# How Web Works Exercise

# What is HTTP?

(Hyper Text Transfer Protocol) How browsers get data from/send data to servers. How they communicate.

What is a URL?

(Uniform Resource Locator) An address for internet resource.

What is DNS?

(Domain Name System) A system that takes URLs and turns them into IP addresses.

What is a query string?

A query string is a part of a uniform resource locator (URL) that assigns values to specified parameters.

List two HTTP Verbs and their use cases.

GET method- GETs some data from the server. Retrieves. No side effects (does not change server data)

Arguments are passed along in query string

POST method - send some data to the server (pages that change data on server)

Side effects (changes data on a server)

Arguments sent as a body of the request

What is an HTTP request?

A request from a client to a server which follows the HTTP protocol (a request for HTML)

What is an HTTP response?

A response from a server to a client which follows the HTTP protocol (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.

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?

1. Your browser converts the name into an IP address via DNS

2. Your browser makes a request to that IP address, including headers (info about browser, any previous cookies, and other things)

3. The server sends a response (typically, HTML, with a status code (200 if successful)

4. The browser makes a DOM from that HTML, and finds any other resources needed (images, CSS, JavaScript, etc)

5. The browser makes separate HTTP requests for those resources and receives response from the server for each