

EXERCISE

1. What is this keyword in JavaScript?

The this keyword is a reference variable that refers to the current object. For example:

```
var address=
{
  company:"Javatpoint",
  city:"Noida",
  state:"UP",
  fullAddress:function()
  {
    return this.company+" "+this.city+" "+this.state;
  }
};
var fetch=address.fullAddress();
document.writeln(fetch);
```

2. How to validate email in JavaScript?

```
<script>
function validateemail()
{
  var x=document.myform.email.value;
  var atposition=x.indexOf("@");
  var dotposition=x.lastIndexOf(".");
  if (atposition<1 || dotposition<atposition+2 || dotposition+2>=x.length){
    alert("Please enter a valid e-mail address \n atpostion:"+atposition+"\n dotposition:"+dotposition);
    return false;
  }
}
</script>
<body>
<form name="myform" method="post" action="#" onsubmit="return validateemail();">
Email: <input type="text" name="email"><br/>

<input type="submit" value="register">
</form>
</body>
```

3. Why you should not use innerHTML in JavaScript?

innerHTML content is refreshed every time and thus is slower. There is no scope for validation in innerHTML. Therefore, it is easier to insert rogue code in the document and make the web page unstable.

4. How to use DOM and Events?

Using DOM, JavaScript can perform multiple tasks. It can create new elements and attributes, change the existing elements and attributes and even remove existing elements and attributes. JavaScript can also react to existing events and create new events in the page.

1. getElementById, innerHTML Example

getElementById: To access elements and attributes whose id is set.

innerHTML: To access the content of an element.

```
<html>
<head>
<title>DOM!!!</title>
</head>
<body>
<h3 id="one">Welcome</h3>
<p>This is the welcome message.</p>
<h3>Technology</h3>
<p>This is the technology section.</p>
<script type="text/javascript">
    var text = document.getElementById("one").innerHTML;
    alert("The first heading is " + text);
</script>
</body>
</html>
```

2. getElementsByTagName Example

getElementsByTagName: To access elements and attributes using tag name. This method will return an array of all the items with the same tag name.

```
<html>
<head>
<title>DOM!!!</title>
</head>
<body>
<h3>Welcome</h3>
<p>This is the welcome message.</p>
<h3>Technology</h3>
<p id="second">This is the technology section.</p>
<script type="text/javascript">
    var paragraphs = document.getElementsByTagName("p");
    alert("Content in the second paragraph is " + paragraphs[1].innerHTML);
    document.getElementById("second").innerHTML = "The original message is changed.";
</script>
</body>
</html>
```

Event handler Example

1. createElement: To create new element
2. removeChild: Remove an element
3. you can add an **event handler** to a particular element like this

```
document.getElementById(id).onclick=function()
{
    lines of code to be executed
}
```

OR

```
document.getElementById(id).addEventListener("click", functionname)
```

Example:

```
<html>
<head>
<title>DOM!!!</title>
</head>
<body>
<input type="button" id="btnClick" value="Click Me!!" />
<script type="text/javascript">
document.getElementById("btnClick").addEventListener("click", clicked);
    function clicked()
    {
alert("You clicked me!!!");
    }
</script>
</body>
</html>
```

5. What are the disadvantages of using innerHTML in JavaScript?

If you use innerHTML in JavaScript, the disadvantage is

- Content is replaced everywhere
- We cannot use it like “appending to innerHTML
- Even if you use +=like “innerHTML = innerHTML + ‘html’” still the old content is replaced by html
- The entire innerHTML content is re-parsed and builds into elements. Therefore, it’s much slower
- The innerHTML does not provide validation, and therefore we can potentially insert valid and broken HTML in the document and break it

6. What is the use of the blur function?

Blur function is used to remove the focus from the specified object.

7. How are DOM utilized in JavaScript?

DOM stands for Document Object Model and is responsible for how various objects in a document interact with each other. DOM is required for developing web pages, which includes objects like paragraphs, links, etc. These objects can be operated to include actions like add or delete. DOM is also required to add extra capabilities to a web page. On top of that, the use of API gives an advantage over other existing models.

8. What is DOM? What is the use of document object?

DOM stands for *Document Object Model*. A document object represents the HTML document. It can be used to access and change the content of HTML.

9. What is ‘this’ keyword in JavaScript?

‘This’ keyword refers to the object from where it was called.

10. How can the style/class of an element be changed?

It can be done in the following way:

```
document.getElementById("myText"). style. fontSize = "20";
                                or
document. getElementById ("myText"). className = "anyclass";
```

11. Write Methods of document object.

We can access and change the contents of document by its methods.

The important methods of document object are as follows:

Method	Description
write("string")	writes the given string on the document.
writeln("string")	writes the given string on the document with newline character at the end.
getElementById()	returns the element having the given id value.
getElementsByName()	returns all the elements having the given name value.
getElementsByTagName()	returns all the elements having the given tag name.
getElementsByClassName()	returns all the elements having the given class name.