

Overview

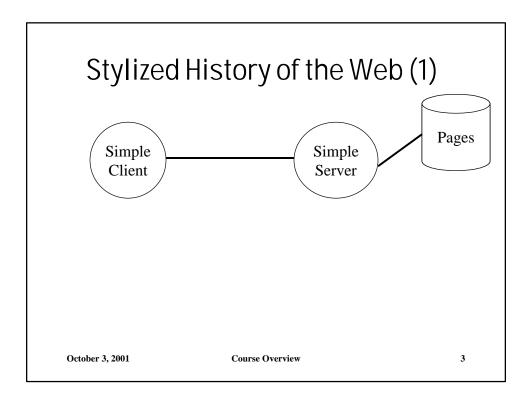
- Stylized history of the web
- Client server computing in a nutshell (For the first of three times)
 - Client server computing (generally)
 - The World Wide Web model
 - Protocols and Data Interchange Formats
- Course Overview
 - Lectures
 - Laboratories
 - · Help during the summer
 - · Course examination

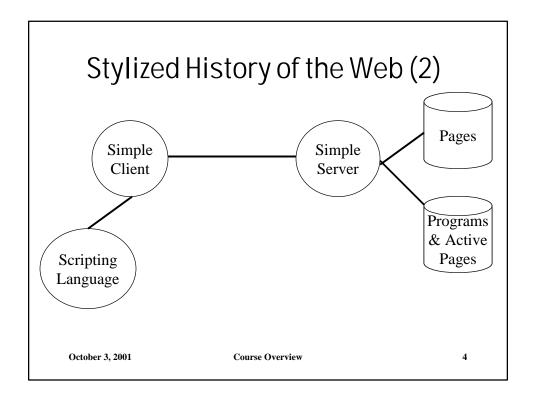
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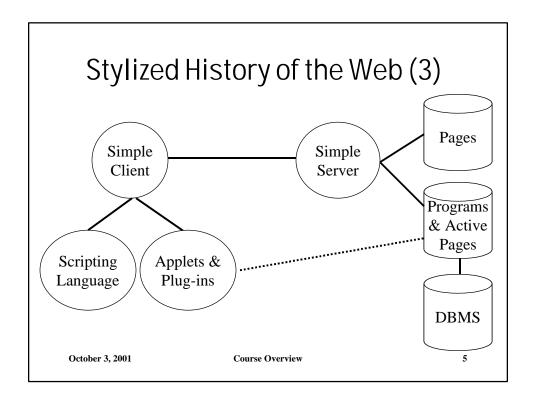
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History of Web

- Generation 1
 - Static pages with editing
 - · Static pages with GUI
- Generation 2
 - Dynamic pages on the server (CGI scripts)
 - Dynamic pages on the client (VB/Java scripts)
- · Generation 3
 - · DBMS back ends on the server
 - Downloadable client extensions (applets)
 - Server Extensions (API's and servlets)
 - ASP and JSP n-tier applications
- Next Generation Semantic Web

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Client-Server Computing Models

- Servers and daemons
 - · Server coding and security
- Protocols
 - IP
 - UDP/TCP
 - Application protocol
 - One shot
 - Dialog fixed, delimited, TLV
 - · Data Interchange
 - · Text streams
 - Binary transfer formats

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The WWW model

- The web operates on a client server model
- The client is responsible for:
 - · Address resolution
 - Page Display
- The server is responsible for
 - Request management
 - · Request resolution
 - Processing of dynamic requests

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Protocols and Data Interchange

- The http protocol is a simple protocol
 - · Make a connection
 - · Make a request
 - · Accept a response
- The data interchange format for the web is also simple
 - Reminiscent of SMTP
 - Header
 - Blank line
 - Body
- The protocol header and body is not to be confused with the HTML header and body

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Implications

- How does a web client work
- How does a web server work
- How does CGI work
- How do active server pages work
- How does a spider work
- How does a proxy server work

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Cautions

- Getting a good grounding
 - Debugging client server code
 - Multiple levels of indirection
 - A servlet writing a servlet to write a form to be processed by a servlet
- The importance of string processing
 - Raw text processing strings versus lines
 - DOM and SAX processing
 - Well formed XML (HTML)
 - Valid XML (HTML)
- Object Oriented Models and Graphical IDE's

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