**Task 1-9th January,2020**

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**1)Difference between HTTP1.1 and HTTP2**

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| HTTP1.1 | HTTP2 |
| * 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. * It allowed multiple requests/responses per TCP connection. | * It is a binary protocol i.e. only binary commands in the form of 0s and 1s are transmitted over the wire. The binary framing layer divides the message into frames that are segregated based on their type * There is single TCP through which there are multiple requests/responses |

**2) HTTP version history**

* HTTP 0.9-1989-Initial version introduced by Tim Berners Lee during the proposal of World Wide Web.
* HTTP 1.0-1996-
* HTTP1.1 -1997-Pipelining introduced, Chunk reposes were supported
* HTTP/2-2015-Multiplexed and Binary protocol
* HTTP/3 will use QUIC instead TCP/TLS for the transport layer portion, still in implementation phase

**3.Difference between JavaScript and NodeJS**

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| JavaScript | Nodejs |
| JavaScript is a simple programming language which runs in any browser JavaScript Engine. | Node JS is an interpreter or running environment for a JavaScript programming language which holds libraries which can easily be accessed from JavaScript programming for better use |
| JavaScript is normally used for any client-side activity for one web application | Node JS mainly used for accessing or running any operating system for non-blocking operation |
| JavaScript runs in any engine like Spider monkey (FireFox), JavaScript Core (Safari), V8 (Google Chrome) | Node JS only run in a V8 engine which mainly used by google chrome. And JavaScript program which will be written under this Node JS will be always run in V8 Engine |
| JavaScript follows [Java Programming language](https://www.educba.com/java-programming-language-features/) standard. | Whereas node JS is [written in C++](https://www.educba.com/c-plus-plus-interview-questions/), and provide V8 engine base browser JavaScript running engine which helps us to run written JavaScript program in any browser environment. |
| For accessing any operating system specific non-blocking task JavaScript has some specific object but all of them are operating system specific. | Node JS is given utility to run some operating system specific non-blocking tasks from any JavaScript programming. It doesn’t have any operating system specific constant. |

**4) what happens when you type a URL in the address bar in the browser?**

Once we type the URL on the address bar, the following happens

* The browser looks for the IP address of the domain name in the DNS(Domain Name Server).
* The Browser initiates a TCP connection with the server.
* The browser sends an HTTP request to the server.
* The server handles the incoming request and sends an HTTP response.
* The browser displays the HTML content.