JavaScript - Day -1: Introduction to Browser & web TASK

**1 Difference between HTTP1.1 vs HTTP2**

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| --- | --- |
| **HTTP1** | **HTTP2** |
| HTTP 1.1 was created in 1997 | HTTP 2 was created in 2015 |
| Slower loading | Prioritizes content during the loading process.  So, it’s faster in loading |
| No weighted prioritisation | Developer can control prioritisation on which page resource should be loaded first |
| HTTP/1.1 loads resources one after the other, so if one resource cannot be loaded, it blocks all the other resources behind it | HTTP/2 is able to use a single TCP connection to send multiple streams of data at once so that no one resource blocks any other resource. |
| server only serves content to a client device if the client asks for it. | HTTP/2 allows a server to "push" content to a client before the client asks for it. |
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|  |  |

**2 Objects and its internal representation in JavaScript**

Objects are important data types in JavaScript. Objects are different than primitive datatypes (i.e. number, string, boolean, etc.). Primitive data types contain one value but Objects can hold many values in form of Key: value pair. These keys can be variables or functions and are called properties and methods, respectively, in the context of an object.

Every object has some property associated with some value. These values can be accessed using these properties associated with them.

Eg:-

let student102 = {

name: ‘deva’,

age: 25,

classType: 'weekday',

language: 'tamil',

geekCoins: 5000,

runCode: 255,

percentage: 80.12,

isEligible: true,

codekata: {

string: [1, 2],

array: [3, 5],

}

}

**3 Codekata practice: -** Finished 50 codekata probs

**4 IP address**

An Internet Protocol (IP) address is a unique numerical identifier for every device or network that connects to the internet. Typically assigned by an internet service provider ([ISP](https://www.techtarget.com/whatis/definition/ISP-Internet-service-provider)), an IP address is an online device address used for communicating across the internet

**Port**

A port number refers to the type of addressing information that identifies the receiver as well as the sender of a message in computer networking. The primary use of different port numbers is to identify the protocol at which a network must direct the incoming traffic.

**HTTP method**

HTTP defines a set of **request methods** to indicate the desired action to be performed for a given resource. Although they can also be nouns, these request methods are sometimes referred to as *HTTP verbs*. Each of them implements a different semantic, but some common features are shared by a group of them

* GET
* POST
* PUT
* HEAD
* DELETE
* PATCH
* OPTIONS
* CONNECT
* TRACE

**MAC address**

* MAC address is the physical address, which uniquely identifies each device on a given network. To make communication between two networked devices, we need two addresses: IP address and MAC address. It is assigned to the NIC (Network Interface card) of each device that can be connected to the internet.
* It stands for Media Access Control, and also known as Physical address, hardware address, or BIA (Burned In Address).
* It is globally unique; it means two devices cannot have the same MAC address. It is represented in a hexadecimal format on each device, such as 00:0a:95:9d:67:16.
* It is 12-digit, and 48 bits long, out of which the first 24 bits are used for OUI (Organization Unique Identifier), and 24 bits are for NIC/vendor-specific.
* It works on the data link layer of the OSI model.
* It is provided by the device's vendor at the time of manufacturing and embedded in its NIC, which is ideally cannot be changed.
* The ARP protocol is used to associate a logical address with a physical or MAC address.