Introduction to JavaScript

JavaScript is a high-level language that is interpreted - translated into machine language at the time of usage (run-time)

JavaScript allows for dynamic, real-time changes to the web page the user is accessing. The user causes an “event” (e.g., moving the mouse to press a button) and the programmer can use JavaScript to program a response.

JavaScript was developed by Netscape as a web programming language.

Characteristics of the language:
- allows interactive content on a Web page.
- client based (works on the user machine).
- does not manipulate files.
- does not carry out graphics.

Important Issues for JavaScript:
- the instructions are written in lowercase.
- all instructions must be spelled correctly or the interpreter will not understand them.
- parts of an instruction must be separated by a space and not run together.
- the correct punctuation must be used.
Overview of JavaScript

JavaScript alert(“string”) function:
The alert function requests that the browser pop-up a small window that contains the words in the string.

Inserting JavaScript into a Web page:
<script language="JavaScript" type="text/javascript">
alert(“your message goes here”);
</script>

JavaScript prompt(“string”) function:
<script language="JavaScript" type="text/javascript">
var mytext = prompt(“Please enter some text”);
alert(mytext);
</script>

Static write to a window:
<script language="JavaScript" type="text/javascript">
window.document.write(“This is a statement”);
</script>

alternate version:
<script language="JavaScript" type="text/javascript">
document.write(“This is a statement”);
document.bgColor = “yellow”;
document.fgColor = “blue”;
</script>

JavaScript confirm() method:
var reply = confirm(“Do you like this color?”);
document.write("Your answer was " + reply);
Mouse Events:
OnMouseOver Event Handler:
- The user moves the mouse over a particular part of the Web page.
- First, the programmer has to define the part of the Web page to be monitored.
- If the user has moved the mouse there, the program will detect this and react in some way.

    <a href = "#"
        onMouseOver = "document.bgColor = 'red'; return true"
    >
        Watch me!
    </a>

Note: two levels of quotes are needed.

OnMouseOut Event Handler:
- The user moves the mouse away from the referenced part of the Web page.
- The program will detect this and react.

    <a href = "#"
        onMouseOver = "document.bgColor = 'red'; return true"
        onMouseOut = "document.bgColor = 'white'; return true"
    >
        Watch me!
    </a>

Button Events:
user clicks on a button - invokes an event handler.