# 1).Difference between browser js and node.js :

**Browser js :**

* Browser.js is mainly used for client-side applications like validations on a web page or dynamic page display.
* We can say Browser.js is used for frontend while Node.js is used for backend applications.
* Browser.js runs any engine like Spider monkey (Firefox), JavaScript Core (Safari), V8 (Google Chrome) accordingly to the browser while Node.js runs in a V8 engine which is mainly used by google chrome.

**Node.js**

* Node.js has full system access i.e can read and write directly to the file system
* Node.js is headless i.e without any GUI while Bowsers are not headless.
* In Node.js everything is a module i.e it is mandatory to keep everything inside a module while moduling is not mandatory for browser javascript.

**2). Summary :” How does the browser actually render a website” :**

* We parse our CSS and HTML that creates a dom tree, dom tree converted into a render tree so the CSS and HTML combined.
* It actually 4 trees; the layers, line boxes, render objects and render styles so layout is a process.
* Where the element will appear on the pages, basic on its relationships to other element taking into access all the CSS.
* Then painting will actually produce an image of their layer, and it has the process that an complicated and the webpage as processed.
* When a web page is loaded the browser first reads the HTML text and constructs dom tree from it. Then it process the CSS whether that’s inline embedded or extended CSS.