**DAY 1**

1. Difference between HTTP1.1 vs HTTP2

In simple terms, the main difference between HTTP/1.1 and HTTP/2 is how they handle communication between your web browser and the server:

HTTP/1.1:

It sends and receives web data one piece at a time, like delivering one package at a time.

Imagine a mailman delivering letters one after the other, even if they are for different people. This can be slow and inefficient.

HTTP/2:

It can send and receive multiple pieces of web data simultaneously, like delivering several packages at once.

Think of a mailman who can carry multiple letters in one go and deliver them faster. This is more efficient and speeds up web page loading.

HTTP/2 also has other features like compressing data, prioritizing important items, and reducing the need for additional requests, making web pages load faster compared to HTTP/1.1.

1. Objects and its internal representation in Javascript

In JavaScript, an object is like a container that can hold data and functions related to a particular thing. It's a way to organize and store information.

Internally, objects in JavaScript are often implemented as key-value pairs, where each key is a name or identifier for a property, and the value can be any data (numbers, text, other objects, functions, etc.). It's similar to having a labeled box (the key) and putting something (the value) in that box.

For example, you can have an object representing a person:

```javascript

var person = { name: "John", age: 30, job: "Engineer"};```

In this object:

- `name` is a key, and "John" is the value associated with that key.

- `age` is a key, and 30 is the value.

- `job` is a key, and "Engineer" is the value.

You can access and modify the values in the object using the keys. For example:

```javascript

console.log(person.name); // This would output "John" person.age = 31; // Now the person's age is 31```

In simple terms, JavaScript objects are like containers with labeled compartments for storing different pieces of information.

1. IP address, port, HTTP methods, MAC address

Sure, here are simple explanations of IP address, port, HTTP methods, and MAC address:

1. \*\*IP Address\*\*:

- An IP address is like a home address for a device on the internet. It helps data find its way to the right place, just like your home address helps mail get to your house.

2. \*\*Port\*\*:

- A port is like a specific entrance at your home, such as the front door or a window. It's a door through which data can enter or leave a device. Ports are numbered to help different services on the same device know where to send data.

3. \*\*HTTP Methods\*\*:

- HTTP methods are like actions you can take with a web page. There are two main methods:

- \*\*GET\*\*: It's like asking for information from a web page, such as opening a book to read it.

- \*\*POST\*\*: It's like sending information to a web page, such as submitting a form with your name and email.

4. \*\*MAC Address\*\*:

- A MAC address is like a serial number for your device's network card. It's unique to your device and is used on local networks to identify devices, just like a serial number on a product helps identify that specific product.

I hope these simple explanations help you understand these concepts better!