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

Answer: HTTP (Hypertext Transfer Protocol) is a set of rules that runs on top of the TCP/IP suite of protocols and defines how files are to be transferred between clients and servers on the world wide web.

**HTTP/1.1 vs HTTP2**

HTTP2 Vs. HTTP1 is not a debate at all. HTTP2 is much faster and more reliable than HTTP1. HTTP1 loads a single request for every TCP connection, while HTTP2 avoids network delay by using multiplexing.

**HTTP 1.1**

HTTP/1.1 has been around for more than a decade. With Google’s SPDY leading the way in 2015, the IETF (Internet Engineering Task Force) gave us HTTP/2, which introduces several features to reduce page load times.

The concept of headers both for requests (from the client machine) as well as responses (from servers) was introduced. The use of headers such as GET, POST, HEAD added extended flexibility, none of which was possible with the earlier version. It allowed a single request/response for every TCP connection.

It was no longer required for each connection to be terminated immediately after every request was served with a response; instead, with the keep-alive header, it was possible to have persistent connections. It allowed multiple requests/responses per TCP connection.

The Upgrade header was used to indicate a preference from the client that made it possible to switch to a more preferred protocol if found appropriate by the server.

HTTP/1.1 provided support for chunk transfers that allowed streaming of content dynamically as chunks and for additional headers to be sent after the message body.

**HTTP 2**

At the beginning of 2010, Google introduced an experimental protocol, SPDY, which supported multiplexing (multiple requests/responses sent and received asynchronously over a single TCP connection) but as it gained traction IETF’s HTTP Working Group came up with HTTP/2 in 2015, which is based on the SPDY protocol.

HTTP/2 achieves faster webpage loading without performance optimizations that require extensive human efforts in terms of development. It significantly reduces the complexities that had crept into HTTP/1.1 and gives us a robust protocol which, though not without its flaws, will perhaps stand the test of time. Before making this leap forward, let’s trace our steps back to when the internet was in its infancy to understand how the different versions evolved into the current form.

It introduces the concept of a server push where the server anticipates the resources that will be required by the client and pushes them prior to the client making requests. The client retains the authority to deny the server push; however, in most cases, this feature adds a lot of efficiency to the process

Introduces the concept of multiplexing that interleaves the requests and responses without head-of-line blocking and does so over a single TCP connection.

HTTP/2 uses HPACK header compression algorithm that is resilient to attacks like CRIME and utilizes static Huffman encoding.

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

Answer:

Anobjectisacollectionofproperties, and a property is an association between a name (or key) and a value. A property's value can be a function, in which case the property is known as a method.

These objects are quite different from JavaScript’s primitive data-types(Number, String, Boolean, null, undefined and symbol) in the sense that while these primitive data-types all store a single value each (depending on their types).

An object, is a reference data type. Variables that are assigned a reference value are given a reference or a pointer to that value. That reference or pointer points to the location in memory where the object is stored. The variables don’t actually store the value.

A JavaScript object is basically a collection of unordered properties. Values associated with a JavaScript object are called its properties. Properties can usually be added, updated, and deleted, excluding read-only properties.

For-in – loops- This method traverses all of the enumerable string properties of an object as well as its prototype chain.

Object. Keys method-This method returns an array with only the enumerable own string property names ("keys") in the object my obj, but not those in the prototype chain.

Deleted method- You can remove a non-inherited property using the [delete](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Operators/delete) operator

Update method- It will be applicable for the key which is already present.

Insertion method-Here is a new key value will be added at the end of the line.