FULL STACK DEVELOPMENT

DAY-1

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

The protocol controlling data transmission between servers and clients is vital in the fast-paced field of web development. The backbone of the internet for a long time was HTTP/1.1, but as speed and efficiency requirements have grown, so too have its limits. Now for HTTP/2, the newest version of the web protocol that has the potential to completely change how we browse the internet.

HTTP1.1:

HTTP1.1 has been the internet's backbone for more than two decades, serving billions of requests every day. However, its design, which is dependent on unique connections for each request and answer, has certain limitations. These connections can cause inefficiencies, such as head-of-line blocking, which occurs when a sluggish request causes future requests on the same connection to be delayed. Furthermore, the unencrypted nature of headers adds additional complexity, particularly for smaller requests, resulting in longer load times and worse performance.

HTTP 2:

HTTP 2 appears on the scene with an array of enhancements aimed at correcting the flaws of its predecessor. Multiplexing is important to HTTP/2, allowing numerous requests and answers to be overlapped over a single connection. This invention removes the need for several connections, resulting in much lower latency and increased efficiency. Furthermore, HTTP/2 implements header compression, which encodes headers in binary format to reduce cost, resulting in speedier communication between servers and clients.

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

In JavaScript, an object is a flexible data structure that contains related data and functions using keys and values. It is a basic building element for organising and managing data in web development. Objects may contain a wide range of data, including other objects, functions, arrays, and primitive values, allowing developers to quickly simulate complicated data structures. Objects provide flexibility and variety by having dynamic characteristics and the ability to add, alter, or delete properties at runtime, making them an important component of JavaScript programming.

Internally, JavaScript engines employ a technique known as hidden classes to organise and optimise how objects are kept in memory. When you build an object with certain properties, the engine assigns it a hidden class to help keep track of its structure. This allows the engine to easily access and alter properties. If you build another object with the same structure, it may reuse the hidden class, conserving memory and speeding up processes. However, if the object's structure changes dynamically, the engine's optimisation tactics may need to be adjusted, which might have an impact on speed. Overall, hidden classes improve JavaScript performance by organising objects in memory.