

Introduction to JavaScript



Topics



- What is JavaScript?
- Why JavaScript?
- Including JavaScript in HTML
- Hello World Example Script
- JavaScript Comments

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What is JavaScript?



- Created by Netscape
 - Originally called LiveWire then LiveScript
- A client-side scripting language
 - Client-side refers to the fact that it is executed in the client (software) that the viewer is using. In the case of JavaScript, the client is the browser.
 - A server-side language is one that runs on the Web server. Examples: PHP, Python, Perl
- Interpreted on-the-fly by the client
 - Each line is processed as it loads in the browser

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JavaScript is not Java



- Completely different types of languages that just happen to be similarly named
 - JavaScript - programs are interpreted in the browser
 - Java - programs are compiled and can be run as stand alone applications

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Why JavaScript?



- It's easier to learn than most programming languages
- It allows you to make interactive Web pages
- It can be fun!

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Including JavaScript in HTML



- Two ways to add JavaScript to Web pages
 - Use the `<script>...</script>` tag
 - Include the script in an external file -- more about this later in the semester
- Initially, we will only use the `<script>...</script>` tag

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Hello, World!

- Typically, in any programming language, the first example you learn displays "Hello, World!"
- We are going to take a look at a Hello World example and then examine all of its parts.

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Hello World in JavaScript

```
<!DOCTYPE html>
<html>
  <head>
    <title>Hello World Example</title>
  </head>
  <body>
    <script type="text/javascript">
      <!--
        document.write("<h1>Hello, world!</h1>");
      //-->
    </script>
  </body>
</html>
```

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Hello World Screenshot



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The <script>...</script> tag

- The code for the script is contained in the <script>...</script> tag

```
<script type="text/javascript">
  .
  .
  .
</script>
```

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Hiding JavaScript from Older Browsers

- Some older browsers do not support JavaScript
- We need to tell those browsers to ignore what is in the <script> tag

```
<script type="text/javascript">
  <!--
    some JavaScript code
  //-->
</script>
```

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Displaying text

- The document.write() method writes a string of text to the browser

```
<script type="text/javascript">
  <!--
    document.write("<h1>Hello, world!</h1>");
  //-->
</script>
```

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document.write()

```
document.write("<h1>Hello, world!</h1>");
```

Ends in a semicolon

Enclosed in quotes --
denotes a "string"

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Comments in JavaScript

- Two types of comments
 - Single line
 - Uses two forward slashes (i.e. //)
 - Multiple line
 - Uses /* and */

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Single Line Comment Example

```
<script type="text/javascript">
  <!--
    // This is my JavaScript comment
    document.write("<h1>Hello!</h1>");
  //-->
</script>
```

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Multiple Line Comment Example

```
<script type="text/javascript">
  <!--
    /* This is a multiple line comment.
     * The star at the beginning of this line is optional.
     * So is the star at the beginning of this line.
     */
    document.write("<h1>Hello!</h1>");
  //-->
</script>
```

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Find the Bug!

```
<script type="text/javascript">
  <!--
    /* This is my JavaScript comment
     * that spans more than 1 line.
     *
     */
    document.write("<h1>Hello!</h1>");
  //-->
</script>
```



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