

# Computer Science Principles

## Web Programming

### Web-Content Programming with HTML

CHAPTER 6/7: ADDING LINKS, IMAGE FILES

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# Adding Links

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CHAPTER 6

## SEO Cheat Sheet: Anatomy of A URL

### 1 SEO-FRIENDLY URL

 **1** **2** **3** **4** **5** **6** **7**  
`http://store.example.com/topics/subtopic/descriptive-product-name#top`

- 1** Protocol
- 2** Subdomain
- 3** Domain
- 4** Top-Level Domain
- 5** Folders / Paths
- 6** Page
- 7** Named Anchor

#### Keyword Priority<sup>1</sup>

Observed Google priority of keyword placement:

- (1) Domain
- (2) Subdomain
- (3) Folder
- (4) Path/Page

#### SEO Tips for URLs

- Use **subdomains** carefully. They may be treated as separate entities, splitting domain authority.
- Separate **path** & **page** keywords with hyphens ("-").
- **Anchors** may help engines understand page structure.
- Keyword effectiveness in URLs decreases as URL length and keyword position increases.<sup>1</sup>

<sup>1</sup> SEOMoz correlational data (2009)

### 2 OLD DYNAMIC URL

 **1** **2** **3** **4** **5** **6** **7** **7** **7**  
`http://www.example.com/index.php?product=1234&sort=price&print=1`

- 1** Protocol
- 2** Subdomain
- 3** Domain
- 4** Top-Level Domain
- 5** Page / File Name
- 6** File Extension
- 7** CGI Parameters

#### Popular TLDs<sup>2</sup>

.com - commercial  
.net - infrastructure  
.org - non-profit  
.edu - schools  
.info - informational  
.biz - small business  
.name - personal sites

#### Popular ccTLDs\*

.cn - China  
.de - Germany  
.uk - United Kingdom  
.nl - Netherlands  
.eu - European Union  
.ru - Russian Federation  
.ar - Argentina

#### Popular Extensions

.htm - Static HTML  
.html - Static HTML  
.php - PHP code  
.asp - ASP code  
.aspx - ASP.NET  
.cfm - ColdFusion  
.jsp - Java Code

<sup>2</sup> Verisign domain report (2009)

\* ccTLD = Country Code TLD

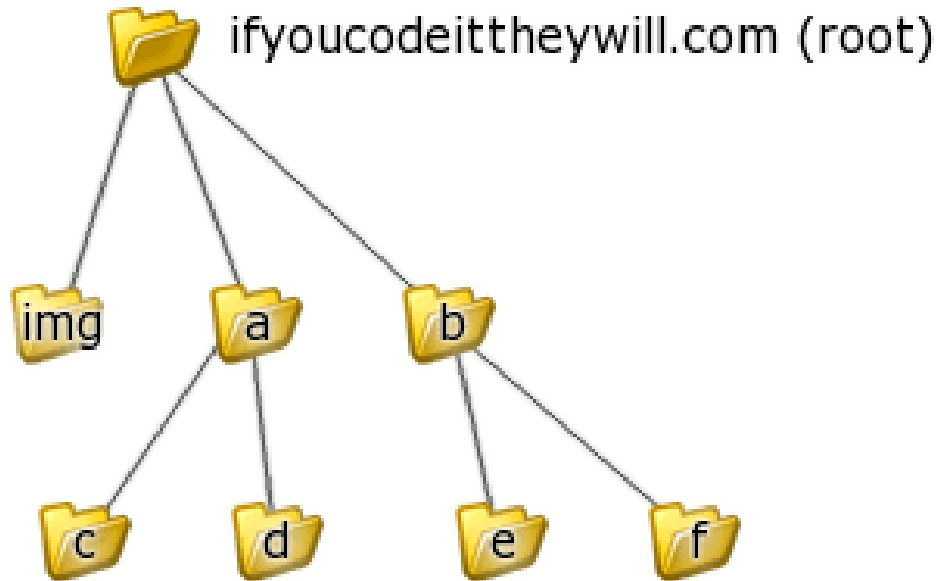
# Uniform Resource Locator (URL)



