Part One: Solidify Terminology

What is HTTP?

HTTP is the communication between browsers and servers

What is a URL?

A URL is a website's address

What is DNS?

DNS changes domain names into IP addresses

What is a query string?

A query strings add parameters to search results

What are two HTTP verbs and how are they different?

Two HTTP verbs are Get and Post. Get allows you to access information without changing server information while Post makes changes to the server.

What is an HTTP request?

An HTTP request is something that a user submits to access something on a server

What is an HTTP response?

An HTTP response is the retrieval of the requested information

What is an HTTP header? Give examples:

A HTTP header is information shared with the browser and/or server.

Some requests headers that I've seen are: Request URL, Request Method, Status Code, Referrer, and Referrer Policy

Some response headers that I've seen are: accept-ranges, cache-control, date, age, content-length, content-type, and content-encoding

What are the processes that happen when you type http://somesite.com/some/page.html into a browser?

A lot happens. First the browser converts the URL into an IP address through DNS. Then, the browser sends a request to the website entered then it will receive information on that website and give a status code regarding if the site can be accessed or not. After that, there are a slew of linked references that the webpage has to retrieve, load, and apply any changes necessary with the new information.

Part Two: Practice Tools

1) Using **curl**, make a **GET** request to the icanhazdadjoke.com API to find all jokes involving the word "pirate"
2) Use **dig** to find what the IP address is for icanhazdadjoke.com
3) Make a simple web page and serve it using **python3 –m http.server**. Visit the page in a browser.

Part Three: Explore Dev Tools

Build a very simple HTML form that uses the GET method (it can use the same page URL for the action) when the form is submitted.

Add a field or two to the form and, after submitting it, explore in Chrome Developer tools how you can view the request and response headers.

Edit the page to change the form type to POST, refresh in the browser and re-submit. Do you still see the field in the query string? Explore in Chrome how you can view the request and response headers, as well as the form data.

Part Four: Explore the URL API

At times, it’s useful for your JavaScript to look at the URL of the browser window and change how the script works depending on parts of that (particularly the query string).