

1. Difference between HTTP1.1 vs HTTP2?

As opposed to **HTTP/1.1**, which keeps all requests and responses in plain text format, **HTTP/2** uses the binary framing layer to encapsulate all messages in binary format, while still maintaining **HTTP** semantics, such as verbs, methods, and headers.

2. HTTP version history?

Year HTTP Version

1991 0.9

1996 1.0

1997 1.1

2015 2.0

2020 3.0 (Draft)

3. List 5 differences between Browser JS vs Node JS?

S.NO	JavaScript	NodeJS
1.	Javascript is a programming language that is used for writing scripts on the website.	NodeJS is a Javascript runtime environment.
2.	Javascript can only be run in the browsers.	NodeJS code can be run outside the browser.
3.	It is basically used on the client-side.	It is mostly used on the server-side.
4.	Javascript can run in any browser engine as like JS core in safari and Spidermonkey in Firefox.	NodeJs can only run in V8 engine of google chrome.
5.	Javascript is used in frontend development.	NodeJs is used in server side development.

4. What happens when you type a URL in the address bar in the browser?

You enter a URL into a web browser. The browser looks up the IP address for the domain name via DNS. The browser sends a HTTP request to the server. The server sends back a HTTP response.

5. print all the country names in the console. Write

```
var data = JSON.parse(this.response);
for(i in data)
{
    console.log(data[i].name)
}
```

6. **A write up on Difference between copy by value and copy by reference.**

When you copy an object $b = a$ both variables will point to the same address. This behavior is called copy by reference value. Strictly speaking in Ruby and JavaScript everything is copied by value. When it comes to objects though, the values happen to be the memory addresses of those objects.

7. **How to copy by value a composite data type (array+objects).**

In Copy by value the data which variable hold is passed to another variable . Both the variables refers two different memory locations.

8. **Try the rest countries api. Extract and print the total population of all the countries in the console.**

```
var data = JSON.parse(this.response);
let sum = 0;
console.log(data.length);
for(let i in data)
{
    var a = data[i].population;
    sum = sum + a;
}
console.log(sum);
```