# Anchor Tag `<a></a>`

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- Anchor tag is used to anchor any URL link into the html document.
- It can be used to locate a web page, an image, a text file, a video file and any other file type which can be found by the URL provided
- Any URL with #fragment can be used to locate any element in a html. The #fragment is used to identify the element with id="fragment",
- The URL is specified by the href attribute (hypertext reference)
- The text written in between `<a>` and `</a>` is the link access point on the html page, which means if the text is clicked, the target resource will be accessed.
- Do Ex. 6.1



# Relative URL

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- A web-site (ifyoucodeittheywill.com) has a root directory as shown on the left.
- URL <http://www.ifyoucodeittheywill.com> will access index.htm or index.html at root directory
- In index.htm file, URL of a/c/test.htm will access the test.htm file in c directory
- .. means upper level directory
- . Means current directory
- For test.htm, ../../b/e/test2.htm will access test3.htm in e directory
- Do Ex 6.2 – 6.6



# Links to a #fragment in a html file

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`<a href="#startH">H</a>`, click on H text will jump to the element with `id="start"`

Source

```
<h2 id="startH">H</h2>
```

```
<dl> ...
```

Destination

```
<p> ... | F | G | <a href="startH">H</a> | I | J ... </p>
```

`<a href="glossary.html#startH">H</a>`, click on H text will access the `<h2>` tag with `id="startH"` section in the glossary.html file.

Do Ex 6.8



# Adding Image

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CHAPTER 7: ADDING IMAGE



# Link to image file, email, and telephone

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- `` will link to a image file named `jenskitchen.gif` under images directory in current directory
- If the file can not be found, `Jenskitchen Page` text will be shown instead
- `<a href="mailto:alklecker@example.com">Contact Al Klecker</a>` is anchor point to initiate an email link. Click on it, the default email tool will pop up. On PC, it can very likely be outlook.
- `<a href="tel:+18005551212">Call us free at (800) 555-1212</a>` is a link to initiate a phone call to 1-(800)-555-1212.



