18.1 Questions/Answers

* What is HTTP?

Hyper Text Transfer Protocol is governs how clients get data from, or send data to, a server.

* What is a URL?

Short for Uniform Resource Locator, a URL is an address for some internet resource.

* What is DNS?

Short for Domain Name System, this is a system that takes human-readable URLs and converts them into IP addresses.

* What is a query string?

The query string allows you to pass key-value pairs into the URL, in the format ?key1=value1&key2=value2...

* List two HTTP Verbs and their use cases.
  + GET - get some data from the server (most pages, search forms)
  + POST - send some data to the server (pages that change data on server)
* What is an HTTP request?

An HTTP request is a request from a client to a server which follows the HTTP protocol (eg a request for HTML from [news.google.com](http://news.google.com))

* What is an HTTP response?

An HTTP response is a response from a server to a client which follows the HTTP protocol (eg sending back HTML/CSS/JS/etc)

* What is an HTTP header? Give a couple examples of request and response headers you have seen.
  + Headers provide additional information about the request or the response. Here are some examples:
  + Request headers: Host, User-Agent, Accept, Cookie, Cache-Control
  + Response headers: Content-Type, Last-Modified, Set-Cookie, Cache-Control
* What happens when you type a URL in a browser?
  + Your browser “resolves” the name into an IP address using DNS
  + Your browser makes a request to that IP address, including headers (info about browser, any previous cookies, and other things)
  + The server sends a response (typically, HTML, with a status code (200 if it was sucessful)
  + The browser makes a DOM from that HTML, and finds any other resources needed (images, CSS, JavaScript, etc)
  + The browser makes separate HTTP requests for those resources and receives response from the server for each