CS320 Web and Internet Programming
Introduction to Web Application Development

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Browsing the Web

How the (Static) Web Works

HTTP Server

HTTP request

HTTP response

Browser

htdocs

welcome.html

\cs320stu31

index.html

URL

http://cs.calstatela.edu:8080/cs320stu31/index.html

Dynamic Content

◆ Web search results
◆ Shopping cart
◆ ...
◆ Anything that need to be generated on the fly based on user request

HTML

<html>
  <head><title>CS320 Hello</title></head>
  <body>
    Welcome to <b>CS320</b>!
  </body>
</html>
Deliver Dynamic Content

**Terminology**

- **Application server**
  - Servlet container
- **Server-side programming vs. Client-side programming**

**Client-side Technologies**

- HTML, CSS
- JavaScript
- Java Applet
- Rich Internet Application (RIA) technologies
  - Adobe Flex and Flash
  - Microsoft Silverlight

**Server-side Technologies**

- CGI
  - C, Perl
- Java
  - Servlet/JSP
- ASP.NET
  - VB, C#
- PHP
- Ruby
- Python

**Why Web Applications?**

- Take traditional businesses to larger audience
  - Amazon, Netflix
- Replace desktop applications
  - Google Docs, MS Office Live
- Open up new opportunities
  - Facebook, Twitter, Youtube
Advantages of Web Applications

- Low publishing and distribution cost
- Potentially large user base
- Centralized administration
  - No client side installation
  - Professional maintenance
  - Easy data backup
  - Easy upgrade
- Available anywhere, anytime
- Piracy proof