1) Difference between JavaScript and Nodejs :

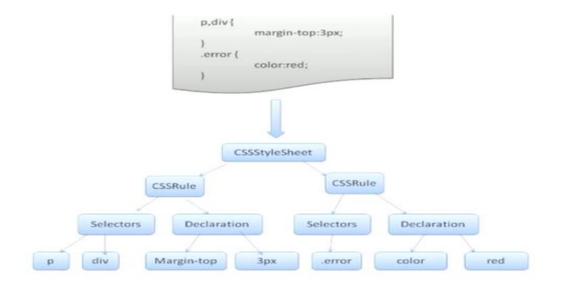| S.No	Javascript	NodeJS
1.	Javascript is a programming language that is used for writing scripts on the website.	NodeJS is a Javascript runtime environment.
2.	Javascript can only be run in the browsers.	We can run Javascript outside the browser with the help of NodeJS.
3.	It is basically used on the 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.

2) How does the browser actually render the website?

> ➢ **High Level flow:**

1. **Parsing Html –** Html is forgiving by nature. Parsing is not straight forward and can be halted. We can do spectacular parsing and it's reentrant.

2. **Parse CSS –**

3. **Render / Frame Tree –**

   DMO + CSSOM

   Combines the two object models, style resolution.

   Multiple Trees

   Render Objects

   Render Styles

   Render layers

   Lines boxes

   Not in the Render tree

   Non visual elements head, script, title etc.

   Nodes hidden via display:none;

4. **Layout –**

   Recursive process

   Traverse render trees

   Nodes position and size

   Layout its children

   Immediate layout

   Doing a font-size change will relay out the entire document

   Same with browser resize

   Accessing certain properties via JavaScript e.g. nodes.offsetHeight

5. **Paint –**

   Paint setup

   Will take the layed out render trees

   Creates layers

   Incremental process

   Builds up over 12 phases

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

Code:

```
const readline = require('readline');

const inp = readline.createInterface({

input: process.stdin

});

const userInput = [];

inp.on("line", (data) => {

userInput.push(data);

});

inp.on("close", () => {

console.log(typeof(1));

console.log(typeof(1.1));

console.log(typeof('1.1'));

console.log(typeof(true));

console.log(typeof(null));

console.log(typeof(undefined));
```

```
console.log(typeof([]));

console.log(typeof({}));

console.log(typeof(NaN));

});
```

Output:

```
number
number
string
boolean
object
undefined
object
object
number
```