

Javascript ES6

Lesson 1: Introduction to JavaScript



Lesson Objectives

To understand the following topics:
Basic Concepts of JavaScript
Embedding JavaScript in HTML
Writing JavaScript



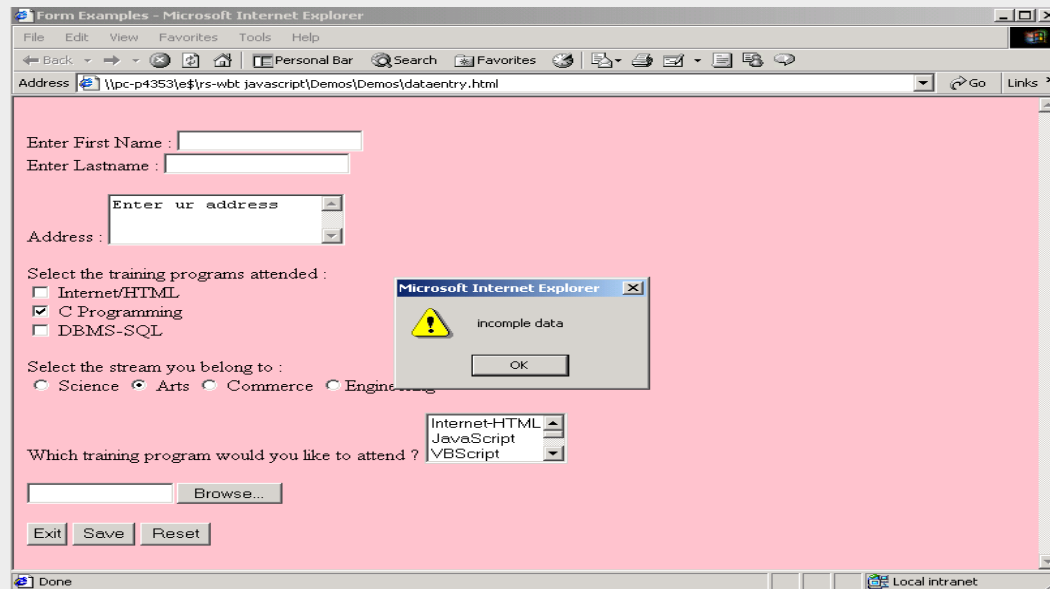


1.1: Basic Concepts of JavaScript

Basic Concepts of JavaScript

JavaScript is the scripting language of the Web

JavaScript is used for placing dynamic content into HTML page and for client side validation which cannot be performed with HTML 5 elements and attributes





1.1: Basic Concepts of JavaScript

Overview

JavaScript is Netscape's cross-platform, object-based scripting language

JavaScript code is embedded into HTML pages

It is a lightweight programming language

Client-side JavaScript extends the core language by supplying objects to control a browser and its Document Object Model

Server-side JavaScript extends the core language by supplying objects relevant to running JavaScript on a server



1.1: Basic Concepts of JavaScript

How does it work ?

When JavaScript code is inserted into an HTML document, and the HTML document is opened in a web browser:

The browser will read the HTML .

The JavaScript interpreter which is built-in within the browser interprets the JavaScript.

It executes the JavaScript immediately, or at a later event i.e could be based on user action or system event.



Why use JavaScript?

JavaScript:

- Provides HTML designers a programming tool
- Places dynamic text into an HTML page
- Reacts to events
- Reads and writes to HTML elements
- Can be used to validate form data.
- for validation not possible using HTML 5 elements and attributes



The `<SCRIPT>` tag

```
<SCRIPT>  
    JavaScript statements ...  
</SCRIPT>
```

- Specifying the JavaScript version

```
<SCRIPT LANGUAGE="JavaScript 1.2">
```



Embedding JavaScript in HTML(contd)

Hiding Scripts with Comment tags

```
<script type="text/javascript">  
  <!--  
      some statements ...  
  // -->  
</script>
```




Embedding JavaScript in HTML (Contd.)

