The Web Wizard's Guide To JavaScript

Chapter 2
Enhancing Web Pages with JavaScript
Chapter Objectives

• To understand the role of sequence in programming
• To learn how to use loops
• To learn how to use conditional branching
• To learn how to place JavaScript code into your HTML documents
• To learn how to create external libraries of code you use often
• To learn how to use a Web page that creates other Web pages
• To understand how to create a Web page to test your code
Sequence

- Doing Things in a Given Order
- Browsers execute statements in the order they are received.
- Statements are placed in the HEAD within the `<script></script>` tag.
Loops

- Doing things repeatedly
- The for loop
  - Initial expression
  - Test condition
  - Update expression
Conditional Branching

- Code that makes decisions
- The if-else structure
  - Test a condition
  - One set of statements if condition is true
  - Another set of statements if condition is false
- Take care to not confuse assignment (\(=\)) with equality (\(==\))
Where to Placing Scripts

• Scripts can go in the HEAD or the BODY
• Event handlers in BODY send values to functions in HEAD

```html
<html>
<head><title>a place for scripts</title>
<script type="text/javascript" language="javascript">
<!--
function showText(inputdata){
    window.alert(inputdata);
}
//-->
</script>
</head>
<body bgcolor="white">
<p>Please type any text and then click the button.</p>
<form name="sampleform">
<input type="text" size=50 name="userinfo"><br><br>
<input type="button" name="mybutton" value="show text" onclick="showText(document.sampleform.userinfo.value);">
</form>
</body>
</html>
```

The onclick event handler sends the information typed by the visitor to the showText() function in the head. The showText() function then displays the information in an alert window.
Code Libraries

- Reuse your favorite scripts
- Store code libraries in plain text files
- Use the .js extension for code libraries
- Reference your source libraries using the script tag.
- `<script type="text/javascript" language="javascript" src="mylibrary.js">`
A Page to Make HTML Code

• Place the buildPage() function in mylibrary.js
• The pagecontent variable stores code for an html page
• The contents of pagecontent are placed in an on-screen text field.
A Page to Test Code

- Visitors type code into a text field
- The eval() function executes the code