Computer Networks
Lab 1b

Wireshark Lab

Student Name: Phạm Ngọc Sang

Student No: 1813810

1. **List 3 different protocols that appear in the protocol column in the unfiltered packet-listing window in step 7 above.**

   Answer:

   HTTP
   TCP
   UDP

2. **How long did it take from when the HTTP GET message was sent until the HTTP OK reply was received? (By default, the value of the Time column in the packet listing window is the amount of time, in seconds, since Wireshark tracing began. To display the Time field in time-of-day format, select the Wireshark View pull down menu, then select Time Display Format, then select Time-of-day.)**

   Answer: 0.275717237(s)

3. **What is the Internet address of the gaia.cs.umass.edu (also known as wwwnet.cs.umass.edu)? What is the Internet address of your computer?**

   Answer:

   The Internet address of the gaia.cs.umass.edu : 128.119.245.12

   The Internet address of my computer: 192.168.0.107

4. **Print the two HTTP messages (GET and OK) referred to in question 2 above. To do so, select Print from the Wireshark File command menu, and select the "Selected Packet Only" and "Print as displayed" radial buttons, and then click OK.**

Answer:

```
No.    Time           Source             Destination        Protocol Length Info
      287 14:00:02,817653034 192.168.0.107      128.119.245.12     HTTP     544    GET /wireshark-labs/INTRO-wireshark-
file1.html HTTP/1.1
Frame 287: 544 bytes on wire (4352 bits), 544 bytes captured (4352 bits) on interface enp3s0, id 0
Ethernet II, Src: Dell_28:b1:46 (54:bf:64:28:b1:46), Dst: Tp-LinkT_fd:51:16 (f4:f2:6d:fd:51:16)
Internet Protocol Version 4, Src: 192.168.0.107, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 49926, Dst Port: 80, Seq: 1, Ack: 1, Len: 478
Hypertext Transfer Protocol
    GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n
        [Expert Info (Chat/Sequence): GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n]
        Request Method: GET
        Request URI: /wireshark-labs/INTRO-wireshark-file1.html
        Request Version: HTTP/1.1
    Host: gaia.cs.umass.edu\r\n
    Connection: keep-alive\r\n
    Upgrade-Insecure-Requests: 1\r\n
    User-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/89.0.4389.90 Safari/537.36\r\n
    Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/
signed-exchange;v=b3;q=0.9\r\n
    Sec-GPC: 1\r\n
    Accept-Encoding: gzip, deflate\r\n
    Accept-Language: en-US,en;q=0.9\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
    [HTTP request 1/2]
    [Response in frame: 291]
    [Next request in frame: 293]
```

```
No.    Time           Source             Destination        Protocol Length Info
      291 14:00:03,093370271 128.119.245.12     192.168.0.107      HTTP     504    HTTP/1.1 200 OK  (text/html)
Frame 291: 504 bytes on wire (4032 bits), 504 bytes captured (4032 bits) on interface enp3s0, id 0
Ethernet II, Src: Tp-LinkT_fd:51:16 (f4:f2:6d:fd:51:16), Dst: Dell_28:b1:46 (54:bf:64:28:b1:46)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.0.107
Transmission Control Protocol, Src Port: 80, Dst Port: 49926, Seq: 1, Ack: 479, Len: 438
Hypertext Transfer Protocol
    HTTP/1.1 200 OK\r\n
        [Expert Info (Chat/Sequence): HTTP/1.1 200 OK\r\n]
        Response Version: HTTP/1.1
        Status Code: 200
        [Status Code Description: OK]
        Response Phrase: OK
    Date: Thu, 18 Mar 2021 07:00:02 GMT\r\n
    Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.14 mod_perl/2.0.11 Perl/v5.16.3\r\n
    Last-Modified: Thu, 18 Mar 2021 05:59:01 GMT\r\n
    ETag: "51-5bdc94bcbc1a3"\r\n
    Accept-Ranges: bytes\r\n
    Content-Length: 81\r\n
    Keep-Alive: timeout=5, max=100\r\n
    Connection: Keep-Alive\r\n
    Content-Type: text/html; charset=UTF-8\r\n
    \r\n
    [HTTP response 1/2]
    [Time since request: 0.275717237 seconds]
    [Request in frame: 287]
    [Next request in frame: 293]
    [Next response in frame: 294]
    [Request URI: http://gaia.cs.umass.edu/favicon.ico]
    File Data: 81 bytes
Line-based text data: text/html (3 lines)
```