IMAGES FOR THE WEB

IMAGE FILE FORMATS

Web Browser Friendly	New	Other Formats (not web friendly)
• JPG • GIF • PNG • BMP • ICO • …a few more	• PDF • SVG	• TIFF • CGM • VML • HEIF • BAT • …hundreds more

MEDIA ON THE WEB

For any media: images; sound files; video; et cetera

The Internet is slow(ish)

Computers are slow(ish)

File size is important

Small file sizes are fast

Large file sizes look better

Trade off:

Speed, versus…

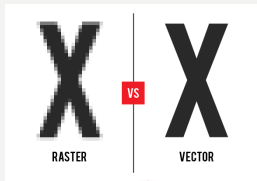High resolution

DIGITAL GRAPHICS FAMILY TYPES

RASTER (BITMAPS)

- JPGs, GIFs, PNGs
- Pixels
- Detailed images
- Photographs
- Realistic
- Can be large file sizes
- Limited scalability
- Not inherently mobile-friendly

VECTOR (LINE DRAWINGS)

- SVGs
- Lines, curves, fills
- Line art
- Logos, drawings
- Simplistic
- Small file sizes
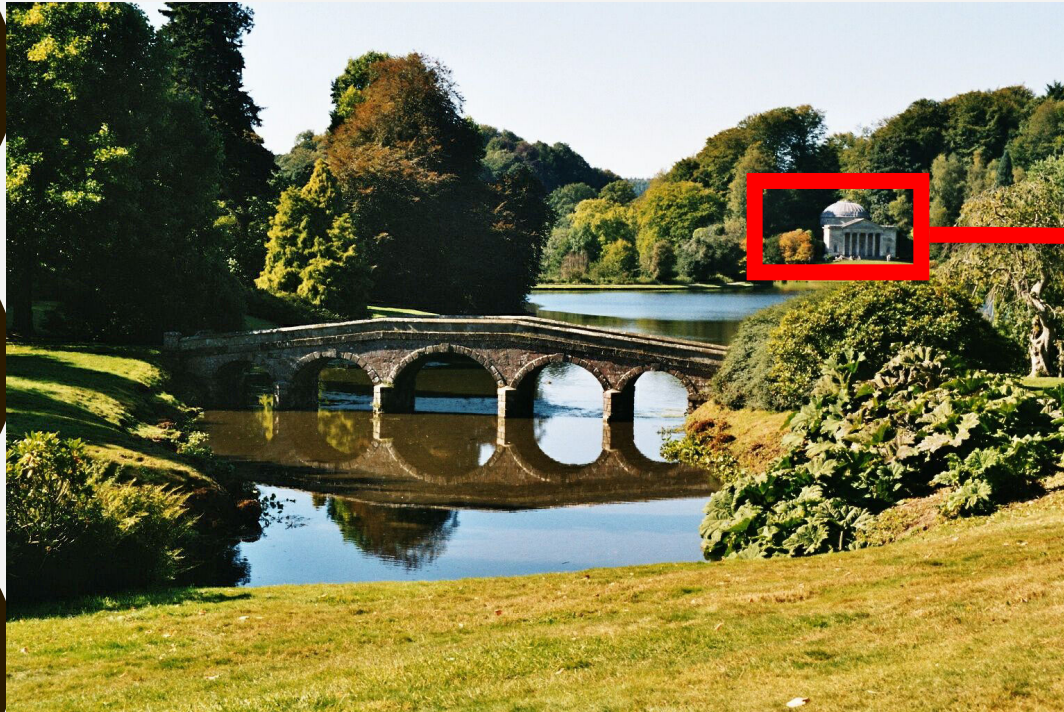- Scalable
- Mobile-friendly

RASTER VS. VECTOR

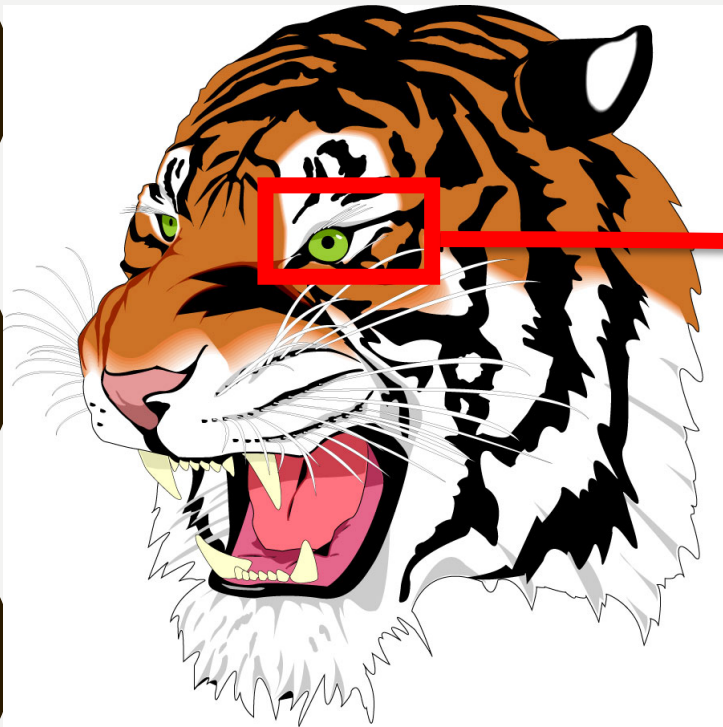

Pixilation | VS | Scalable

RASTER (BITMAP)

Pixilation

VECTOR

No Pixilation

FILE TYPES: THE BIG THREE

JPG, GIF, PNG

JPEG (.JPG)

- Joint Photographic Experts Group
- Best used for photographs
- Up to 16.7 million colors
- Uses lossy compression
- Cannot be made transparent
- Cannot be animated

GIF (.GIF)

- Graphics Interchange Format
- Best used for line art and logos
- Maximum of 256 colors
- Can use a transparent color (layer)
- Uses lossless compression
- Can be animated

Background color configured to be transparent

Background color – no transparency

PNG (.PNG)

- Portable Network Graphic

- Can be used for both photographs or line art and logos

- Up to 16.7 million colors

- Use lossless compression

- Can use a transparent color (layer)

- Can be animated (but not very well)

- Combines the best of GIF & JPEG

  - Doesn't compress as well as JPG (large file sizes!)

