

Lab#3 HTTP

This lab requires a “telnet” program to proceed. If you do not have it (under Windows), you may follow the instructions to install it.

<https://social.technet.microsoft.com/wiki/contents/articles/38433.windows-10-enabling-telnet.aspx>

Exercise 1-1: (2 pts/each)

1. Open Wireshark and select Capture → Options → your network interface (most likely Wi-Fi) → Start
2. In the main interface of the Wireshark, apply a display filter “**http**”
3. Open up a command prompt (execute **cmd** in Windows) or terminal (Linux/Mac)
4. Execute **telnet**
5. Under the command prompt (**Microsoft Telnet>** in Windows, **telnet>** in Linux/Mac), enter **open daemon.bradley.edu 80**
6. After that, enter the following commands (with an enter/carriage return at the end of each command) → **NOTE:** When you type in the following instructions, you may NOT see anything in the terminal. If so, just make sure that you type in everything correctly. If the connection failed due to bad request, just try it again!

GET / HTTP/1.1

Host: daemon.bradley.edu

7. Observe and record (copy & paste for Question 1 below) the *header part* of the output in the command prompt/terminal. Note: if you don’t know what is the “header”, check the RFC!

Question 1: What is the content of the returned header? Do you see 200 OK?

Question 2: What is the last modified date/time?

8. Save the Capture File to “http-capture” (keep the .pcapng suffix)
9. **Observation:** Compare the HTTP content you see in the capture file and the source code of the webpage. Are they the same?

Exercise 1-2: (2 pts/each)

1. Repeat the steps 1 to 5 in Exercise 1-1

2. Now, instead of entering the two commands in step 6 above, you enter only one command following by several enters

GET / HTTP/1.1

Host: ~~daemon.bradley.edu~~

Question 3: What is the **status code** you see this time in the command prompt/capture?
Do you still get 200 OK?

3. Save the Capture File to “http-no-host-capture” (keep the .pcapng suffix)
4. Now, repeat the steps above again and enter the following two commands

GET /abc.html HTTP/1.1

Host: daemon.bradley.edu

Question 4: What is the **code** you see this time in the command prompt/capture?
Do you still get 200 OK?

5. Save the Capture File to “http-err-capture” (keep the .pcapng suffix)

Upload your answers for the above questions and also the three capture files.

2 pts/each also for the capture files.