Question1:

Write a blog on Difference between HTTP1.1 vs HTTP2

Answer:

HTTP stands for hypertext transfer protocol & it is used in client-server communication. By using HTTP user sends the request to the server & the server sends the response to the user. There are several stages of development of HTTP but we will focus mainly on HTTP/1.1 which was created in 1997 & the new one is HTTP/2 which was created in 2015.

HTTP/1.1: For better understanding, let's assume the situation when you make a request to the server for the geeksforgeeks.html page & server responds to you as a resource geeksforgeeks.html page. before sending the request and the response there is a TCP connection established between client & server. again you make a request to the server for image img.jpg & the server gives a response as an image img.jpg. the connection was not lost here after the first request because we add a keep-alive header which is the part of the request so there is an open connection between the server & client. there is a persistent connection which means several requests & responses are merged in a single connection. These are the drawbacks that lead to the creation of HTTP/2: The first problem is HTTP/1.1 transfer all the requests & responses in the plain text message form. The second one is head of line blocking in which TCP connection is blocked all other requests until the response does not receive. all the information related to the header file is repeated in every request.

HTTP/2: HTTP/2 was developed over the SPDY protocol. HTTP/2 works on the binary framing layer instead of textual that converts all the messages in binary format. it works on fully multiplexed that is one TCP connection is used for multiple requests. HTTP/2 uses HPACK which is used to split data from header. it compresses the header. The server sends all the other files like CSS & JS without the request of the client using the PUSH frame.

Difference between HTTP/1.1 and HTTP/2 are:

HTTP	HTTP/2
It 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.

Question 2:

Write a blog about objects and its internal representation in JavaScript

Answer:

Objects and its internal representation in javascript

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

The syntax for adding a property to an object is :

```
ObjectName.ObjectProperty = propertyValue;
```

The syntax for deleting a property from an object is:

```
delete ObjectName.ObjectProperty;
```

The syntax to access a property from an object is:

```
objectName.property

//or
```

objectName["property”]

//or

objectName[expression]
So, conclusion and simple definition for Java Script properties is “Properties are the values associated with a JavaScript object”.

Object methods

An object method is an object property containing a function definition.

i.e.,

Let’s assume to start the car there will be a mechanical functionality.

function(){return ignition.on}

and so similar is to stop/brake/headlights on & off, etc.
So, conclusion and simple definition for Java Script Object methods is “Methods are actions that can be performed on objects.”

Create JavaScript Object with Object Literal

One of easiest way to create a javascript object is object literal, simply define the property and values inside curly braces as shown below

let bike = {name: 'SuperSport', maker:'Ducati', engine:'937cc'};

Create JavaScript Object with Constructor

Constructor is nothing but a function and with help of new keyword, constructor function allows to create multiple objects of same flavor as shown below

```
function Vehicle(name, maker) {
  this.name = name;
  this.maker = maker;
}
let car1 = new Vehicle(’Fiesta’, 'Ford’);
let car2 = new Vehicle(’Santa Fe’, 'Hyundai’)
console.log(car1.name);    //Output: Fiesta
console.log(car2.name);    //Output: Santa Fe
```

Using the JavaScript Keyword new

The following example also creates a new JavaScript object with four properties:

```
var person = new Object();
person.firstName = “John”;
person.lastName = “Doe”;
person.age = 50;
person.eyeColor = “blue”;
```

Using the Object.create method

Objects can also be created using the Object.create() method. This method can be very useful, because it allows you to choose the prototype object for the object you want to create, without having to define a constructor function.

```
// Animal properties and method encapsulation
var Animal = {
  type: 'Invertebrates', // Default value of properties
  displayType: function() {  // Method which will display type of Animal
    console.log(this.type);
  }
};

// Create new animal type called animal1

var animal1 = Object.create(Animal);
animal1.displayType(); // Output:Invertebrates

// Create new animal type called Fishes
var fish = Object.create(Animal);
fish.type = 'Fishes';
fish.displayType();

// Output: Fishes
```