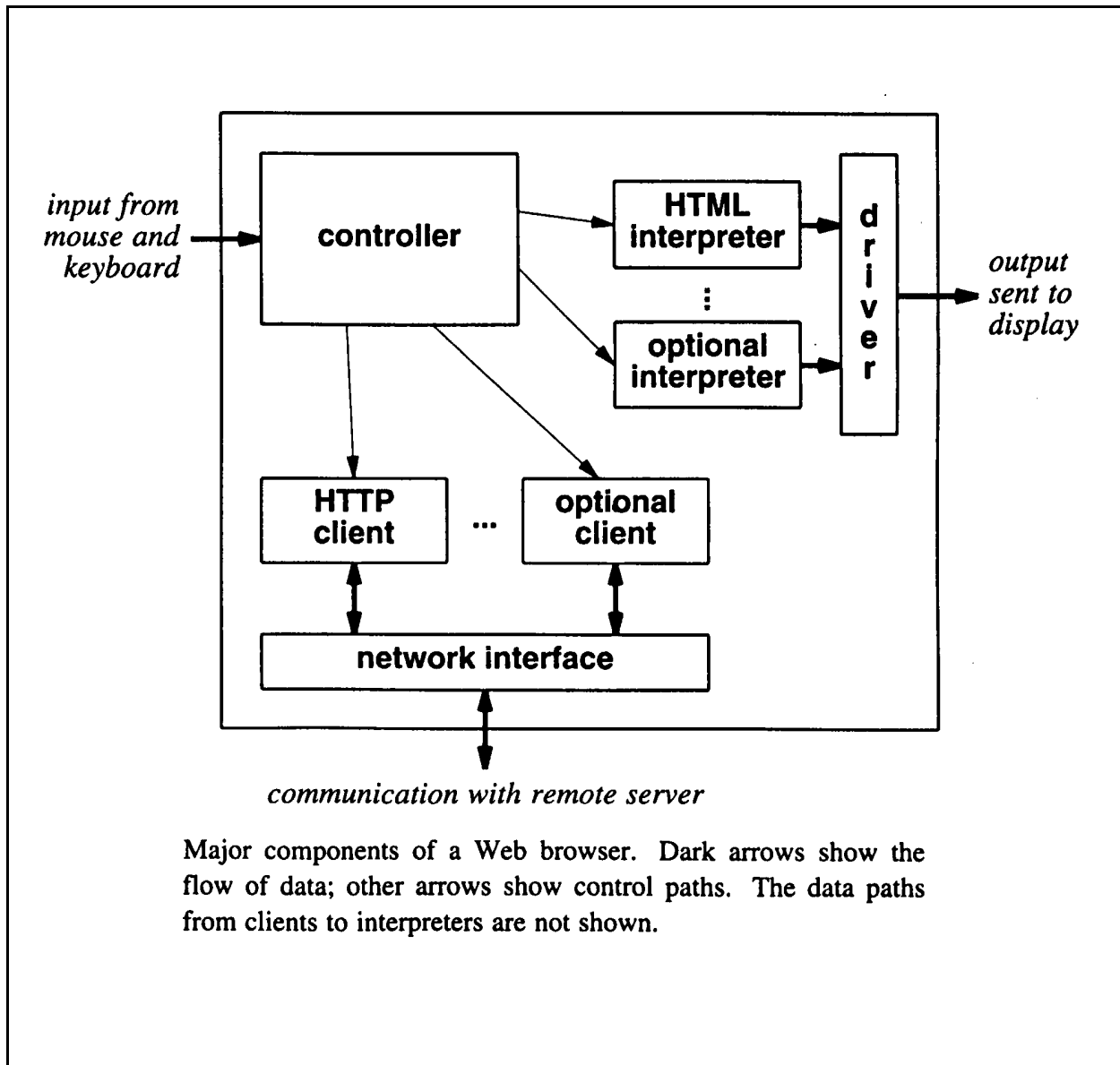


## The World Wide Web (WWW)

- The World Wide Web is a large scale, on-line repository of information that users can search using an interactive application program called a **browser**.
- Technically, the web is a distributed **hypermedia** system that supports interactive access.
- Information is stored in a set of documents.
- Besides the basic information, a document can contain pointers to other documents in the set.
- A hypermedia document available on the Web is called a **page**. The root page for an organization or individual is called the **homepage**.
- Each Web page that contains a hypermedia document uses a standard representation known as **Hypertext markup language (HTML)**.
- HTML allows an author to give general guidelines for display and to specify the contents of the page. (Consequently, two browsers may display a page differently.)

## Browser Architecture

- A browser interacts with a Web server using HTTP.
- A browser consists of a set of clients, a set of interpreters, and a controller that manages them.



## HTML Format and Representation

- Each HTML document consists of two parts (or sections): a **head** followed by a **body**.
- Each HTML document is represented as a text file that contains **tags** along with other information.
- HTML tags provide structure for the document as well as formatting hints.

- General Form of an HTML Document:

```
<html>
  <head>
    <title>
      text that forms the document title
    </title>
  </head>

  <body>
    body of the document appears here
  </body>
</html>
```

- Example:

See demo

- Equivalent Document:

```
<html><head><title>text that forms the document
title</title></head><body>body of the document
appears here</body></html>
```

## Example HTML Formatting Tags

- Headings:

```
<center><h1>Heading of Page</h1></center>
```

Heading of Page

- Line Breaks:

```
Hello.<br />This is an example<br />of HTML
```

Hello.  
this is an example  
of HTML

- Unordered Lists:

Here is a list of 4 names:

```
<ul>  
<li> Scott </li>  
<li> Sharon </li>  
<li> Jan </li>  
<li> Rebecca </li>  
</ul>
```

This text occurs after the list

Here is a list of 4 names:

- Scott
- Sharon
- Jan
- Rebecca

This text occurs after the list.

