Javascript

Segment 5

CS 638 Web Programming

Important concepts

- Scripting languages
  - Interpreted, not compiled
  - Lax typing
  - Objects as associative arrays (dictionaries)
  - Prototype-based inheritance
- Client-side event handlers
- Client-side validation of user input
- The document object model
  - Code can read and change document dynamically

Specific technologies(1)

- JavaScript – the language
  - Arrays
  - Functions are just another type of object
  - Variable scoping
- JavaScript and the browser
  - Adding JavaScript: `<script>`, event handlers, and `javascript:` links
  - Important objects linked to browser: `document`, `location`, `navigator`, etc.
  - Direct user interaction: `alert()`, `confirm()`, `prompt()`
  - Timers: `setTimeout()`, `clearTimeout()`, `setInterval()`, and `clearInterval()`

Specific technologies (2)

- Accessing forms
  - `document.forms, document.forms[0].elements,`
    `document.forms[0].elements[2],`
    `document.forms[0].xyz`
  - Important element properties: `type, name, value`
- Accessing the entire document with W3C DOM
  - Tree structure for the document
  - Methods for manipulating DOM
  - Standard properties of DOM nodes
- Various events we can define handlers for:
  `onchange, onsubmit,` etc.
  - Most HTML elements can have their own event handlers