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

HTTP2 Vs. HTTP1 – Let’s Understand The Two Protocols

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. Let’s compare HTTP2 Vs. HTTP1.1 in detail.

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.

## Key Features of HTTP/1.0:

* 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.
* Version information was now included.
* It allowed a single request/response for every TCP connection.
* Status codes were used to indicate successful requests and to indicate transmission errors.
* The content-type header made it possible to send files other than plain HTML, including scripts and media.

Key Features of HTTP/1.1:

* 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. This enhancement was particularly useful in cases where values of a field remained unknown until the content had been produced. For example, when the content had to be digitally signed, it was not possible to do so before the entire content gets generated.
* Other features that reinforced its stability were introduced such as:
  + pipelining (the second request is sent before the response to the first is adequately served)
  + content negotiation (an exchange between client and server to determine the media type, it also provides the provision to serve different versions of a resource at the same URI)
  + cache control(usedto specify caching policies in both requests and responses)

**Difference between HTTP/1.1 and HTTP/2 are:**

| **HTTP/1.1** | **HTTP/2** |
| --- | --- |
| Ithe usest works on the textual format. | It works on the binary protocol. |
| 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. |
| It uses requests resource Inlining for use getting multiple pages | It uses PUSH frame by server that collects all multiple pages |
| It compresses data by itself. | It uses HPACK for data compression. |

Write a blog about objects and its internal representation in Javascript

Objects, in JavaScript, is it’s most important data-type and forms the building blocks for modern JavaScript. 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).

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. 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.

Loosely speaking, 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. These keys can be variables or functions and are called properties and methods, respectively, in the context of an object.

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.

var myCar = new Object();

myCar.make = 'Suzuki';

myCar.model = 'Altros';

myCar.year = 1978;

myCar.wheels = 2;

After creating myCar object, the value inside the object can be accessed using keys.

i.e.

myCar.year

Output: 1978

These values can be accessed using brackets notation also.

myCar.year

Output: 1978