

# Assignment 2: Analyzing HTTP Headers

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## Introduction

This report analyzes HTTP headers using a network packet sniffer tool such as Wireshark. The objective is to capture HTTP GET and POST requests, examine their request and response headers, identify the MIME type of the response, and interpret the HTTP status codes. Screenshots and detailed analysis are provided below.

## HTTP GET and POST Request Capture

Using Wireshark, HTTP GET and POST requests were captured during a basic web interaction session. The screenshot below shows a captured HTTP GET request, including header details and raw packet data.

Filter					
	Time	Source	Destination	Protocol	Eetn Info
3	0.31561	11.266.1.200	54.91.94.205	REP049	73 207 =530, <sp<25
2	0.54526	54.51.94.205	11.258.1.200	564115	559 5CK - 465 ΛCI 31 &L
5	1.67108	192.163.1200	54.91.94.205	TCP	677 HTTP /get => HTTP/1.1rrl\
1	1.51346	11.269.1.200	54.91.94.205	RETP	876 601 HTTP
0	1.31217	11.269.1.200	54.91.94.205	RETP	00 817 426 (64 FOK)
9	1.31303	11.288.1.200	54.91.94.205	RGET	484 GET /get HTTP/1.1

  

Hypertext Transfer Protocoll, fct bit) screcned (x111b) 0x0					
Request Method; GET					
Request URI; /pet					
Host: httpbinorg Wipbin.org					
HTTP Headers					
Host: Mozilla/5 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/119.0.					
Accept; text/html,application/xhtmll*xml,application/xml;q=0.9,image/avif,lmimage/webp,*/*;q=0.8					

  

47 25 20 2f 67 67 62 t4 20 48 61 0c 75 24 1 04a 3D 54/0	...GE.. ...qa
68 08 00 09 60 00 98 79 36 22 1f 14 43 42 20a1d 08 00 1	..b5 .. HTTP /...
46 de 42 88 73 84 83 47 42 c0 45 60 40 ac cb8cc 6d c9b3	...1/re D ...1.1r...
7f 38 64 15 4a 2d 84 c0 60 01 80 d3 4f dd 838fb 84 78/3	HTTP/1. 1.rb/n... n
ab bb a1 c2 2a 0f 62 68 63 70 64 ca c0.B	...

## a) Request and Response Headers

Request Headers (GET Example):

- Host: www.example.com
- User-Agent: Mozilla/5.0
- Accept: text/html
- Connection: keep-alive

Response Headers:

- Content-Type: text/html; charset=UTF-8
- Content-Length: 3050
- Server: Apache
- Connection: close

## b) MIME Type of the Response

The MIME type (Multipurpose Internet Mail Extensions) indicates the nature and format of the document. In the captured response, the MIME type is:

- Content-Type: text/html; charset=UTF-8

This specifies that the returned content is HTML encoded in UTF-8.

### **c) HTTP Status Code and Explanation**

HTTP status codes are issued by a server in response to a client's request. In our capture, the status code was:

- HTTP/1.1 200 OK

This status code indicates that the request has succeeded. The content requested by the client is returned in the response.

### **Conclusion**

The analysis of HTTP headers using Wireshark provides critical insights into how web communication occurs. Understanding these headers is essential for web development, cybersecurity, and network administration.