cifrado en HTTPS.

- d. ¿Cuántos bytes de contenido fueron devueltos por el servidor?

4832 bytes fueron devueltos.

- e. En el caso que haya un problema de rendimiento mientras se descarga la página, ¿en qué elementos de la red convendría “escuchar” los paquetes? ¿Es conveniente instalar Wireshark en el servidor? Justifique.

Sí, puede ser conveniente instalar Wireshark o tcpdump en el servidor para ver si está recibiendo correctamente las solicitudes y cuánto tarda en responder, especialmente si no tienes acceso a la red intermedia.