**Day-2 Task**

1. List 5 difference between Browser JS(console) v Nodejs
2. watch & summary 5 points -<https://www.youtube.com/watch?v=SmE4OwHztCc&ab_channel=JSConf>
3. To read -<https://stackoverflow.com/questions/5641997/is-it-necessary-to-write-head-body-and-html-tags>
4. Execute the below code and write your description in txt file
   1. typeof(1)
   2. typeof(1.1)
   3. typeof('1.1')
   4. typeof(true)
   5. typeof(null)
   6. typeof(undefined)
   7. typeof([])
   8. typeof({})
   9. typeof(NaN)
5. Read what is prototype
6. **List 5 difference between Browser JS (console) vs Nodejs**

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| **S.No** | **Javascript** | **NodeJS** |
| 1 | Javascript is a programming language that is used for writing scripts on the website. | NodeJS is a Javascript runtime environment. |
| 2 | Javascript can only be run in the browsers. | We can run Javascript outside the browser with the help of NodeJS. |
| 3 | It is basically used on the client-side. | It is mostly used on the server-side. |
| 4 | Javascript is capable enough to add HTML and play with the DOM. | Nodejs does not have capability to add HTML tags. |
| 5 | Javascript can run in any browser engine as like JS core in safari and Spidermonkey in Firefox. | V8 is the Javascript engine inside of node.js that parses and runs Javascript. |
| 6 | Javascript is used in frontend development. | Nodejs is used in server-side development. |
| 7 | Some of the JavaScript frameworks are RamdaJS, TypedJS, etc. | Some of the Nodejs modules are Lodash, express etc. These modules are to be imported from npm. |
| 8 | It is the upgraded version of ECMA script that uses Chrome’s V8 engine written in C++. | Nodejs is written in C, C++ and Javascript. |

1. **Question:watch & summary 5 points -** [**https://www.youtube.com/watch?v=SmE4OwHztCc&ab\_channel=JSConf**](https://www.youtube.com/watch?v=SmE4OwHztCc&ab_channel=JSConf)

**Summary points**:

1. we should always add <script> tag at the end of the <body> tag to prevent unknown behaviour and make the webpage load faster.
2. HTML tokenizer which takes HTML input and breaks it into tokens representing opening tags, attributes, closing tags. It reports those tokens without checking whether the sequence is a well-formed HTML document.
3. Rendering engine combines DOM+CSSOM ,style resolution. It is the actual representation of what will show on the screen, not a one to one mapping of html code.
4. Head ,script and title are not in the render tree as they are non-visual elements and nodes hidden via display: none.
5. Fast DOM preventing layout thrashing and most modern JS frameworks do this internally.

4. Execute the below code and write your description in txt file

* + 1. typeof(1)
    2. typeof(1.1)
    3. typeof('1.1')
    4. typeof(true)
    5. typeof(null)
    6. typeof(undefined)
    7. typeof([])
    8. typeof({})
    9. typeof(NaN)

**Answer:**

* Typeof(1), typeof(1.1) and typeof(NaN): Number , in JavaScript integer and float values consider as a number and typeof(NaN) is also number because the type of NaN , which stands for Not a Number is, surprisingly, a number. The reason for this is, in computing, NaN is actually technically a numeric data type
* Typeof(‘1.1’): String. JS consider everything inside double quotes or single quotation as a string
* typeof(true): Boolean: True and false comes under Boolean datatype
* typeof(undefined): The typeof undefined is the string "undefined" , it means a variable name has been reserved, but no value has been assigned to that reference yet
* typeof([]),typeof({}):Object. In JS we used object and arrays to represent list of homogeneous or heterogeneous elements. [] is used to declare array and {}used to define object hence they are object type.
* typeof(null): Object, null is used to signify an empty reference to an object.