**Lab 4\_Wireshark**

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**Part 1**

**1. Is your browser running HTTP version 1.0 or 1.1? What version of HTTP is the server running?**

- Our browser and the server are running version 1.1 of HTTP.

(Image 1 and 2: Highlighted in Packet Details Pane)

**2. What languages (if any) does your browser indicate that it can accept to the server?**

- en-US and en (US English and Standard English)

(Image 3: Accept-Language in Packet Details Pane)

**3. What is the IP address of your computer? Of the gaia.cs.umass.edu server?**

- Computer: 10.5.204.226 (Image 4: Src in Packet Details Pane)

- Server: 128.119.245.12 (Image 4: Dst in Packet Details Pane)

**4. What is the status code returned from the server to your browser?**

- 200 (Image 5: Status Code in Packet Details Pane)

**5. When was the HTML file that you are retrieving last modified at the server?**

-Thurs, 27 February 2020 06:59:04 GMT (Image 6: Last-Modified in Packet Details Pane)

**6. How many bytes of content are being returned to your browser?**

- 128 bytes (Image 7: Content length in Packet Details Pane)

**7. By inspecting the raw data in the packet content window, do you see any headers within**

**the data that are not displayed in the packet-listing window? If so, name one.**

- No, all headers are there.

A screenshot of a social media post

Description automatically generated

Image 1

A screenshot of a social media post

Description automatically generated

Image 2

A picture containing screenshot

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Image 3

A screenshot of a social media post

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Image 4

A screenshot of a social media post

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Image 5

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Image 6

A screenshot of a social media post

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Image 7

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**Part 2**

**1. What is the IP address and TCP port number used by the client computer (source) that is**

**transferring the file to gaia.cs.umass.edu? To answer this question, it’s probably easiest**

**to select an HTTP message and explore the details of the TCP packet used to carry this**

**HTTP message, using the “details of the selected packet header window” (refer to Figure**

**2 in the “Getting Started with Wireshark” Lab if you’re uncertain about the Wireshark**

**windows.**

- Client IP: 10.5.204.226 (Image 1: Source in Packet List Pane)

- Client Port: 56258 (Image 1: Src Port in Packet Details Pane)

**2. What is the IP address of gaia.cs.umass.edu? On what port number is it sending and**

**receiving TCP segments for this connection?**

- Gaia IP: 128.119.245.12 (Image 1: Destination in Packet List Pane)

- Gaia Port: 80 (Image 1: Dst Port in Packet Details Pane)

**3. What is the IP address and TCP port number used by your client computer (source) to**

**transfer the file to gaia.cs.umass.edu?**

- Client IP: 10.5.204.226 (Image 2: Source in Packet List Pane)

- Client Port: 56258 (Image 2: Source Port in Packet Details Pane)

**4. What is the sequence number of the TCP SYN segment that is used to initiate the TCP**

**connection between the client computer and gaia.cs.umass.edu? What is it in the segment**

**that identifies the segment as a SYN segment?**

- Sequence Number: 152515 (Image 2: Sequence Number in Packet Details Pane)

- There is a specific bit in the sequence that acts as a flag specifying the segment as a SYN segment.

**5. What is the sequence number of the SYNACK segment sent by gaia.cs.umass.edu to the**

**client computer in reply to the SYN? What is the value of the Acknowledgement field in**

**the SYNACK segment? How did gaia.cs.umass.edu determine that value? What is it in**

**the segment that identifies the segment as a SYNACK segment.**

- Sequence Number: 1 (Image 3: Sequence Number in Packet Details Pane)

- Ack: 152961 (Image 3: Acknowledgement Number in Packet Details Pane)

- The SYN value of 1 indicates that gaia.cs.edu successfully received the request. The ACK number

comes from our original SYN number and adding the segment length (446) to it.

- There is a specific bit in the sequence that acts as a flag specifying the segment as a SYNACK segment.

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Image 1

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Image 2

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Description automatically generated

Image 3