**Introduction to Browser & web**

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

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| **Sno** | **HTTP/1.1** | **HTTP/2** |
| **1** | There is head of line blocking that blocks all the requests behind it until it doesn’t get its all resources. | It allows multiplexing so one TCP connection is required for multiple requests. |
| **2** | It compresses data by itself. | It uses HPACK for data compression. |
| **3** | It works on the textual format. | It works on the binary protocol. |
| **4** | Binary protocol – No | Binary protocol - Yes |
| **5** | It uses requests resource Inlining for use getting multiple pages | It uses PUSH frame by server that collects all multiple pages |

**Write a blog about objects and its internal representation in JavaScript.**

1. **Objects in JavaScript**
   1. In JavaScript, objects are complex data types that allow you to store a collection of related data and functions, forming a key pillar of the language.
   2. Unlike primitive data types such as numbers or strings, objects can hold multiple values and methods, making them incredibly versatile. Objects can represent real-world entities in your code, providing a way to structure and organize information effectively.
2. **The Internal Representation of Objects**
   1. Internally, JavaScript objects are collections of key-value pairs. These key-value pairs are often referred to as properties. Properties can hold various data types, including primitive types, other objects, or even functions.
   2. Objects can be created using object literals, constructor functions, or class syntax in modern JavaScript.

**Read about IP address, port, HTTP methods, MAC address.**

1. **IP Address**
   1. An IP address is a numerical label assigned to each device connected to a computer network that uses the Internet Protocol for communication.
2. **Port**
   1. In networking, a port is a communication endpoint used in computer networks to identify a specific process or service running on a device. Ports are essential for managing multiple network services on a single host.
   2. Ports are identified by port numbers, which range from 0 to 65535. Certain port numbers are reserved for specific services, such as HTTP (port 80) and HTTPS (port 443).
3. **HTTP Methods**
   1. HTTP methods are used by web browsers and other applications to communicate with web servers.
   2. **Method types:**
      1. **GET:** Requests data from a specified resource.
      2. **POST:** Submits data to be processed to a specified resource.
      3. **PUT:** Updates a specified resource with new data.
      4. **DELETE:** Deletes a specified resource.
      5. **PATCH:** Partially updates a resource.
      6. **HEAD:** Requests headers that would be returned if a GET request was made.
      7. **OPTIONS:** Describes the communication options for the target resource.
4. **MAC Address**
   1. A MAC address is a unique identifier assigned to the network interface controller (NIC) of a device for communications on a network segment.
   2. MAC addresses are used in the data link layer of network protocols like Ethernet. Unlike IP addresses, which can change based on network configurations, MAC addresses are hardware-based and remain constant for the lifetime of the device.

**Ref Git:** https://github.com/reach2arunprakash/javascript-101/tree/master/ppt