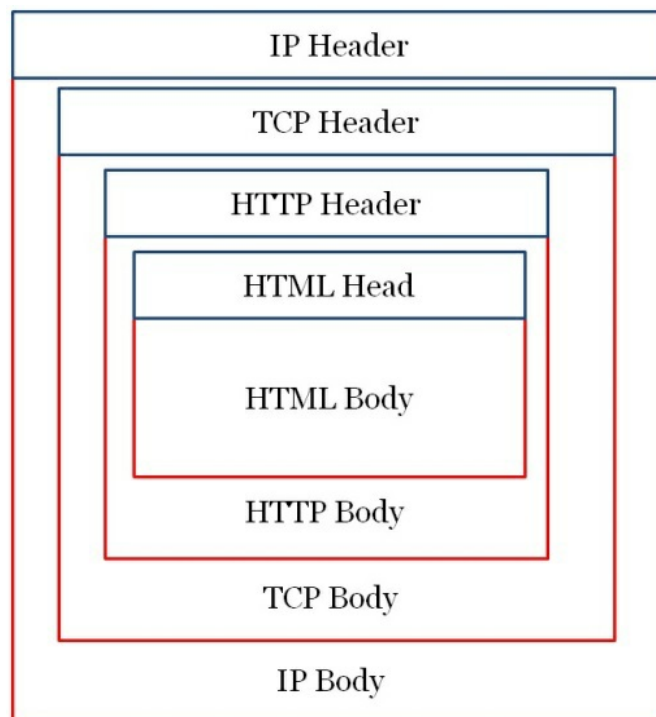


Activity 2.1.2.A.AK Your Favorite Web Page

Procedure

Part II: Request and Response

17. It is likely that you use http as your connection protocol most of the time. This protocol specifies what information the client and server will place in the body of the TCP packet, and how it will be formatted. The TCP packet is in turn contained within the body of an IP packet, and the HTTP packet contains as its payload the actual HTML code for a website. The image shown below is a diagram of this nested packet structure.



Why do you think it might take many packets to assemble a web page within your browser?

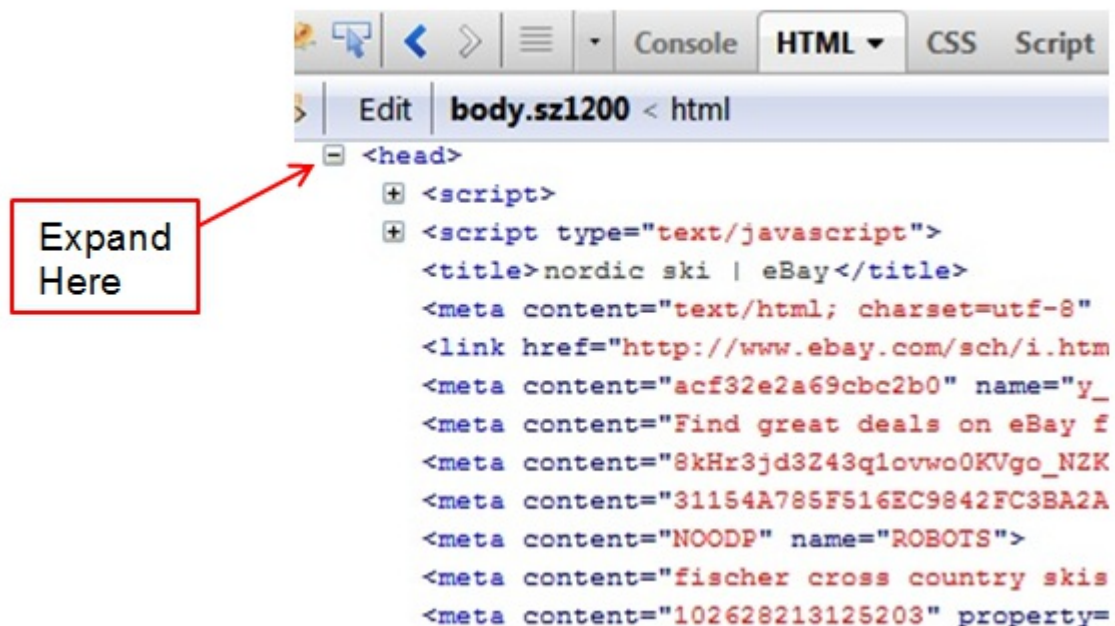
Part IV. What Web Pages Are Made Of

22. Web pages are written in Hypertext Markup Language (**HTML**). The HTML can include other languages, like Cascading Style Sheets (**CSS**) and **JavaScript**. You will learn a more about these languages in a later activity.

Web pages are rendered by the client machine's browser. Different browsers render the page different. They are configurable by the user. So neither the server nor the client look at the source code that was sent to the client to display this web page. Navigate back to ebay.com if you've left it. Select **Firefox > Web Developer > Page Source** (Ctrl-U). Firefox should create a new window filled with text. The text is the source code for the page. Use the Firefox "Find" tool (Ctrl-F) to search the text for word "meta" How many lines do you find that contain this word?



23. Switch from the Cookies tab to the HTML tab in Firebug and click on the + sign in the box next to the characters "<head>" in order to view the scripts and metadata for this site as shown below.