- Using Quotation Marks

```
document.write("<A HREF='A.HTML'>Link to next page")
```

- Specifying alternate content with the NOSCRIPT tag

```
<NOSCRIPT>  
    Your browser has JavaScript turned off.  
</NOSCRIPT>
```

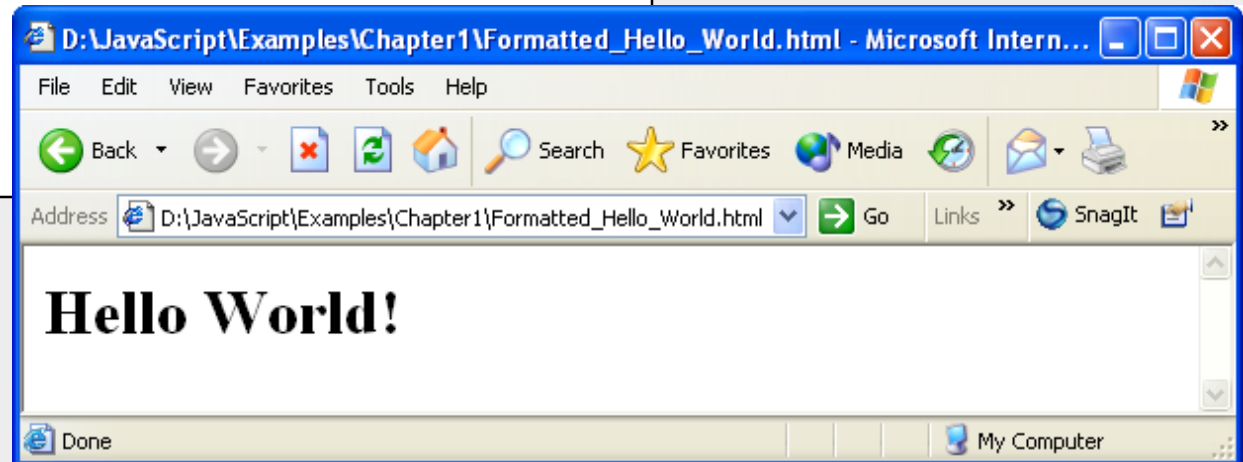


1.2: Embedding JavaScript in HTML

Embedding JavaScript in HTML (Contd.)

Including text-formatting features

```
<!DOCTYPE html>
<html>
<head> </head>
<body>
<script>
document.write("<H1>Hello World!</H1>")
</script>
</body>
</html>
```



