1. **write a blog on difference between HTTP1.1 vs HTTP2**

|  |  |
| --- | --- |
| **HTTP1.1** | **HTTP2** |
| **Binary protocol** | |
| Textual protocol, readable and interpretable by humans. | Binary protocol: efficient to parse, compact, less error-prone |
| **Multiplexing** | |
| Each transfer needs a new TCP connection or uses connection keep alive (one request/response at a time). | Multiple requests/response can be asynchronous over one TCP connection. Reduce latency |
| **Header compression** | |
| Headers are plain text, can be large. | Uses HPACK compression, reducing overhead especially for repetitive headers. |
| **Stream priortization** | |
| No builts-in mechanism for resource prioritization | Clients can specify request priority.Server can send important resources first. |
| **Server push** | |
| No push capability | Server can proactively send resources to the client’s cache before they are requested. |
| **Connection use** | |
| Browsers often open multiple TCP connections for parallel resource fetching. | A single multiplexed connection per origin, reducing the need for multiple connection. |
| **Flow control** | |
| Basic flow control using TCP | Enhanced flow control for individual streams, preventing a stream from monopolizing the connection. |
| **Connection handshake** | |
| Every new connection requires a handshake. | After the initial connection, additional streams don’t need a full SSL/TLS handshake. |
| **Improved security** | |
| HTTPS is optional. | Most implementations support or require encryption, promoting a more secure web. |
| **Reduced latency** |  |
| Can have latency issues due to head-of-line blocking and no multiplexing. | Multiplexing and priortization reduce latency. |

**2.Write a blog about objects and their internal representation in JavaScript.**

* Objects are important data types in JavaScript.
* It is non primitive datatypes.
* Primitive datatypes can hold one value, but objects can hold many values in the forms of keys.
* Objects in JavaScript are the most important data type and form the building blocks for modern JavaScript.
* Objects are more complex, and each object may contain any combination of these primitive data types as well as references datatype.
* An object is a reference datatype. variables that are assigned a reference value are given a pointer to that value.
* The pointer points to the location in memory where the object is stored. The variables don’t store the value.
* eg; var Mycar = new object();

Mycar.make=’suzuki’;

Mycar.model=’altros’;

* Some key features of object in java Scrips;
* Objects are dynamics; meaning we can add and remove properties from an object at any time.
* Objects are extensible; meaning we can create new types of objects by adding new properties and methods to existing objects.
* Objects are first-class; they mean we can pass objects to functions, return objects from functions and assign objects to variables.