Day 2 – Activities and their Answers

* List 5 differences between Browser JS(console) and Nodejs.

Ans:

|  |  |
| --- | --- |
| Browser JS (console) | NodeJs |
| * Javascript is a programming language that is used for writing scripts on the website. | * NodeJS is a Javascript runtime environment. |
| * Javascript can only be run in the browsers. | * We can run Javascript outside the browser with the help of NodeJS. |
| * It is basically used on the client-side. | * It is mostly used on the server-side. |
| * Javascript is capable enough to add HTML and play with the DOM. | * Nodejs does not have capability to add HTML tags. |
| * 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. |

* Watch and Summary 5 points-

[https://www.youtube.com/watch?v=SmE4OwHztCc HYPERLINK "https://www.youtube.com/watch?v=SmE4OwHztCc&ab\_channel=JSConf"& HYPERLINK "https://www.youtube.com/watch?v=SmE4OwHztCc&ab\_channel=JSConf"ab\_channel=JSConf](https://www.youtube.com/watch?v=SmE4OwHztCc&ab_channel=JSConf)

Ans:

From watching the above video link, I summarise these points:

* The website in a browser is loading is taught. With the following overall layout:

Parsing(html + css parsing)Render treelayoutPaint

* Parsing is the method where every line-by-line codes are read and gets validated. It takes place in both Html and CSS parsers. So the Html parser use the html codes and creates the DOM tree. And CSS parser creates the styles to be embedded in the html with the position.
* HTML and CSS are combined in Render tree, where it has 4 phases of trees like layers, objects, styles and line boxes.
* Then the Layout phase comes it computes where the elements will appear on the web page.
* Then painting phase comes into play where the bitmap images and other visualization oriented minor process are computed and displayed to the client.
* To Read the given link in the activities section regarding html-body-tags related article – Done.
* Execute the below code and write your description in txt file.

Ans:

After Executing the given codes in Guvi/IDE I got this Results:

|  |
| --- |
| 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 |

* What is prototype?

Ans:

* Prototypes are the mechanism by which JavaScript objects inherit features from one another.
* JavaScript is often described as a **prototype-based language** — to provide inheritance, objects can have a **prototype object**, which acts as a template object that it inherits methods and properties from.
* An object's prototype object may also have a prototype object, which it inherits methods and properties from, and so on. This is often referred to as a **prototype chain**, and explains why different objects have properties and methods defined on other objects available to them.