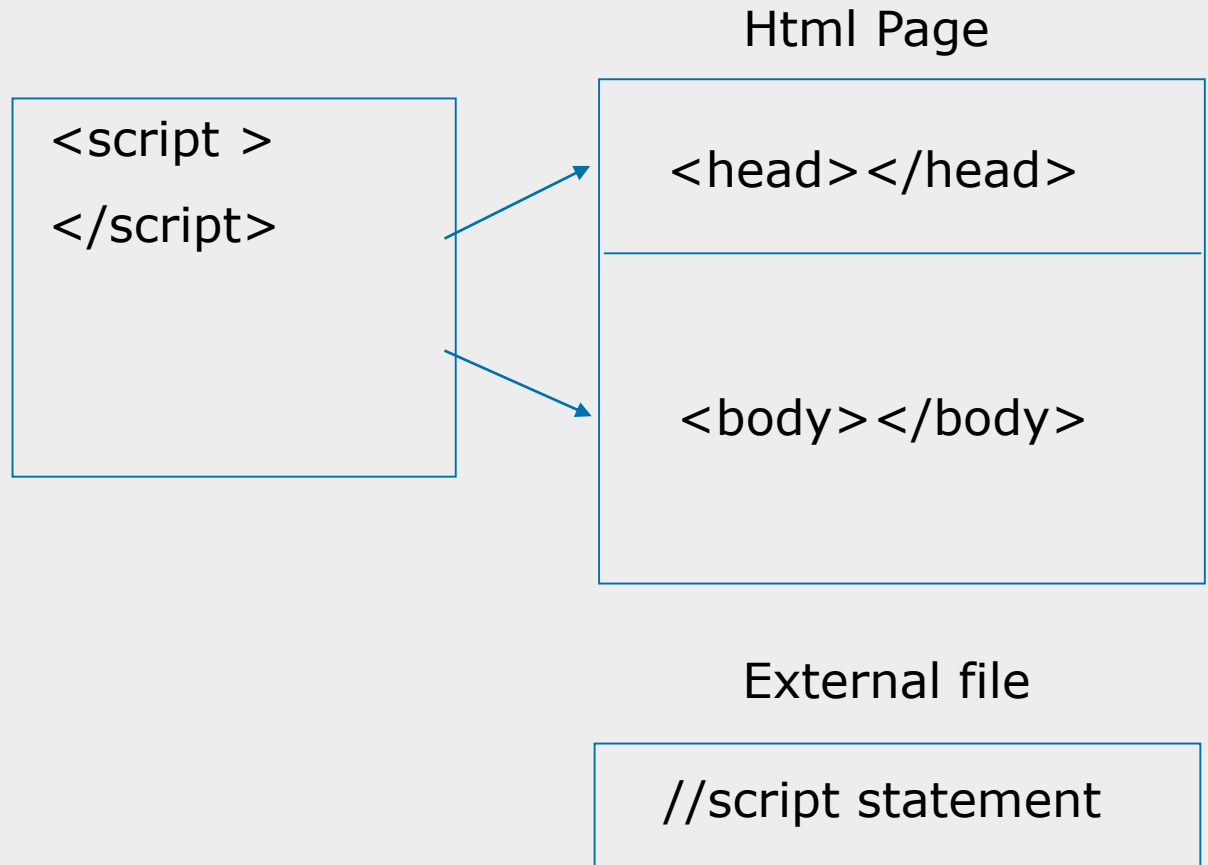


Where to write JavaScript?

Head Section

Body Section

External File





Syntax

```
<!DOCTYPE html>
<html>
<head>
<script type="text/javascript">
function message()
{
    alert("This alert box was called with the
        onload event")
}
</script>
</head>
<body onload="message()">
</body>
</html>
```



JavaScript in Body Section

Syntax

```
<!DOCTYPE html>
<html>
<head>
<title>script tag in body</title>
</head>
<body >
<script language="javascript">
    document.write("this message is
written when the page loads")
</script>
</body>
</html>
```



JavaScript in External File

- **Content of common.js**

```
var msg  
msg="<h1>declared in external js file</h1>"
```

- **HTML page using the external script file**

```
<!DOCTYPE html>  
<html>  
<head><title>script tag in external file</title>  
<script src="common.js">  
<!-- no javascript statements can be written here→  
</ script>  
</head>  
<body> <script>  
document.write("display value of a variable"+msg)  
</script> </body>  
</html>
```

Demo



Hello.html
Head_section.html
Extern_file.html
Comm.js
Var_ex.html



Lab



Lab 1:

- Basic concepts of JavaScript





Summary

JavaScript is the client side scripting language

When JavaScript code is placed inside a web page, the browser loads the page & the built-in interpreter reads the script & executes the same

JavaScript is used in Web pages for

- Validating client side data.
- Placing dynamic content into an HTML page.
- Storing client's information in the form of Cookies.





Review Question

Question 1: JavaScript, a scripting language, is:

- Option 1: Cross-platform, object-oriented
- Option 2: Cross-platform, object-based
- Option 3: Non cross-platform, object-oriented

Question 2: The `<SCR>` tag is an extension to HTML that can enclose any number of JavaScript statements.

- True/False

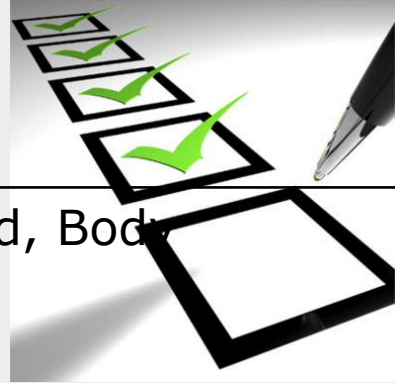
Question 3: HTML enclosed within a _____ tag is displayed by browsers that do not support JavaScript.





Review Question: Match the Following

1. Embed JavaScript in an HTML document as statements and functions within this tag
2. To specify alternate content for browsers that do not support JavaScript
3. Feature of JavaScript
4. JavaScript can be written in these sections

1. <code><NOSCRIPT></code>

2. Head, Body
3. <code>SCRIPT</code>
4. To validate and process user data