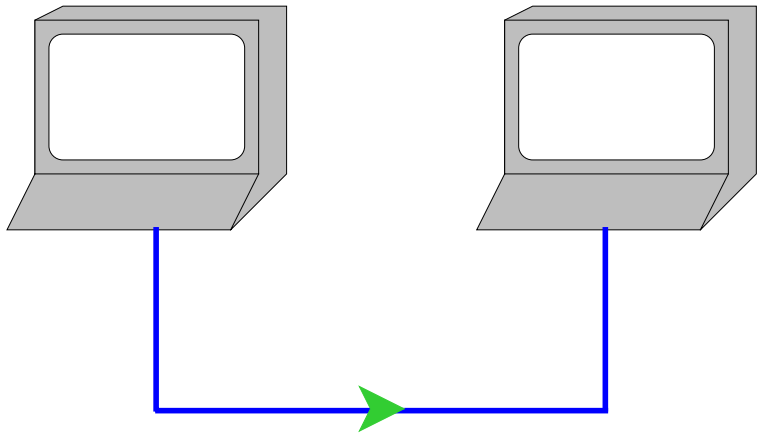
Last Reminder: Date Change for Mid-Term 2

As you know, Mid-Term 2 will be on

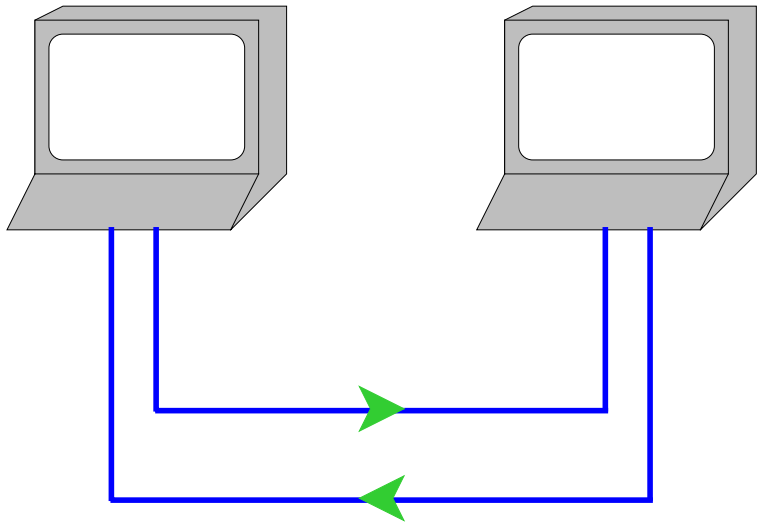
Wednesday, November 5

instead of Friday, November 7

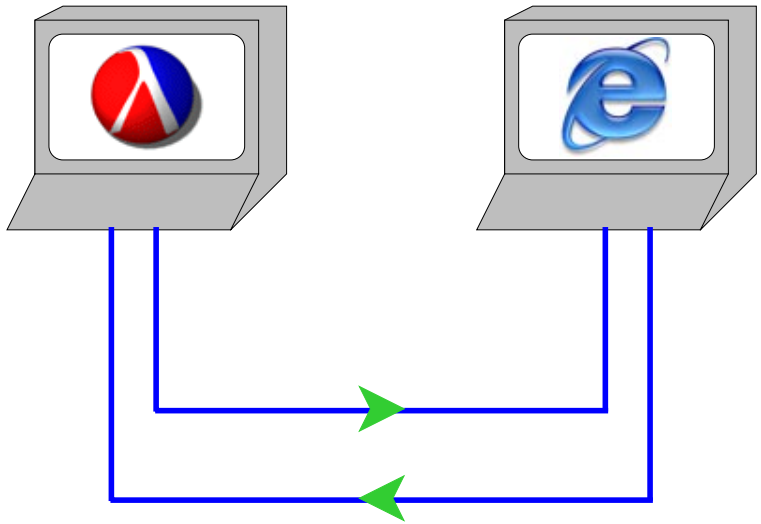
Web Server Example



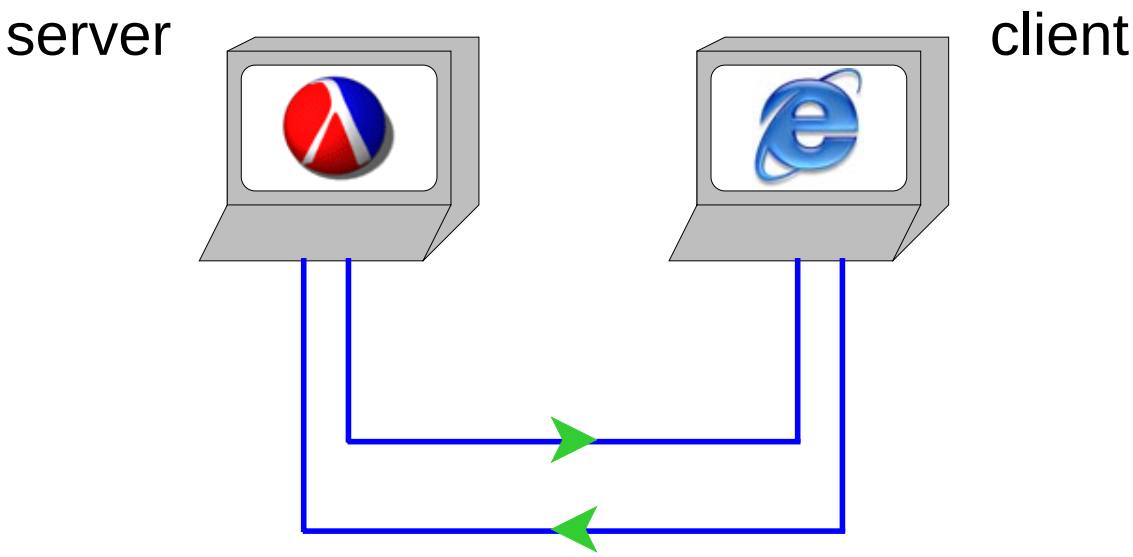
Web Server Example



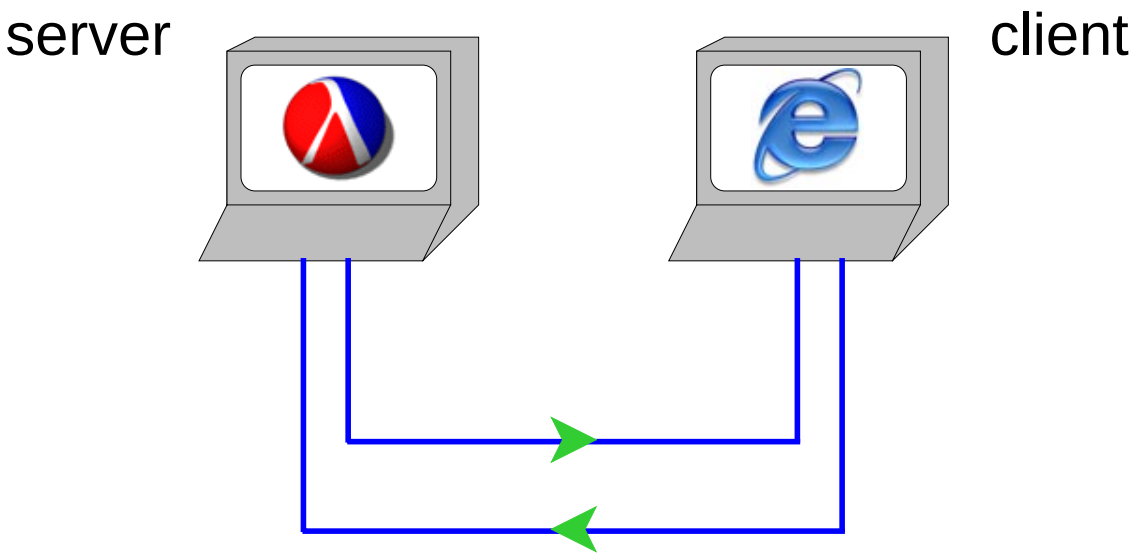
Web Server Example



Web Server Example



Web Server Example



Connecting:

Server: `(define l (tcp-listen 4000))`

Client: `(tcp-connect "127.0.0.1" 4000)`
→ `#<input-port> #<output-port>`

Server: `(tcp-accept l)`
→ `#<input-port> #<output-port>`

Examples in DrScheme...

Web Page Encoding

A web page is more than plain characters:

CS 2010

Date	Topic	Notes
Nov 3	Java	slides
Nov 5	*Mid Term 2*	

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CS 2010

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To encode fonts, color, table layout, links, etc., web servers and clients communicate using ***XML*** ... roughly

```
<html><p align="center"><font size="+2">CS 2010</font></p>
      <table><tr><td><b>Date</b></td>
                 <td><b>Topic</b></td>
                 <td><b>Notes</b></td></tr>
               <tr><td>Nov 3</td> ...</tr>
               ...</table></html>
```

Examples in DrScheme...

Generating XML

Since XML has an S-expression like structure, and since we're using Scheme, it makes sense to generate S-expressions and convert them to XML

```
(xexpr->string '(html () "Hello"))
"should be" "<html>Hello<html>"

(xexpr->string '(html () "0 < 1"))
"should be" "<html>0 &lt; 1<html>"

(xexpr->string '(html ()
                      (font ((size "+2"))
                            "Hello")))
"should be"
"<html><font size=+2>Hello</font><html>"
```

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                            "Hello")))
"should be"
"<html><font size=+2>Hello</font><html>"
```

If you're using Java, then you'll generate object trees instead of S-expressions, but it's the same idea

Family tree server in DrScheme...