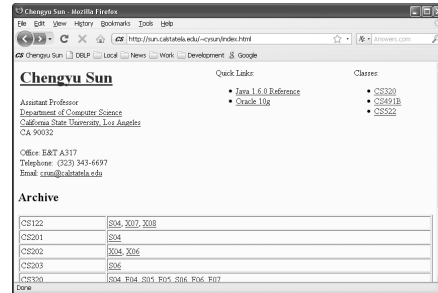# CS320 Web and Internet Programming
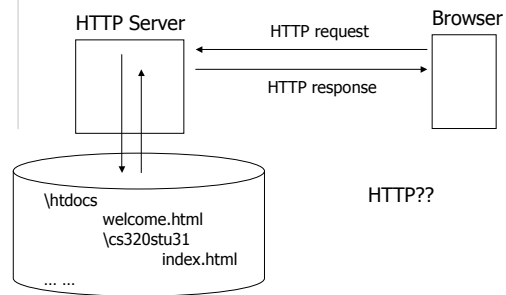Introduction to Web Application Development

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Browsing the Web

How the Web Works

HTTP Server ←── HTTP request ── Browser
         ──── HTTP response ──→

\htdocs
    welcome.html
    \cs320stu31
        index.html
… …

HTTP??

URL

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

HTML

```
<html>

  <head><title>CS320 Hello</title></head>

  <body>
    Welcome to <b>CS320</b>!
  </body>

</html>
```
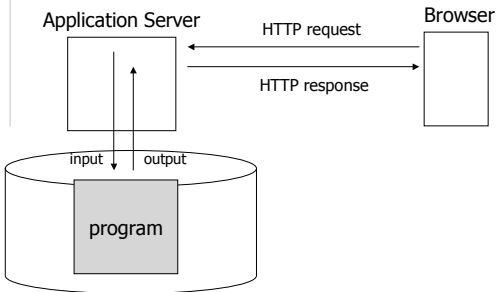

Dynamic Content

◈ Web search results
◈ Shopping cart
◈ …
◈ Anything that need to be generated *on the fly* based on user request
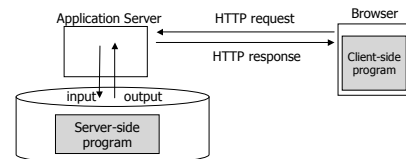
Deliver Dynamic Content

Terminology

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

Server-side Technologies

◆ CGI   ⎫ old
  ▪ C, Perl
◆ Java   ⎫
  ▪ Servlet/JSP   ⎬ mainstream
◆ ASP.NET
  ▪ VB, C#
◆ PHP   ⎭
◆ Ruby   ⎫ other
◆ Python   ⎭

Client-side Technologies

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

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