

GUVI - Day 01

TASK :

Write a blog on the Difference between HTTP1.1 vs HTTP2

HTTP :

HTTP, short for Hypertext Transfer Protocol, serves as the foundation for nearly all web applications. Its primary purpose is to facilitate the exchange of information between computers and servers. By employing HTTP, computers can effectively request and transmit data.

HTTP1.1	HTTP2
<p>HTTP 1.1 is the very basic version of HTTP</p> <p>In HTTP 1.1, each request made by the client requires a separate connection to the server.</p> <p>HTTP/1.1, which has been in use since 1999, operates on a request-response model.</p> <p>In HTTP/1.1, each request/response cycle required a separate connection to the server, resulting in increased latency and slower page load times.</p> <p>HTTP 1.1 allows the server to proactively send resources to the client before they are requested.</p> <p>It works in the textual format.</p>	<p>HTTP 2.0 offers significant performance improvements over HTTP 1.1</p> <p>HTTP 2.0, a single connection can handle multiple requests simultaneously</p> <p>HTTP/2.0. Released in 2015, HTTP/2.0 is a major upgrade from its predecessor.</p> <p>HTTP 2.0 introduces a feature called multiplexing, which allows multiple requests and responses to be sent over a single connection simultaneously.</p> <p>In HTTP 2.0, Server Push allows the server can send multiple resources in a single push, reducing network congestion and improving overall efficiency.</p> <p>It works on the binary protocol.</p>

About IP address, port, HTTP methods, MAC address

PORT

A port is like a special door that lets data in and out of a device connected to a network. Each door is labeled with a number that tells which kind of service or program is using it. For example, one door might be used for web browsing, another for email, and so on. By using different doors, many programs can work at the same time without getting mixed up. The doors make sure that data goes to the right program and doesn't get lost or confused.

IP address

An IP address is like a unique phone number for each device that's connected to a network. It's a way for devices to find and talk to each other. An IP address has four groups of numbers separated by dots, like 192.168.0.1. There are two types of IP addresses: IPv4 and IPv6. IPv4 is the most common and important type for devices to use on the Internet or a local network. It's like the address of a house or building, but for computers and other devices.

MAC address

A MAC address is like a special code built into a device's network card. It allows devices to recognize and communicate with each other on the same local area network. The code consists of six pairs of letters and numbers separated by colons, something like 00:1A:2B:3C:4D:5E. It's like a nameplate that is created by the device manufacturer and cannot be changed. MAC Addresses are unique and help identify devices on the network, but they're used only for local communication, not for connecting to the Internet.

Write a blog about objects and its internal representation in Javascript

Objects in JavaScript

JavaScript is an object-oriented programming language, which means it is built around the idea of objects. Objects are a collection of properties, and each property is a key-value pair. In JavaScript, objects can be created using the object literal notation, which is a set of curly braces that enclose a list of properties. In this example, we have created an object called `createobject` that has four properties (key): `name`, `Capacity`, `Mission`, `team`. The value as `peter`, `109.90`, `6`, `marvel`.

```
function createobject(){  
    let MarvelUniverse = {  
        name : "peter",  
        Capacity : 109.90,  
        Mission : 6,  
        team : "marvel"  
    };  
    console.log(MarvelUniverse)  
}  
createobject();
```

Internal Representation of Objects

Internally, JavaScript objects are represented as a collection of properties. Each property has a name and a value. The name of the property is always a string, and the value can be any data type, including another object. When you create an object in JavaScript, it is stored in memory as a reference to a location in memory where the object is actually stored. This reference is a unique identifier that allows you to access the object and its properties. When you access a property of an object, JavaScript looks up the property by name and returns its value. If the property does not exist, JavaScript returns `undefined`.

Conclusion

In conclusion, objects are a fundamental concept in JavaScript. They are a collection of key-value pairs that can be created and modified at runtime. Internally, objects are represented as a collection of properties that are stored in memory as a reference to a location in memory. Understanding how objects work in JavaScript is essential for writing effective and efficient code.