IMAGES ON WEBPAGES

HTML VS. CSS

HTML VS. CSS

IMAGES IN HTML

- Images that are part of the content belong in the HTML

- Use the HTML:
  `<img ...>` element

IMAGES IN CSS

- Images used for style, decoration (eye-candy) or otherwise "not content" belong in the CSS as background images

- Use the CSS property:
  `background-image: url("...");`

HTML IMAGE ELEMENT

- Configures graphics on a web page

`<img src="dog.jpg" alt="doggie">`

- `src` Attribute
  - File name of the graphic
- `alt` Attribute
  - Configures alternate text description
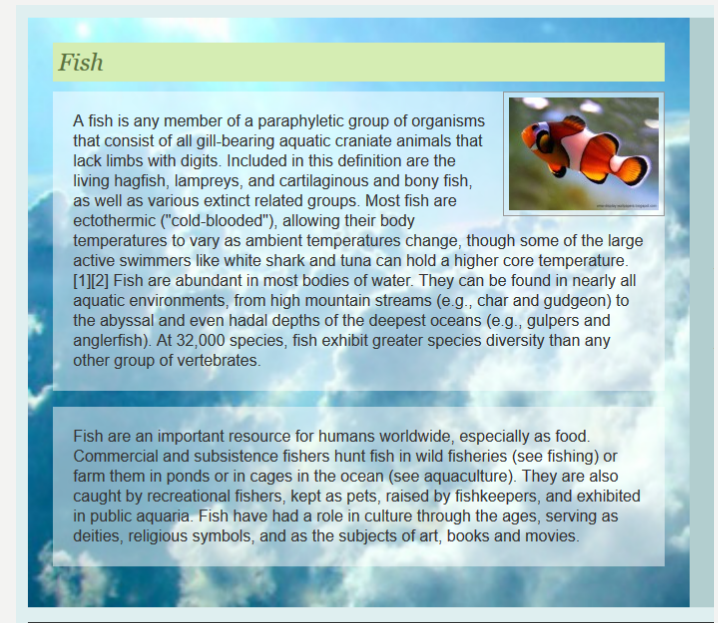- Do *not* use the `height=""` or `width=""` attributes

CSS BACKGROUND-IMAGE PROPERTY

- Configures a background-image

`background-image: url(../images/clouds.jpg);`

- Works with helper properties
  - `background-repeat:`
  - `background-attachment:`
  - `background-position:`

  ...more

RELATIVE PATHS (LINKS)

- Same directory

  `<a href="`**`index.html`**`">Undergraduates</a>`
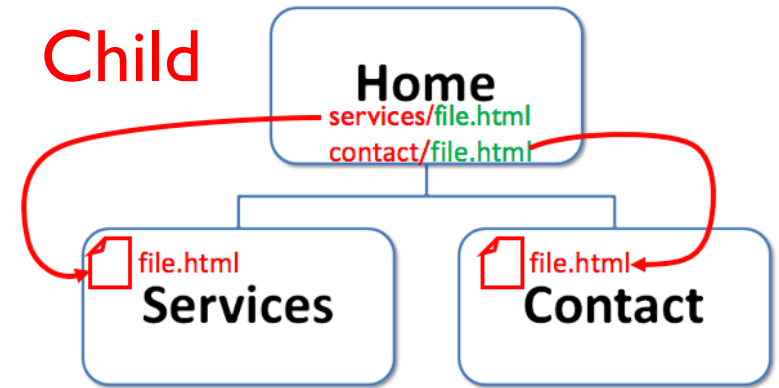
- Child

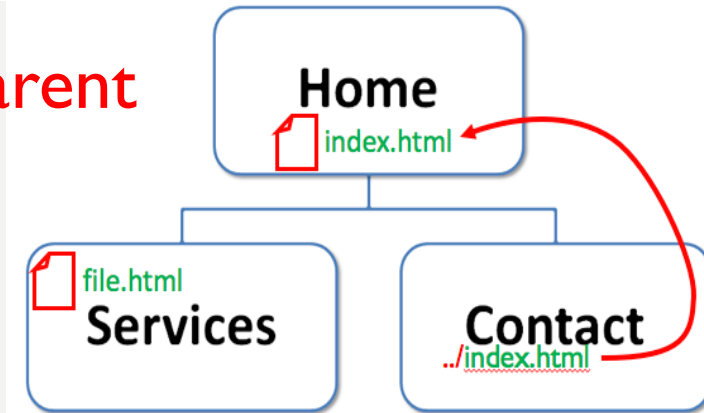 `<a href="`**`services/index.html`**`">Undergraduates</a>`

- Parent

  `<a href="`**`../index.html`**`">Home page</a>`

- Sibling

  `<a href="`**`../services/file.html`**`">Home page</a>`