Part 1

**What is HTTP**: HTTP is a type of protocol that is used for communication between a web browser and a web server when sending requests for data. It, therefore, is essential to us being able to load websites and images over the world wide web. It is specifically hyper text transfer protocol.

**What is a URL:** a url stands for uniform resource locator. It is what were typing into a web browser to help us locate as well as load a web page. It contains a protocol for communicating with a web server such as HTTP or HTTPS or FTP. It also contains specifies a hostname, port, resource and if needed a query string at the end of the web address. These are all parts of information that the browser needs to get specific content from a server.

**What is DNS:** DNS in an acronym for domain name system. It is an essential bridge between a hostname and it’s associated IP address taking a URL and converting into a specific IP. This link between hostname and IP address is similar to a phone book which would associate a person or business with a specific number. Without any association between these the two pieces of information they lack the ability to be utilized. DNS is reliant upon servers that used to lookup a correlated hostname and IP address if local resources such as a cache, router or ISP fail to do so.

**What is a query string:** the query string is an addition piece of information on the backend of a URL and is part of a GET HTTP request. It is an optional component of the URL. It is used to provide additional arguments and information such as search terms. It usually begins with a question mark and multiple arguments are separated by an & sign. It passes key value pairs into the url directly! Key1=value1 & key2=value2

**What is an HTTP request:** this is a request where a web browser uses an HTTP protocol to get information from a web server to build a webpage.

**What is an HTTP Response**: it is the necessary data and meta data that fulfills the backend of the request containing the code needed to ultimately load the requested webpage. It also notably gives a code that specifies if the information was received and retrieved such as 404 page not found or code 200 giving the a-ok!

**What are two HTTP Verbs and how are they different:** two examples of HTTP verbs are GET and POST requests. They’re two different ways to request information. A get request is a request for information that will not impact the server that the information is requested from. Get requests are typically made when you type in an address of a url or click a link etc. A post request is one a type of request that updates the server often with new information. For example, saving data or posting something on a forum board. So GET-gets information from a server Post-Sends data to a server.

**What is an HTTP header:** headers provide additional information about the requests as well as responses from our browser to a web server and vice versa. They often contain meta-data to help specify content such as the language. Request headers: Host, User-Agent, Accept, Cookie, Cache-Control, or language

Response headers: Content-Type, Last-Modified, Set-Cookie, Cache-Control

**What happens when a url is types into a browser!** There are

Part 2

1. 1. Using ***curl***, make a ***GET*** request to the *icanhazdadjoke.com* API to find all jokes involving the word “pirate”

See screenshots below seems like there’s 5 jokes!

Text

Description automatically generated

Text

Description automatically generated

2. Ips are listed as so in screenshotText

Description automatically generated

3. Screenshot of website hosted on port 5501 on local host!

A picture containing text, screenshot, grass, screen

Description automatically generated