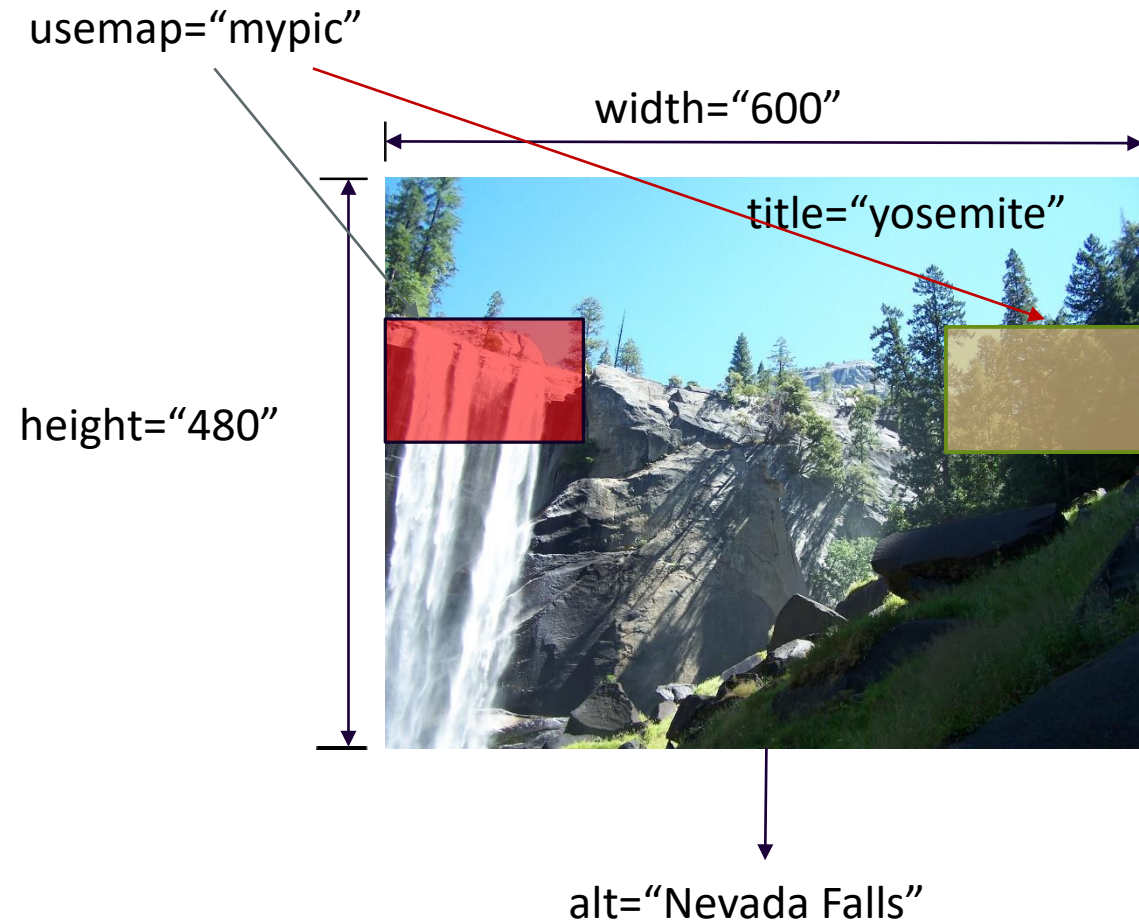


# Targeting a New Browser Window (or Tab)

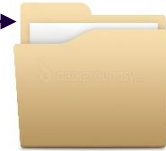
---

- A new window with Markup: setting `target="_blank"` No control on the name and size. Usually a tab will be created. (Sometimes, a new window)
- A new window with specific name.
  - `<a href="http://www.oreilly.com" target="display">O'Reilly</a>`
- Popup window with no toolbars, scrollbars, etc. It takes Javascript to do it.





src="image/Yosemite.jpg"



```
<!DOCTYPE html>
<html>
  <head>
    .
  </head>
  <body>
    <img src="" alt="" usemap="#mypic">
    <map name="mypic">
      <area shape="rect" coords="x1,y1,x2,y2"
        href="" alt="">
      <area shape="rect" coords="x2,y1,x3,y2"
        href="" alt="">
    </map>
  </body>
</html>
```



# Demonstration Program

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USEMAP.HTML

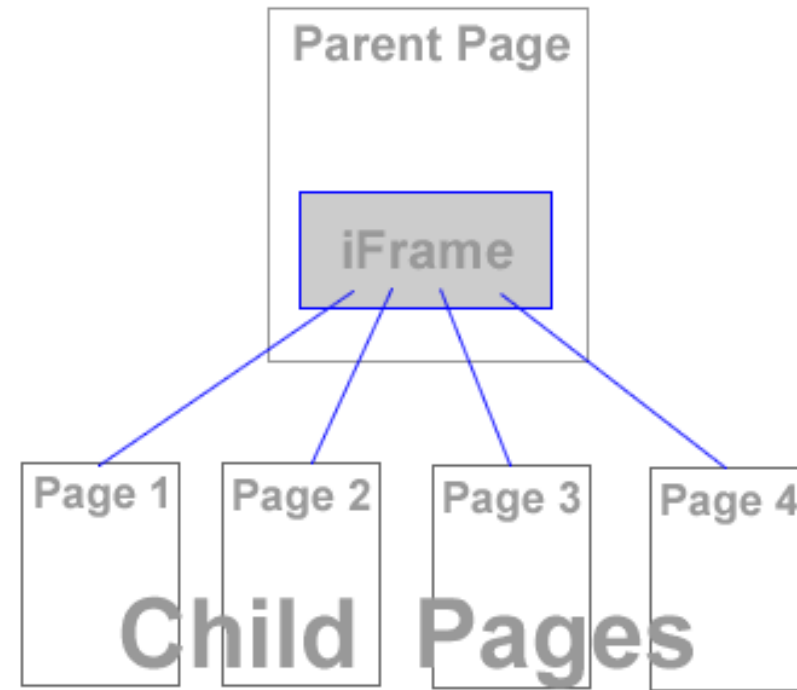




# Notes for Image Tag

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- The unit for img tag is pixels (**px**)
- In html5 **<figure>** tag and **<figcaption>** tag can be used to include a image file and to provide a figure caption for it.
- Do Ex. 7.1



iframe tag

```
<iframe src="html file" width="number" height="number">
```