# Images in HTML

## Example use:

<IMG SRC="media/logo.png" ALT="company logo">

Note the relative URL used to specify the source.

SRC and ALT are required attributes. ALT is required by standard in order to make the web accessible to people using text browsers or screen readers (including those with visual impairment). The page will work without it but do you really want to be that dick?

Other possible attributes are HEIGHT and WIDTH (dimension in pixels and STYLE.

## Alternate text

The ALT attribute specifies the alternate text. This text is shown if the image does not appear, and is also the hover text for the image.

## File formats

png format is open-source and free, while .gif is technically not. You could (theoretically) be charged for using the format.

JPEG is designed to work best for natural scenes.

## Cross-domain requests

The URL may refer to a different domain, e.g. copying the URL of an image on a website and using that URL in the source file.

If the website decides to move the image, then your link will no longer work.

Also, cross-domain requests may be forbidden in other contexts like JavaScript.

## HEIGHT and WIDTH

You can use pixels or percent (or possibly others) for the units. If you screw with the height and width independtly you can completely distort the image. You can specify only one and set the other to auto (not sure if that happens automatically or if there's like width="auto"), and then the aspect ratio will be preserved.

Another problem with this is upscaling an image so that the quality looks atrocious (unless you're using a vector-based format, as those can scale freely).

# Cross-Domain Request Attack

The browser makes a request to a web server, which responds with an embedded image, so the browser makes a request to a second web server where the image is stored.

If you send someone a webpage by email, you can include an image that's 1 pixel by 1 pixel, and is transparent, so that the person reading the email won't see it.

By tracking the request from the reader's computer to the server with the image, you can tell when the image was read.

This is the reason Gmail doesn't load images by default.

## Monitoring employees

Frank's example was an employer sending a "good morning" email to their employees, with each person having a different (invisible) image, then the employer will know when each person read the email, and therefore (probably) when they arrived in work. Can monitor if people are late.

## Bank transactions

If you're logged into your bank account on one tab, and load an image in another tab, that image could redirect to a URL corresponding to a bank transaction, causing the loading of that image to make a transaction that you did not permit.

## Prevention

Most email clients have good defaults to prevent this.

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## Images in hyperlinks

You can put images in <A> tags to make them a link.

By default browsers will draw horrible blue borders around these images that look awful.

You can suppress this by using the STYLE attribute to set the border to be 0.