- Ordered Lists:  
Here is a list of 4 names:

```
<ol>  
<li> Scott </li>  
<li> Sharon </li>  
<li> Jan </li>  
<li> Rebecca </li>  
</ol>
```

This text occurs after the list

Here is a list of 4 names:

1. Scott
2. Sharon
3. Jan
4. Rebecca

This text occurs after the list.

- Bold, Italic, and Underlined Text:

```
<b> Bold text </b> <br /> <i> Italic text </i> <br /> <u>  
Underlined text </u>
```

**Bold text**

*Italic text*

Underlined text

- Paragraphs

Use <p> and </p> tags to delimit paragraphs.

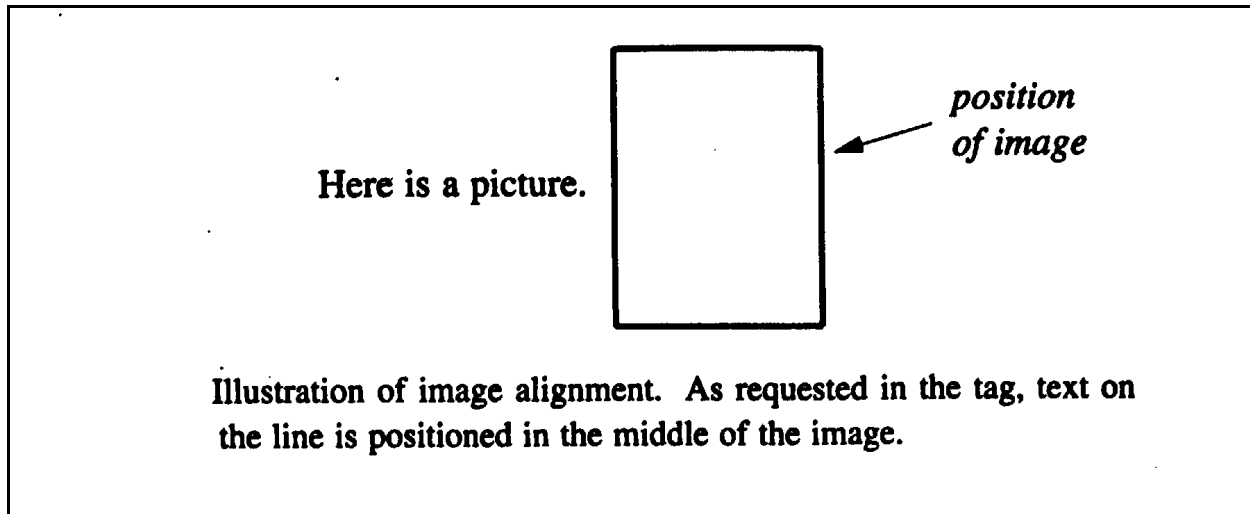
- Example:

See demos

## Embedding Graphical Images Into a Web Page

- Example:

Here is a picture. ``



Graphics files should be in either .gif or .jpg (or .jpeg) format only. Other formats will not work with all browsers.

- Background picture (wallpaper):

You can use a “**background = ...**” parameter within the `<body>` tag to change the background of a document.

- Sample `<body>` tag:

```
<body background = "http://www.site.com/myphoto.jpg">
```

- Note: You must use a complete web based URL in order to display a web based image.

- Example:

See demos

## Hypertext Links to Other Documents

- The HTML mechanism for specifying a hypertext reference is called an **anchor**.
- To include an **anchor** on a Web page use the tags **<a>** and **</a>**.
- To must also include a hypertext reference parameter, **“href = ...”**, within the anchor.
- Example:  
This book is published by  
<a href="http://www.pearsonhighered.com">  
Pearson Higher Education, </a> one of the larger  
publishers of Computer Science textbooks.
- Example Output:  
This book is published by Pearson Higher Education,  
one of the larger publishers of Computer Science  
textbooks.
- Example:  
See demo

## Adding Color to Web Pages

- There are 5 color elements to a Web page:
  - the background color
  - the text color
  - the unvisited link color
  - the visited link color
  - the active link color (sometimes visible when you hold down the mouse button before you release.)
- You can use parameters within the <body> tag to change the various color elements
- Sample <body> tag:

```
<body bgcolor="yellow" text="red" link="green" vlink="pink" alink="white">
```
- Note:

Do not use both “**background**” and “**bgcolor**”. One is like wallpaper and the other is like painting with flat paint. You either wallpaper or paint!
- Example:

See demo



## Tables

- To include a **table** on a Web page use the tags **<table>** and **</table>**.
- Individual rows of a table are delimited by the **<tr>** and **</tr>** tags.
- Elements within a row, or columns, are delimited by the **<td>** and **</td>** tags.

- Example:

```
<table>
  <tr><td>CORC 1312 </td> <td>Room 129F </td></tr>
  <tr><td>CISC 1050 </td> <td>Room 105F </td></tr>
  <tr><td>CISC 1110 </td> <td>Room 106F </td></tr>
  <tr><td>CISC 3110 </td> <td>Room 130F </td></tr>
</table>
```

- Output of Example:

```
CORC 1312 Room 129F
CISC 1050 Room 105F
CISC 1110 Room 106F
CISC 3110 Room 130F
```

- Borders can be added using the “**border = ...**” parameter.

```
<table border = 1>
  <tr><td>CORC 1312 </td> <td>Room 129F </td></tr>
  <tr><td>CISC 1050 </td> <td>Room 105F </td></tr>
  <tr><td>CISC 1110 </td> <td>Room 106F </td></tr>
  <tr><td>CISC 3110 </td> <td>Room 130F </td></tr>
</table>
```

(See demo for sample output)