**Question No : 1**

Write a blog on Difference between HTTP1.1 vs HTTP2

**Ans** :

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| **HTTP 1.1** | **HTTP 2** |
| * It was developed in the year 1997 | * It was developed in the year 2015. |
| * A text-based protocol uses plain text to encode and transmit data. | * It works on the binary protocol as a series of binary codes encode and transmit data rather than plain text. |
| * The client sends a request to a server, and the server sends a response back to the client. | * A different underlying [protocol called Secure](https://cheapsslweb.com/blog/an-ultimate-guide-on-secure-shell-protocol) Remote Protocol 2 (SRP2) establishes a secure connection between a client and a server. |
| * A separate connection is established for each request and response, which can add overhead and latency to the communication process. | * It allows multiplexing so multiple requests and responses can be sent over a single connection. |
| * HTTP 1.1 cannot handle buffer overflow vulnerabilities due to the lack of sufficient measures. | * HTTP 2 includes measures to prevent buffer overflow vulnerabilities. |
| * HTTP 1.1 does not include any in-built features, so the performance it delivers is less efficient. | * HTTP 2 is designed to be more efficient and performant than HTTP 1.1. This is because HTTP 2 includes several features like multiplexing, binary protocol and header compression. |
| * HTTP/1.1 provides faster delivery of web pages and reduces web traffic as compared to HTTP/1.0. However, TCP starts slowly and with domain sharding (resources can be downloaded simultaneously by using multiple domains), connection reuse and pipelining, there is an increased risk of network congestion. | * HTTP/2 utilizes multiplexing and server push to effectively reduce the page load time by a greater margin along with being less sensitive to network delays. |
| * Expands on the caching support by using additional headers like cache-control, conditional headers like If-Match and by using entity tags. | * HTTP/2 does not change much in terms of caching. With the server push feature if the client finds the resources are already present in the cache, it can cancel the pushed stream. |
| * It is relatively secure since it uses digest authentication, NTLM authentication. | * Security concerns from previous versions will continue to be seen in HTTP/2. However, it is better equipped to deal with them due to new TLS features like connection error of type Inadequate Security. |
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**Question No : 2**

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

**Ans** :

1. Objects, in JavaScript, are the most important data type and form the building blocks for modern JavaScript.
2. These objects are quite different from JavaScript’s primitive data types (Number, String, Boolean, null, undefined, and symbol) in the sense that these primitive data types all store a single value each (depending on their types).
3. Objects are more complex and each object may contain any combination of these primitive data-types as well as reference data-types.  
   An object, is a reference data type.
4. Variables that are assigned a reference value are given a reference or a pointer to that value Objects in JavaScript may be defined as an unordered collection of related data, of primitive or reference types, in the form of “key: value” pairs.
5. For Eg. If your object is a student, it will have properties like name, age, address, id, etc and methods like **updateAddress, updateNam,** etc.
6. Internally, JavaScript engines use various data structures to represent objects efficiently. One common approach is using a hash table or a similar structure to store the object’s properties and their corresponding values. This allows for fast access and manipulation of properties.

Internal Representation:  
{  
 name: "Sreeram K",  
 age: 22,  
 email: "sreeramuidesigner@gmail.com"  
}

1. An object method is an object property containing a function definition.

function(){return ignition.on}