This displays the source code of the web page. For now we are interested only in the lines beginning with “<meta ...>”. Look at each of these lines to find the one that contains a list of key words separated by commas. These key words used to be used heavily by search engines to help determine their search results. Watch the following video and describe why Google chooses not to use these key words in determining their search results:

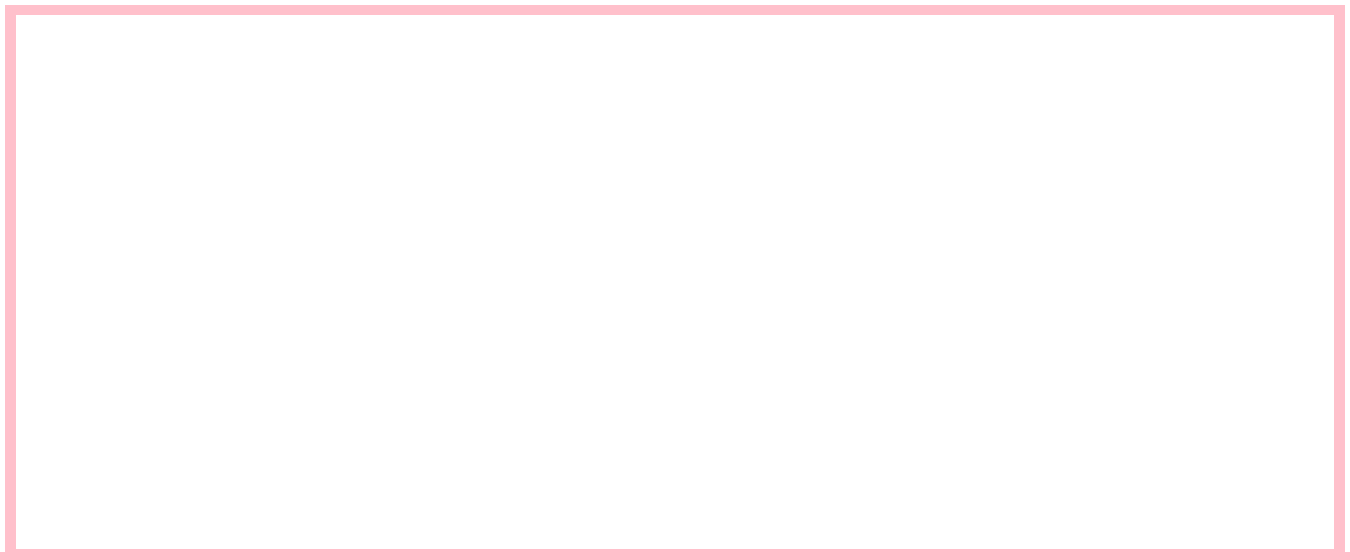
<http://www.youtube.com/watch?v=jK7IPbnmvVU>



24. Navigate to your favorite web page and use Firebug to examine it. Did you find any unexpected third-party cookies, and for what domains?

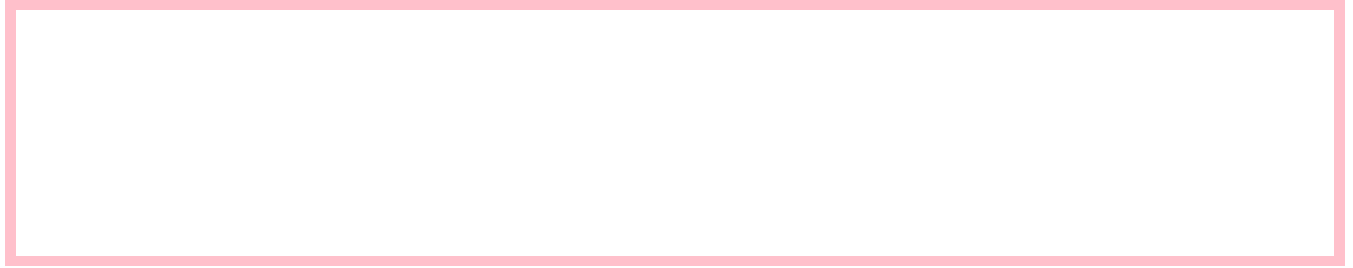


25. Web site designers can use many strategies to raise a web page's ranking in search engine results. Submit “search engine optimization” as a web search query to your favorite search engine. Examine the domain name of each search result's link. Note whether the search engine reports some links as **sponsored links** which are paid advertising. Skim the Wikipedia page to familiarize yourself with **search engine optimization**. Describe how companies can influence search results.



26. We will now use Firebug to revisit the question of accessibility for your website. One important design concern when developing a website is the ability of text-to-speech readers to process images. To this end, img tags in HTML have an “alt” property which can be used to provide alternate text to be displayed in the event that the image cannot be loaded or the user cannot see the image. On your favorite webpage (or another if yours has no images), mouse over parts of the HTML until an image appears highlighted in the browser as shown below. This should help you expand the code necessary to find the img tag and check to see if it has

alternate text. What site did you visit and what was the alternate text on the image if any? Was it sufficient to give a good idea of what the image that was placed there was to someone who could not see it?

A large, empty rectangular box with a thin pink border, occupying the upper half of the page. It is intended for a user to provide a response to the question above it.