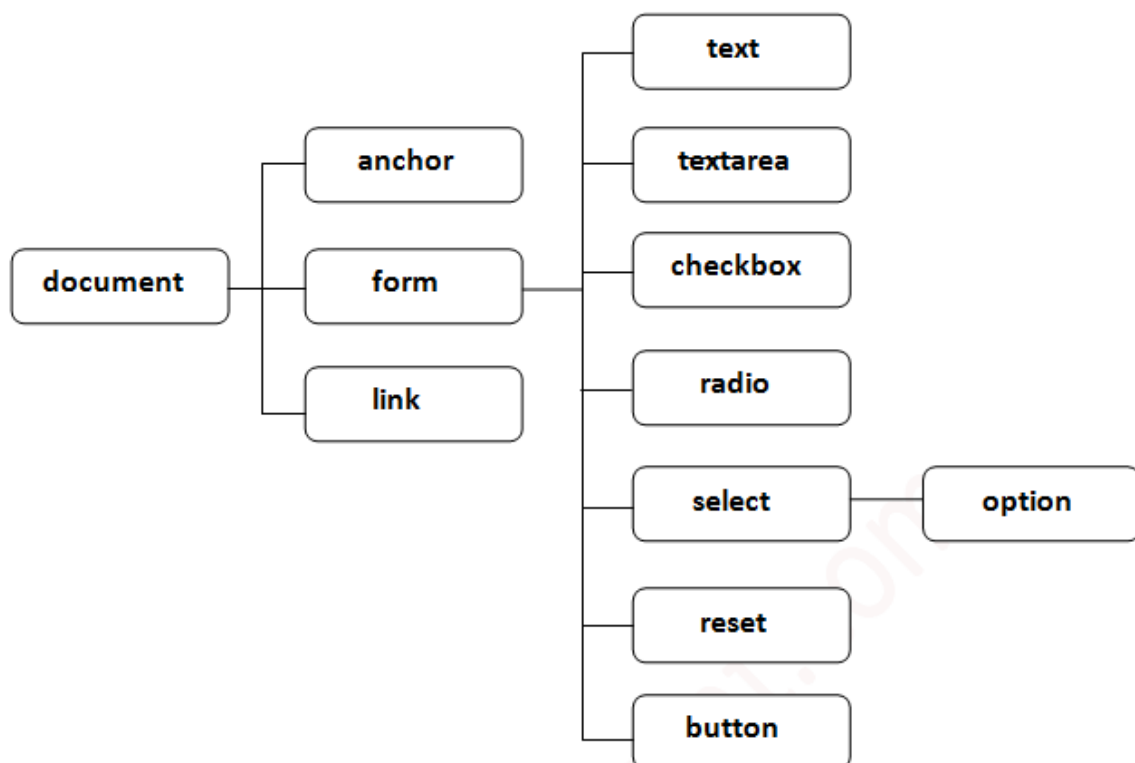


| Method | Description |
|-------------------|--|
| write("string") | writes the given string on the document. |
| writeln("string") | writes the given string on the document with newline character at the end. |
| getElementById() | returns the element having the given id value. |

Properties of document object

Let's see the properties of document object that can be accessed and modified by the document object.



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:

| | |
|---------------------------------------|---|
| <code>getElementsByName()</code> | returns all the elements having the given name value. |
| <code>getElementsByTagName()</code> | returns all the elements having the given tag name. |
| <code>getElementsByClassName()</code> | returns all the elements having the given class name. |

Why DOM is required?

HTML is used to structure the web pages and Javascript is used to add behavior to our web pages. When an HTML file is loaded into the browser, the javascript can not understand the HTML document directly. So, a corresponding document is created(DOM). DOM is basically the representation of the same HTML document but in a different format with the use of objects. Javascript interprets DOM easily i.e javascript can not understand the tags(<h1>H</h1>) in HTML document but can understand object h1 in DOM. Now, Javascript can access each of the objects (h1, p, etc) by using different functions.

Structure of DOM:

DOM can be thought of as a Tree or Forest(more than one tree). The term structure model is sometimes used to describe the tree-like representation of a document. Each branch of the tree ends in a node, and each node contains objects. Event listeners can be added to nodes and triggered on an occurrence of a given event. One important property of DOM structure models is structural isomorphism: if any two DOM implementations are used to create a representation of the same document, they will create the same structure model, with precisely the same objects and relationships.

Why called an Object Model?

Documents are modeled using objects, and the model includes not only the document's structure but also the document's behavior and the objects composed like tag elements with attributes in HTML.

Representation of the DOM

Window Object:

Window Object is object of the browser which is always at top of the hierarchy. It is like an API that is used to set and access all the properties and methods of the browser. It is automatically created by the browser.

Document object:

When an HTML document is loaded into a window, it becomes a document object. The 'document' object has various properties that refer to other objects which allow access to and modification of the content of the web page. If there is a need to access any element in an HTML page, we always start with accessing the 'document' object. Document object is property of window object.

Form Object: It is represented by form tags.

Link Object: It is represented by link tags.

Anchor Object: It is represented by a href tags.

Form Control Elements:: Form can have many control elements such as text fields, buttons, radio buttons, checkboxes, etc.

Methods of Document Object:

write("string"): Writes the given string on the document.

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.

```
<!DOCTYPE html>
<html>

<body>
  <h2>Qspiders</h2>

  <!-- Finding the HTML Elements by their Id in DOM -->
  <p id="intro">A Computer Science portal for Qspiders.</p>
  <p>This example illustrates the <b>getElementById</b>
```

```
method.</p>
  <p id="demo"></p>
  <script>
    const element = document.getElementById("intro");
    document.getElementById("demo").innerHTML =
      "Qspiders introduction is: " + element.innerHTML;
  </script>
</body>

</html>
```