Client Server

HTTP Request Response. Internet Basics

Why?

Client Server is the foundation of the whole internet, with a solid understanding of the way the internet works, we can truly understand what is happening, rather than just relying on tutorials or generators.

Servers

- Special computers connected directly to the Internet
- Web pages are files on that hard drive
- Domain names are simply aliases of the IP address

Clients

- Your computer is a client
- So is your phone.
- They are connected through an Internet Service Provider (ISP)

IP Address

- Everything connected directly or indirectly to the Internet has an IP address! (servers, computers, cellphones)
- Routers exist where two or more parts of the Internet intersect. They direct the packets around the Internet.
- 4(or 6) period separated numbers ranging from 0 to 255
  74.125.224.66

What happens when I hit enter?

- Does a DNS Lookup
- Find the IP address
- of a specific server
- sends an HTTP request

DNS Lookup

Maps a URL to a specific IP

try it out!
$ nslookup google.com
Then paste the IP address in your browser!

HTTP

- HTTP is stateless.
  - the current request does not know what has been done in the previous requests.
- HTTP permits negotiating of data type and representation.
  - this allows systems to be built independently of the data being transferred.

HTPP requests have at least 3 parts

- headers
- method
- uri

HTTP Request Headers

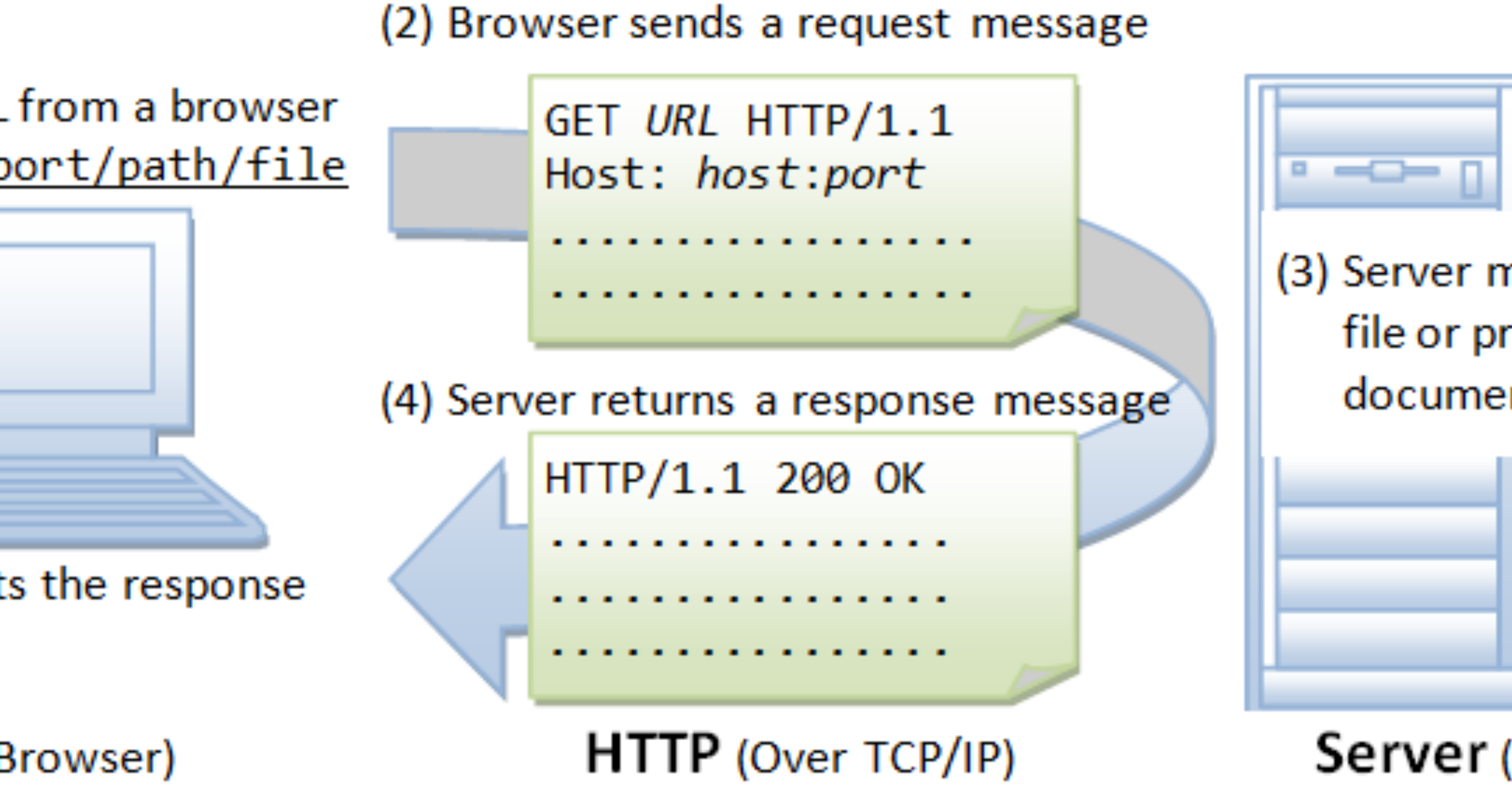
- What data you accept
- What data you want
- what browser you're on etc

HTTP Request Methods

- GET
- POST
- DELETE
- PUT

HTTP Response

- Response Code
  - 200 OK
  - 302 Found & redirect
  - 400 Bad request
  - 404 Not found
  - 500 Internal server error


(2) Browser sends a request message
L from a browser
port/path/file
GET URL HTTP/1.1
Host: host:port
.....
.....
(3) Server m
file or pr
docume
(4) Server returns a response message
HTTP/1.1 200 OK
.....
.....
.....
ts the response
Browser)
HTTP (Over TCP/IP)
Server (

Now what?

later today we’re going to be accessing data on the server from the client side by sending http requests using jQuery.