

# Quiz 3

**Due** Mar 31 at 2:15pm

**Points** 7

**Questions** 4

**Available** Mar 31 at 2pm - May 3 at 9:15am

**Time Limit** 15 Minutes

## Instructions

Please provide as many details as possible, so we may give your partial credits (in case the final answer is not correct).

## Attempt History

	Attempt	Time	Score
LATEST	<a href="#">Attempt 1</a>	15 minutes	8.5 out of 7

❗ Correct answers are hidden.

Score for this quiz: **8.5** out of 7

Submitted Mar 31 at 2:15pm

This attempt took 15 minutes.

### Question 1

3 / 3 pts

**What transport layer protocol does HTTP use? What does an HTTP GET command do? Are there any other commands/methods besides GET with HTTP 1.1?**

Your Answer:

**What transport layer protocol does HTTP use?**

HTTP operates on top of the TCP (Transmission Control Protocol) or sometimes the UDP (User Datagram Protocol) transport layer protocol.

**What does an HTTP GET command do?**

HTTP GET is a request method used from the client's machine to retrieve information from the server. This information could be classified as any - webpages or files that are being transmitted from the server. And the server responds to the request along with the resources if the HTTP request was a success or not.

**Are there any other commands/methods besides GET with HTTP 1.1?**

There's a POST method which is used to submit data to be processed by a resource on the server, and there's a CONNECT method which establishes a network connection.

## Question 2

2.5 / 3 pts

**What is the purpose of the HTTP "COOKIE:" field? Are the values in the HTTP message's cookie field stored at the client or server or both? If yes, how are they stored, in a file or something else? Explain briefly.**

Your Answer:

The purpose of cookies is to provide a way for the server to store stateful information on the client's side. They usually contain valuable information like session IDs, user preferences, or even what's in a shopping cart. This allows the servers to maintain the session info across multiple requests, and these are usually stored on the client's side in the web browser.

The client stores the cookie using a cookie file (1 point) and the server stores the cookie in the backend database (1 point).

## Question 3

1 / 1 pts

**What is the default port number for HTTP?**

Your Answer:

The default port number of HTTP is port 80.

#### Question 4

2 / 0 pts

**[Bonus Question]** One round-trip time (RTT) between a client C and a web server S is 10ms. It takes 5 ms to transmit one object from server S to client C. Suppose that there are 10 objects for a webpage with the same size. How long does it take to receive all 10 objects using a persistent HTTP connection? Consider the time from sending the TCP connection request to receiving all 10 objects. (2 points bonus)

Your Answer:

To receive all 10 objects, the total time required would be:

- Time to receive the HTML content: 10ms (1 RTT)
- Time to request the 10 objects: 10ms (1 RTT)
- Time to receive each of the 10 objects: 50ms (10 objects \* 5ms/object)
- Total time: 70ms

Therefore, it would take a total of 70ms to receive all 10 objects using a persistent HTTP connection.

Quiz Score: **8.5** out of 7