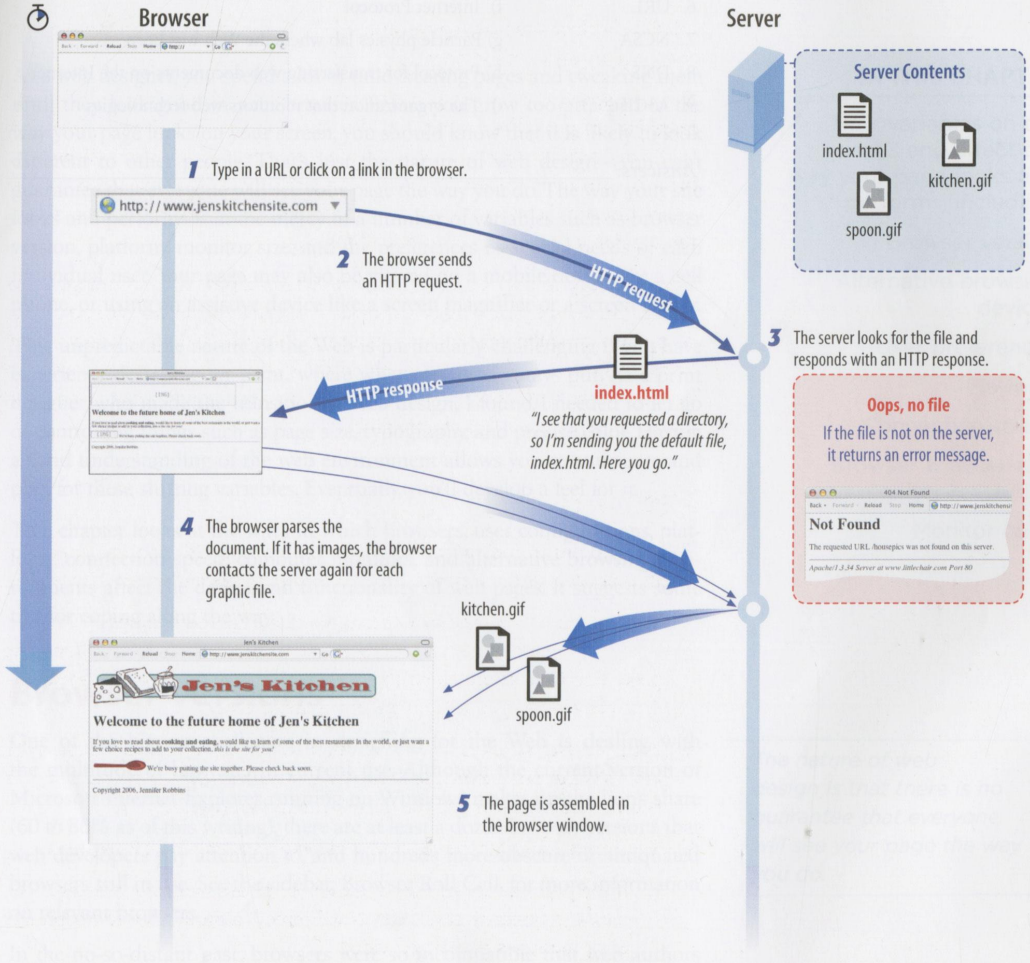
How the Internet Works


Browser
Server
Server Contents
index.html
kitchen.gif
spoon.gif
1 Type in a URL or click on a link in the browser.
http://www.jenskitchensite.com
2 The browser sends an HTTP request.
HTTP request
3 The server looks for the file and responds with an HTTP response.
HTTP response
index.html
"I see that you requested a directory, so I'm sending you the default file, index.html. Here you go."
Oops, no file
If the file is not on the server, it returns an error message.
404 Not Found
Not Found
The requested URL /housepics was not found on this server.
4 The browser parses the document. If it has images, the browser contacts the server again for each graphic file.
kitchen.gif
spoon.gif
Jen's Kitchen
Welcome to the future home of Jen's Kitchen
We're busy putting the site together. Please check back soon.
Copyright 2006, Jennifer Robbins
5 The page is assembled in the browser window.

