

Name: ___KEY_____ Section: _____

Unit 1 Ch2 Study Guide

Refer to notes, Code Studio Lessons & Code Studio videos to complete this Study Guide

Define:

1. **Router:** a computer which receives messages travelling across a network and redirects them towards their intended destinations based on the addressing information included with the message
2. **Packet:** Small chunks of information that have been carefully formed from larger chunks of information.
3. **Abstraction:** Reducing information and detail to focus on essential characteristics.
4. **IETF** develops and promotes voluntary Internet standards and protocols, in particular the standards that comprise the Internet protocol suite (TCP/IP).

What is the difference between these protocols? How are they related?

TCP/IP – sending and receiving all packets

HTTP- computers websites interact with each other. t describes how messages are formatted and interchanged, and how web servers respond to commands.

DNS – an abbreviation for Domain Name System, the Internet's system for converting alphabetic names into numeric IP addresses.

Who belongs to the IETF? A loosely organized collection of citizens and engineers who communicate mostly by email.

We learned that DNS (Domain Name Server) keeps track of Domain Names. Sometimes a Domain has a Subdomain - or a URL that links directly to a certain section of the website..

Ex: In Chesterfield, our sports website is www.ctaasports.org. If I want to see the soccer page, I go to the soccer subdomain: www.soccer.ctaasports.org.

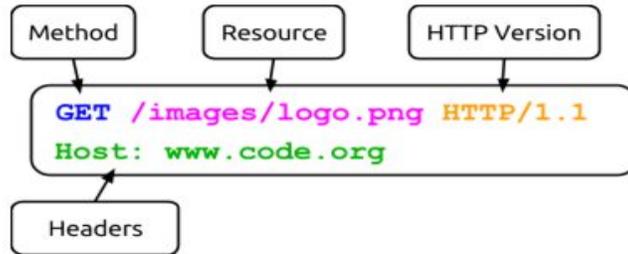
So, a subdomain has its own Name in the format "Subdomain.Domain"

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Explain the process that results when you type a web address into a browser and push enter: When you type a URL - your computer (client) asks the server for a website using HTTP. Get requests for the code to so your browser can display it.

HTTP Requests

When you type a URL in your browser, your computer (the client) needs to "ask" the server that is storing the data and images for the web page to return its contents so your browser can display it. To do so, your computer will send an ASCII-text message called an HTTP request. Here's what a simple HTTP request for the data of an image might look like:



- **Method:** An HTTP request will begin with a method, which indicates what the client wants the server to do. The two most common methods are:

Method	Description
GET	Requests a specified web page or other data
POST	Submits some data for the server to accept or process

- **Resource:** The name of the resource you wish to access. In the example above, the request is for a .png image called "logo" located in the folder "images."
- **HTTP Version:** An indication of the version of HTTP being used; in this example it is HTTP 1.1.
- **Headers:** Additional information included to help the server interpret the request. In the above example, "Host" is included, but many more can be added by placing them on additional lines.

What is IPv4?

Invented in 1973 – has more than 4 Billion unique addresses

What is IPv6?

128 bits to make more addresses

Why was IPv6 created?

The world needs more IP addresses