AP Computer Science Principles
Ticket Out the Door
Set 12: Web Protocols

Skill 12.01 Exercise 1

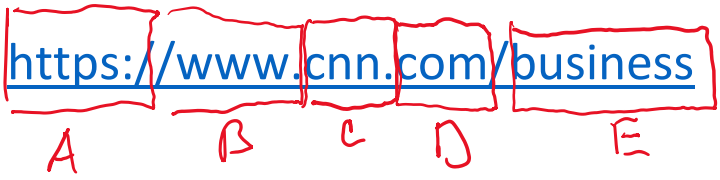
When you walked in, you were handed a slip of paper with an IP address on it. When instructed to do so, move around the room and try to complete an accurate list of IP addresses and names for all students in the room. You may only talk to one person at a time. Record these below,

Name	IP Address	Name	IP Address

Do you think the system we just simulated is an efficient way of collecting IP addresses? Are there any inefficiencies you observe? How could it be made better?

Skill 12.02 Exercise 1

Identify each part of the url below,



Identify each part of the url below,

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Skill 12.02 Exercise 2
https://whois.domaintools.com/ and type in a url. Note the name servers. What is the purpose of the name servers?

Skill 12.03 Exercise 1
What does HTTP stand for?

Skill 12.03 Exercise 2
Consider a "conversation" between you and a server. Indicate the steps your message takes on it is way to the server, then back to your computer. What information needs to be sent as part of your request, what information is returned?

Skill 12.03 Exercise 3
Use the links below to help you navigate to the Developer Tools of your browser. In Chrome, Internet Explorer and Firefox you'll need to **open the "Network" tab.** Chrome: https://developers.google.com/web/tools/chrome-devtools/ Internet Explorer: https://msdn.microsoft.com/library/bg182326(v=vs.85) Firefox: https://developer.mozilla.org/en-US/docs/Tools/Network_Monitor Safari: https://developer.apple.com/safari/tools/ (look at the "Network Requests" in the "Timelines" tab.) Navigate to a website and try to identify the following, • Total amount of data received • Number of HTTP requests actually generated by loading one page • Total time to load the page. • Types of data received through HTTP (it's more than just HTML)

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