Internet

Is a network of connected computers which primary purpose is to share information.

Protocols

Are ways in which information can be passed from one computer to another. Examples include:

- Email
- FTP (File Transfer Protocol)
- HTTP (HyperText Transfer Protocol)
- IP (Internet Protocol)

World Wide Web

Is one way information can be shared over the Internet. It connects documents together through the use of hypertext links. The Web uses a protocol called **HTTP**.

http://

HTTP determines how information (text, images, audio files, movies, etc.) are arranged and transmitted on the Web. The **HTTP Servers** or **Web server** **browsers**, in turn demonstrate how that information should act or behave in response to various commands.

Web Browsers Today

Rendering Engine a software component that takes marked up content (such as HTML, XML, image files, etc.) and formatting information (such as CSS, XSL, etc.) and displays the formatted content on the screen. For this class Google Chrome will be the functionality of your websites will be evaluated in Google Chrome.

IP Address

Is a specific identification number assigned to a device (computer, printer, etc) that is within a particular computer network and is using the Internet Protocol.

example:

64.233.160.0

Domain Name System (DNS)

Is the most common “human” way to refer to
a server without using an IP address.

example:

google.com

URL (Uniform Resource Locator)

A URL is made up of three main elements:

- the protocol
- the site name
- the absolute path

example:

