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

* ***Introduction***

***The World Wide Web operates on a foundation of communication protocols, with HTTP (Hypertext Transfer Protocol) being one of the most fundamental. Over the years, HTTP has undergone significant transformations to meet the ever-evolving demands of the internet. Two of the most prominent versions are HTTP/1.1 and HTTP/2. In this blog post, we'll explore the key differences between these two versions to understand how they've revolutionized web communication.***

* ***Multiplexing:***

***HTTP/1.1 uses separate connections for each request, leading to slower page loads.***

***HTTP/2 allows multiple requests to be sent on a single connection, reducing latency and improving speed.***

* ***Header Compression:***

***HTTP/1.1 sends redundant header data with every request, causing overhead.***

***HTTP/2 employs header compression to reduce header size, improving efficiency.***

* ***Prioritization:***

***HTTP/1.1 lacks request prioritization, affecting resource loading order.***

***HTTP/2 supports stream prioritization for better resource loading control.***

* ***Server Push:***

***HTTP/1.1 doesn't have server push capabilities.***

***HTTP/2 allows servers to proactively send resources to the client, speeding up page loading.***

* ***Security:***

***HTTP/1.1 doesn't enforce encryption by default.***

***HTTP/2 often requires TLS encryption, enhancing security and privacy.***

* ***In summary:***

***HTTP/2 offers superior performance, efficiency, and security compared to HTTP/1.1, making it the preferred choice for modern web applications.***

**Write a blog about objects and its internal representation in Javascript**

**In JavaScript, objects are essential for organizing data and code. They can be created using object literals or constructors. Internally, objects store properties as key-value pairs, may have prototypes for property lookup, use hidden classes for optimization, and are managed by garbage collection for memory efficiency. Understanding object internals enhances your JavaScript coding skills.**

* **EXAMPLE:**

**const person = {**

**firstName: "SURYA",**

**lastName: "J",**

**age:23,**

**};**

**console.log(person);**

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

* **IP Address (Internet Protocol Address):**

**An IP address is a numerical label assigned to each device connected to a computer network.**

**It serves as an identifier for routing data packets across the internet or a local network.**

**IP addresses can be IPv4 (e.g., 192.168.1.1) or IPv6 (e.g., 2001:0db8:85a3:0000:0000:8a2e:0370:7334) format.**

* **Port:**

**Ports are used to differentiate between different services running on the same device or server.**

**They are 16-bit unsigned integers, allowing for a wide range of ports (0 to 65535).**

**Commonly used ports include 80 for HTTP, 443 for HTTPS, and 22 for SSH.**

* **HTTP Methods (Hypertext Transfer Protocol Methods):**

**HTTP methods define the actions that can be performed on resources identified by URLs.**

* **Common HTTP methods include:**

**GET: Retrieve data from a server.**

**POST: Submit data to be processed by a server.**

**PUT: Update or replace a resource on the server.**

**DELETE: Remove a resource from the server.**

**HEAD: Retrieve only the headers of a resource.**

**OPTIONS: Inquire about the communication options available for a resource.**

* **MAC Address (Media Access Control Address):**

**A MAC address is a unique hardware address assigned to a network interface controller (NIC) or network adapter.**

**It is used at the data link layer to identify devices within a local network.**

**MAC addresses are typically represented as a 12-digit hexadecimal number (e.g., 00:1A:2B:3C:4D:5E).**