1. List 5 difference between Browser JS(console) v Nodejs

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| --- | --- |
| Node | Browser |
| Node doesn't have a predefined "window" object because it doesn't have a window to draw anything. | "window" is a predefined global object which has functions and attributes, that have to deal with window that has been drawn. |
| "location" object is related to a particular url; that means it is for page specific. So, node doesn't require that. | "location" is another predefined object in browsers, that has all the information about the url we have loaded. |
| Node doesn't have "document" object also, cause it never have to render anything in a page. | "document", which is also another predefined global variable in browsers, has the html which is rendered. |
| Node has "global", which is a predefined global object. It contains several functions that are not available in browsers, because they are needed for server side works only. | Browsers may have an object named "global", but it will be the exact one as "window". |
| "require" object is predefined in Node which is used to include modules in the app. | Browsers don't have "require" predefined. You may include it in your app for asynchronous file loading. |
| In Node everything is a module. You must keep your code inside a module. | Module is not mandatory in client-side JavaScript, i.e. in browsers. |
| Node is headless. | Browsers are not headless. |
| Node processes request object. | Browsers processes response objects |

2) Readable task – completed

3) Watch & summary 5 points -<https://www.youtube.com/watch?v=SmE4OwHztCc&ab_channel=JSConf>

**How does browser work:**

* Parse HTML + Parse CSS will be combined to add physical structure to the website (text, images & colors). Parsing stands for correcting the data to machine readable format.
* Render / Frame tree: Render objects, styles, layers & line box. Aligning the content and visualizing the output on website.
* Layout – This includes adjusting font size, browser size, accessing properties via JS.
* Paint – Process of taking information from render tree and visual the output.
* Performance insight – Inline CSS, JS check

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

|  |  |
| --- | --- |
| i/p | o/p |
| typeof(1) | number |
| typeof(1.1) | number |
| typeof('1.1') | string |
| typeof(true) | boolean |
| typeof(null) | object |
| typeof(undefined) | undefined |
| typeof([]) | object |
| typeof({}) | object |
| typeof(NaN) | number |

Screenshot:

