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

ANSWER:

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| OBJECTS | HTTP1.1 | HTTP2 |
| Binary format | it uses a text – based format to transmit data, which is easy for humans to read but difficult for machines to parse. | It uses a binary format, which is more efficient and faster for machines to parse. |
| Multiplexing | It uses a one to one connection between the client and the server, which means that only one request can be sent at a time. This leads to a phenomenon known as head-of-line blocking, where a single slow request can delay all other requests. | It uses a technique called the multiplexing, which allows multiple request to be sent over a single connection. this reduces latency and increases the overall speed of the connection. |
| Server push | It requires the client to send a request for each resources that it needs, even if the server knows in advance that the resources is required. This leads to extra requests and increased latency. | It introduces a new feature called server push, which allows the server to send resources to the client before the client requests them. This car save a lot of time and reduce the number of requests needed to load a webpage. |
| Header Compression | Headers are sent with every request and response, which can add up to a lot of data over time. | It introduces header compression, which reduces the amount of data sent with each request and response. This can save bandwidth and reduce the overall size of the data being transferred. |
| Security | Both http1.1 and http2 support same security mechanisms, such as SSL, TLS. | http/2 requires the use of SSL/TLS, which makes it more secure by default. |
| Usage | Still It is used widely. | http/2 will become the standard for web traffic in the future. |

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

ANSWER:

Objects in javascript:

In javascript, objects are a collection of key-value pairs, where the keys are strings and the values can be any valid javascript data type, including other objects. Objects are created using object literals, which are enclosed in curly braces {}.

Object types:

There are several types of objects in javascript.

1)Native objects:

Native objects are build–in- objects that are provided by the javascript runtime environment. Examples of native objects include ‘object’, ‘array’, ‘string’, ‘number’ and ‘boolean’.

2)Host objects:

Host objects are objects that are provided by the environment in which javascript is running. Example of host objects include ‘window’ and ‘document’ in a web browser, and ‘process’ in Node.js.

3)User-defined objects:

User-defined objects are objects that are created by the developer using object literals or constructor functions.

Object representation in memory:

In javascript, objects are represented in memory as a collection of key-value pairs. Each key-value pair is stored as a property in the object. When an object is created, a block of memory is allocated to store the object and its properties.

The object itself is represented as a pointer to this block of memory. When a property is accessed, the runtime looks up the property in the object’s property table and returns the corresponding value.

Conclusion:

Understanding the internal representation of objects in javascript is important for building efficient and maintainable code. By understanding how objects are represented in memory, you can optimize your code to reduce memory usage and improve performance.

In this blog, we’ve explored the different types of objects in javascript and how they’re represented in memory. With this knowledge, you’ll be better equipped to build complex applications using javascript’s powerful object-oriented features.