



IE 4727 Web Application Design

JavaScript Basics

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JavaScript Basics

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Overview on JavaScript



- JavaScript is a high-level, dynamic, and interpreted programming language that is primarily known for its role in web development.
- Originally developed by Netscape and introduced as LiveScript in 1995, but it was soon renamed to JavaScript to reflect Netscape's support of Java technology.
- JavaScript is not Java, JavaScript is interpreted not compiled.
- JavaScript is loosely typed and flexible.
- JavaScript is not HTML, but JavaScript code can be embedded in an HTML document within HTML tags.

Role of JavaScript in web design



WHAT'S THE DIFFERENCE?



HTML

Hypertext Markup Language

Create the structure

- Controls the layout of the content
- Provides structure for the web page design
- The fundamental building block of any web page



CSS

Cascading Style Sheet

Stylize the website

- Applies style to the web page elements
- Targets various screen sizes to make web pages responsive
- Primarily handles the «look and feel» of a web page



Javascript

Increase interactivity

- Adds interactivity to a web page
- Handles complex functions and features
- Programmatic code which enhances functionality

```
<!doctype html>
<html>
<meta charset= "urf-8" >
<title> </title>
<script>document.write
( "<h1>Hello, World</h1>" )
</script>
</head>
<body>
</body>
</html>
```

Use of JavaScript

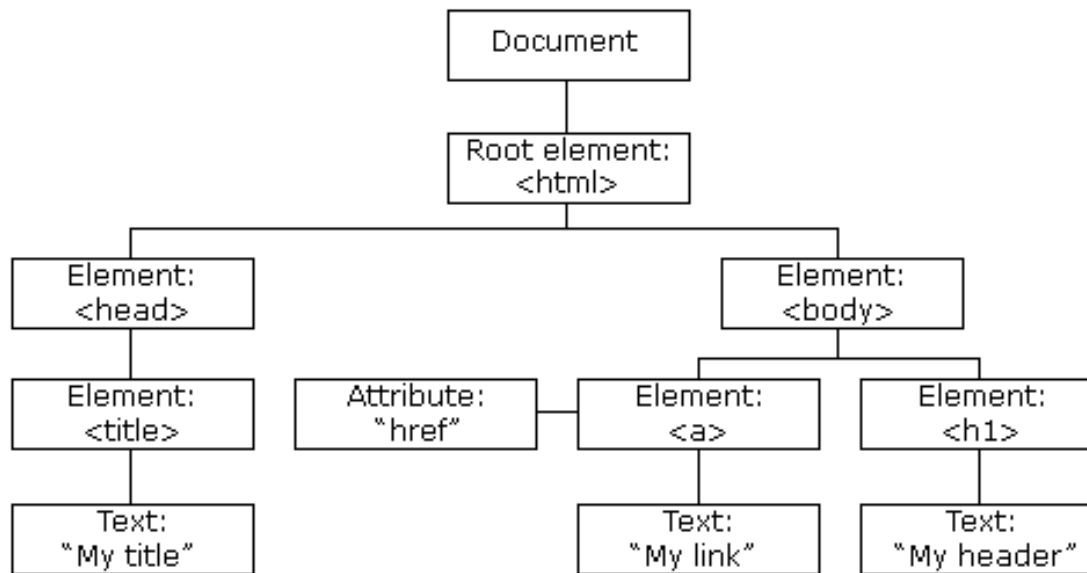


- JavaScript programs are used to detect and react to user-initiated events.
- JavaScript lets you interact with HTML elements.
- JavaScript lets you validate user's inputs in a form.
- JavaScript has string functions to validate e-mail addresses.
- JavaScript lets your web page comes alive!

The Document Object Model (DOM)



- The DOM model is constructed as a tree of objects and allows style of a document to be dynamically changes.
- All nodes in the tree can be accessed by JavaScript.



JS for Form Validation



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*Name:

*E-mail:

! Please include an '@' in the email address. 'hx1993126gmail.com' is missing an '@'.

*Experience:

Using JS to achieve
form validation

JS for Form Validation



```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>JavaJam Coffee House</title>
  <script type = "text/javascript" src = "CaseStudyPt3.js"></script>
```

1. Embed JS in HTML

```
function chkEmail(){
  var inputEmail = document.getElementById("JobEmail");
  var checkEmail = inputEmail.value.toString();
  const exp = /^[\\w.-]+@[\\w+\\.]{1,3}\\w{2,3}$/;
  if (!exp.test(checkEmail)){
    alert('Your email is not correct');
    inputEmail.focus();
    inputEmail.select();
    return false;
  }
  else return true;
}
```

2. Define validation criteria in JS file



Thanks



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