



Frontend Assignment

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Course: Front End Development

Assignment-4 Web Designing (JavaScript Basic & DOM)

1) What is JavaScript?

Ans) JavaScript, often abbreviated as JS, is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS.

2) What is the use of isNaN function?

Ans) The JavaScript isNaN() Function is used to check whether a given value is an illegal number or not.

3) What is negative Infinity?

Ans) **NEGATIVE_INFINITY** is a special numeric value that is returned when an arithmetic operation or mathematical function generates a negative value greater than the largest representable number in JavaScript.

4) Which company developed JavaScript?

Ans) JavaScript was invented by **Brendan Eich** in 1995. It was developed for Netscape 2, and became the ECMA-262 standard in 1997.

5) What are undeclared and undefined variables?

Ans) Undefined variable means a variable has been declared but does not have a value. Undeclared variable means that the variable does not exist in the program at all.

6) Write the code for adding new elements dynamically?

Ans) **Syntax:** document.createElement("tagName");

7) What is the difference between ViewState and SessionState?

Ans) The basic difference between these two is that the **ViewState** is to manage state at the client's end, making state management easy for end-user while **SessionState** manages state at the server's end, making it easy to manage content from this end too.

8) What is === operator?

Ans) The strict equality (===) operator checks whether its two operands are equal, returning a Boolean result.

9) How can the style/class of an element be changed?

Ans) **getElementById()** method is used to return the element in the document with the "id" attribute and the "className" attribute can be used to change/append the class of the element.

10) How to read and write a file using JavaScript?

Ans) **readFile()** and **rs. writeFile()** methods are used to read and write of a file using javascript. The file is read using the fs. readFile() function, which is an inbuilt method.

11) What are all the looping structures in JavaScript?

Ans) for (expression 1; expression 2; expression 3) { // code block to be executed }
while(condition) { };
do{ }while(conditon).

12) How can you convert the string of any base to an integer in JavaScript?

Ans) In JavaScript `parseInt()` function (or a method) is used to convert the passed-in string parameter or value to an integer value itself.

13) What is the function of the delete operator?

Ans) The **delete operator** removes a property from an object. If the property's value is an object and there are no more references to the object, the object held by that property is eventually released automatically.

14) What are all the types of Pop up boxes available in JavaScript?

Ans) JavaScript has three kind of popup boxes:

- Alert box
- Confirm box
- Prompt box.
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15) What is the use of Void (0)?

Ans) In a programming language, void means return nothing. “javascript: void(0)” is similar to void. javascript: void(0) means return undefined as a primitive value. We use this to prevent any negative effects on a webpage when we insert some expression.

16) How can a page be forced to load another page in JavaScript?

Ans) Approach: We can use `window.location` property inside the script tag to forcefully load another page in Javascript.

17) What are the disadvantages of using innerHTML in JavaScript?

Ans) **Disadvantages of using innerHTML property in JavaScript:**

- **The use of innerHTML very slow:** The process of using innerHTML is much slower as its contents are slowly built, also already parsed contents and elements are also re-parsed which takes time.
- **Preserves event handlers attached to any DOM elements:** The event handlers do not get attached to the new elements created by setting innerHTML automatically. To do so one has to keep track of the event handlers and attach it to new elements manually. This may cause a memory leak on some browsers.
- **Content is replaced everywhere:** Either you add, append, delete or modify contents on a webpage using innerHTML, all contents are replaced, also all the DOM nodes inside that element are reparsed and recreated.
- **Appending to innerHTML is not supported:** Usually, += is used for appending in JavaScript. But on appending to an HTML tag using innerHTML, the whole tag is re-parsed.
- **Old content replaced issue:** The old content is replaced even if `object.innerHTML = object.innerHTML + 'html'` is used instead of `object.innerHTML += 'html'`. There is no way of appending without reparsing the whole innerHTML. Therefore, working with innerHTML becomes very slow. String concatenation just does not scale when dynamic DOM elements need to be created as the plus' and quote openings and closings becomes difficult to track.
- **Can break the document:** There is no proper validation provided by innerHTML, so any valid HTML code can be used. This may break the document of JavaScript. Even broken HTML can be used, which may lead to unexpected problems.
- **Can also be used for Cross-site Scripting(XSS):** The fact that innerHTML can add text and elements to the webpage, can easily be used by malicious users to manipulate and display undesirable or harmful elements within other HTML element tags. Cross-site Scripting may also lead to loss, leak and change of sensitive information.