Java VS Javascript

Java is a programming language, in which the	In Javascript the program is event
code will get executed sequentially.	driven, the execution of code is
	dependent on user action
Java is statically type, means the data type of	In javascript type of variables is
variable is decided at compile time	decided at run time, based on the
	value you have assigned to the
	variable
Java is Object oriented.	Javascript is object based.

To declare a variable in javascript, you can use keyword let, var and const

let	var	const
duplicate	duplicate declaration is	duplicate declaration is not
declaration is not	allowed	allowed
allowed		
let is a blocked	var is global or function	const is blocked scope
scope variable	scope variable	variable
hoisting of variable	hoisting of variable	histing of variable declaration
declaration is not	declaration is allowed	is not allowed
allowed		
let v;	var v;	const c=34;
		Initialization of variable is
		needed, at the time of
		declaration.

In client side javascript

- 1. Client side data validation is possible
- 2. Give dynamic look and feel to the page
- 3. AJAX(Asynchronous Javascript and XML) requests can be send by javascript, by using XmlHttpRequest(XHR) object

The Javascript code can be executed with the help of HTML, and is called as Client side javascript code.

Or it can be executed with the help of Nodejs, which is server side code.

To display popup boxes in javascript, there are 3 types of boxes, and all these functions are of window objects

Popup boxes	
alert	A box with only one ok button, useful to show messages to user
confirm	A box with 2 buttons ok and cancel, if user clicks on ok button then it returns
	true, otherwise, if user clicks on cancel button, then it returns false
prompt	A box with a text box, useful to accept one input from user

To display ouput to user in browser window, document.write("Hello world!!")

To display messages for testing purpose the use console.log("Test messages");

Ways to write functions

```
function using => operator, you may assign
    const f3=(x,y=3,...s)=>{//rest parameter
                                                 default values to parameters
      document.write("in f3",x,y,"<br>")
    f1(1,2,3,4)
    f2(1,2)
    f3(1,2,3,4)
function f1(x,...arr){
                                                 ... rest parameters and useful for variable
      document.write("in f1",x,"<br>");
                                                 number of arguments
      document.write("test:"
+arr.length,arguments[0]);
    }
const f2=function(x,y){
                                                 better to use const keyword while declaring
      document.write("in f2",x,y,"<br>");
                                                 function, so that definition will not get
                                                 overwritten
    //var f2=45;
    const f4=(x,y=45,z=4)=>{
      console.log(x,y,z);
   }
function f1(){
                                                 Closure function → the function which has
   function f2(){
                                                 access to its parent scope, is called as
                                                 closure function
   }
(function(x,y){
                                                 Self calling function, If you want to execute
   document.write("in function f1",x,y)
                                                 the function definition only once, then use
})(12,13)
                                                 self calling function
```

functions in javascript for typecasting

parseInt	to convert the string into integer
parseFloat	To convert the string into float

The tags which has innerHTML property- \rightarrow div, span, p, a,....

The tags which are not used to accept data from user via form, use innerHTML property but the tags which are used in the form to accept data from user has value property

functions on numeric data

isNaN(data)	if the data contains atleast one character, then it returns true, otherwise
	it returns flase

isFinite(data)	if the data contains all digits between 0-9, then it returns true, otherwise
	it returns false