

# Javascript

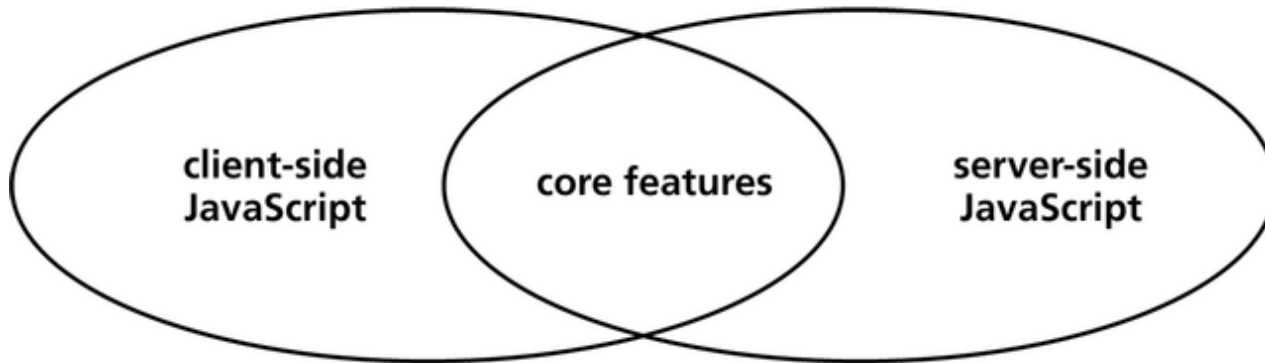
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# Javascript

- The JavaScript Programming Language
  - Scripting Languages
    - Executed by an interpreter contained within the web browser (scripting host)
    - Interpreter uses a scripting engine
      - Converts code to executable format each time it runs
      - Converted when browser loads web document

# Javascript

- The JavaScript Programming Language
  - JavaScript
    - Originally called LiveScript when introduced in Netscape Navigator
    - In Navigator 2.0, name changed to JavaScript



Two formats:

- Client-side

Program runs on client (browser)

- Server-side

Program runs on server

Proprietary to web server platform

# Why Javascript

- A popular scripting language widely supported in Web browsers and other Web tools, that adds interactive functions to HTML pages, which are otherwise static.
- Pop-Up Windows
- User Input Forms
- Calculations
- Special Effects

# Terms

- Object: Packaging data and functionality together into units within a running computer program; the basis of modularity and structure in an object-oriented computer program.
- Method: the processing that an object performs; when a message is sent to an object, the method is implemented.

- An HTML document with JavaScript can do stuff.
- A plain HTML webpage cannot.

# More Terms

- Events
- Variables
- Functions



Event: An action initiated either by the user or the computer.

- Variable: a place to store a value in computer memory.

- Function: a self-contained software routine that performs a task; the concept of a function within a program is that, once written, it can be used over and over again without the programmer having to duplicate the same lines of code in the program each time that same processing is desired.

# Define the function:

```
<SCRIPT>  
function MsgBox(textstring)  
{  
    alert(textstring);  
}  
</SCRIPT>
```

# Call the function:

```
<form>
```

```
<INPUT NAME="text1" TYPE=Text>
```

```
<INPUT NAME="submit" TYPE=Button  
  VALUE="Show Me"  
  onClick="MsgBox(form.text1.value)">
```

```
</form>
```

# All the code

```
<SCRIPT>
function MsgBox(textstring)
{
    alert(textstring);
}
</SCRIPT>
```

```
<html>
<body>
```

```
<h1>My Test Javascript</h1>
```

```
<p>My Test javascript</p>
```

```
<form>
<INPUT NAME="text1" TYPE=Text>
<INPUT NAME="submit" TYPE=Button VALUE="Show Me" onClick="MsgBox(form.text1.value)">
</form>
```

```
</body>
</html>
```

# Another example

```
<html>
<head>
<script type="text/javascript">
function show_confirm()
{
var r=confirm("Press a button");
if (r==true)
{
document.write("You pressed OK!");
}
else
{
document.write("You pressed Cancel!");
}
}
</script>
</head>
<body>

<input type="button" onclick="show_confirm()" value="Show a confirm box" />

</body>
</html>
```

# Browser detection

```
<html>
<body>
<script type="text/javascript">
var browser=navigator.appName;
var b_version=navigator.appVersion;
var version=parseFloat(b_version);
document.write("Browser name: "+ browser);
document.write("<br />");
document.write("Browser version: "+ version);
</script>
</body>
</html>
```



# Date

```
<html>  
<body>  
<script type="text/javascript">  
document.write(Date());  
</script>  
</body>  
</html>
```

# From validation

```
<html>
  <head>
    <script type="text/javascript">
      function validate_email(field,alerttxt)
      {
        with (field)
        {
          apos=value.indexOf("@");
          dotpos=value.lastIndexOf(".");
          if (apos<1||dotpos-apos<2)
            {alert(alerttxt);return false;}
          else {return true;}
        }
      }

      function validate_form(thisform)
      {
        with (thisform)
        {
          if (validate_email(email,"Not a valid e-mail address!")==false)
            {email.focus();return false;}
        }
      }
    </script>
  </head>

  <body>
    <form action="submit.htm" onsubmit="return validate_form(this);" method="post">
      Email: <input type="text" name="email" size="30">
      <input type="submit" value="Submit">
    </form>
  </body>
</html>
```