http://www.webopedia.com/term/u/url.html

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Absolute Path

http://www.webopedia.com/term/u/url.html

Protocol

http://www.webopedia.com/term/u/url.html

Host Name

http://www.webopedia.com/term/u/url.html

Domain Name

http://www.webopedia.com/term/u/url.html

Directory Path

http://www.webopedia.com/term/u/url.html

Document

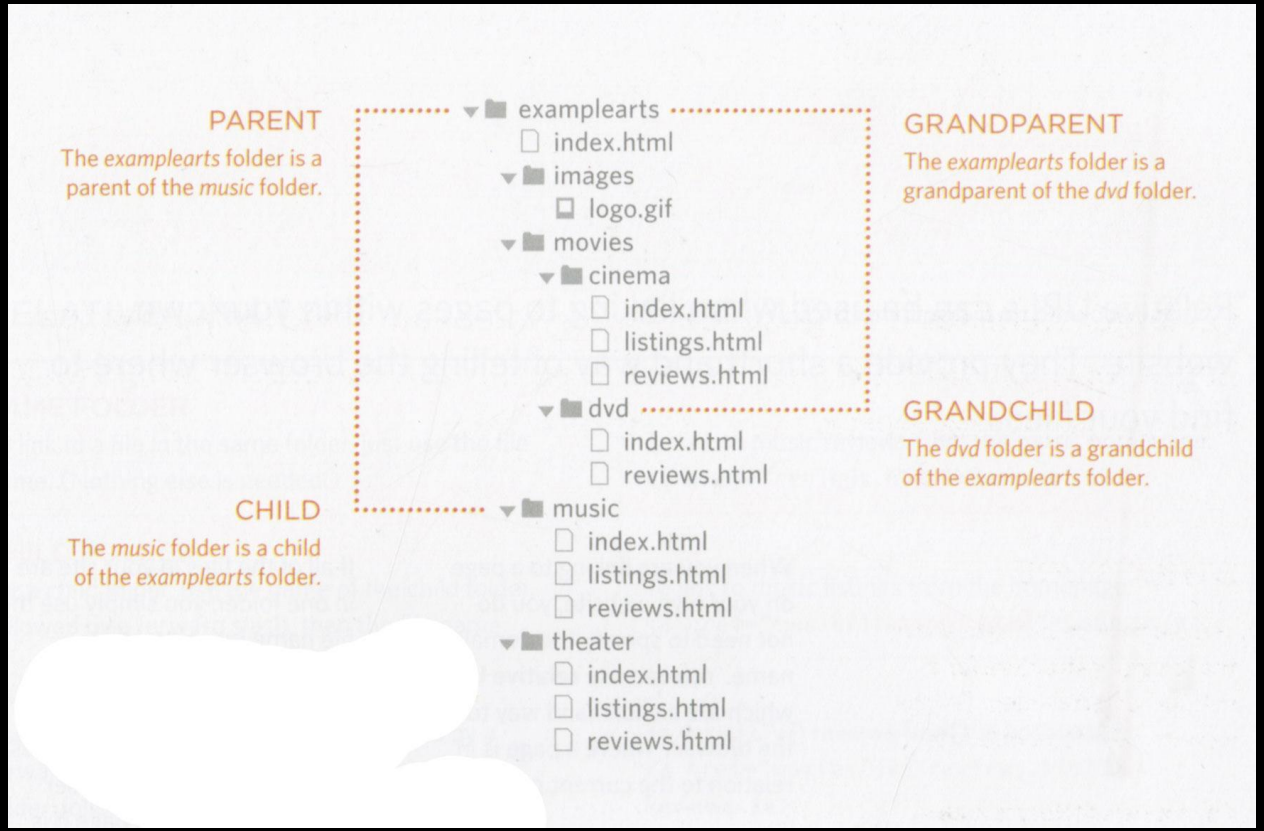
Directory Path

File organization is the key to a successful website. Its best practice to organize your code according to a folder structure hierarchy. Folders are also called directories.

Root Folder - Is the top level folder

index.html - Is the main homepage of a site written in HTML

Sample Directory Structure



Relative URLS

Can be used to link pages within your own website. They exist a shortened version of the path to a specific directory.

examples:

history.html

info/data.html

../img/image.png

Relative Link Examples

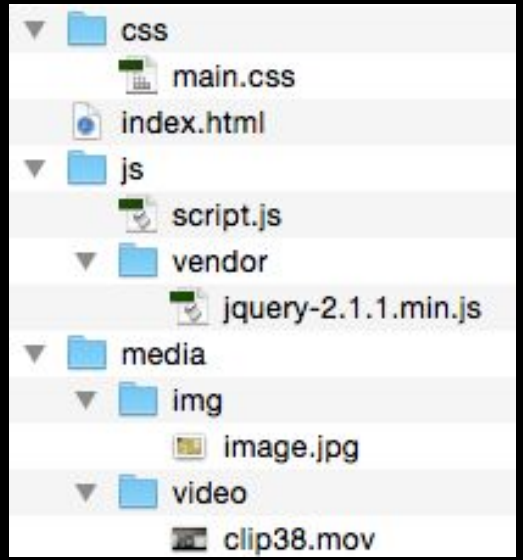
RELATIVE LINK TYPE	EXAMPLE (from diagram on previous page)
SAME FOLDER To link to a file in the same folder, just use the file name. (Nothing else is needed.)	To link to music reviews from the music homepage: `<a href="reviews.html">Reviews</a>`
CHILD FOLDER For a child folder, use the name of the child folder, followed by a forward slash, then the file name.	To link to music listings from the homepage: `<a href="music/listings.html">Listings</a>`

GRANDCHILD FOLDER
Use the name of the child folder, followed by a forward slash, then the name of the grandchild folder, followed by another forward slash, then the file name.
	To link to DVD reviews from the homepage:
	`<a href="movies/dvd/reviews.html">`
	`Reviews</a>`

PARENT FOLDER Use `../` to indicate the folder above the current one, then follow it with the file name.	To link to the homepage from the music reviews: `<a href="../index.html">Home</a>`
GRANDPARENT FOLDER Repeat the `../` to indicate that you want to go up two folders (rather than one), then follow it with the file name.	To link to the homepage from the DVD reviews: `<a href="../../index.html">Home</a>`

Typical Website Organization

Best practices for file names:
lowercase, numbers, hyphens (-),
underscores (_)



Exercise #1:

File Organization & Path Navigation