Publish and Promote Website

Web application with HTML and CSS

Lesson Objectives

- Interactive with Javascript
- Form Validation
- Search Engines
- Publishing a website

Section 1

INTERACTIVE WITH JAVASCRIPT

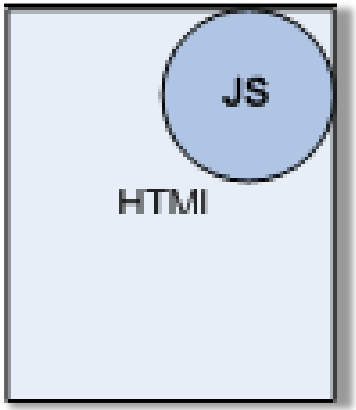
Why learn JavaScript?

- It’s a lot easier (and more fun) to learn
- In order to write and run JavaScript programs, all you need is a web browser
- Share your JavaScript programs with other

How to add JavaScript?

- **Internal JavaScript**
- **JavaScript** can be placed in the <**body**> and the <**head**> sections of an HTML page by using **<script>** tag
- **In the HTML page itself:**

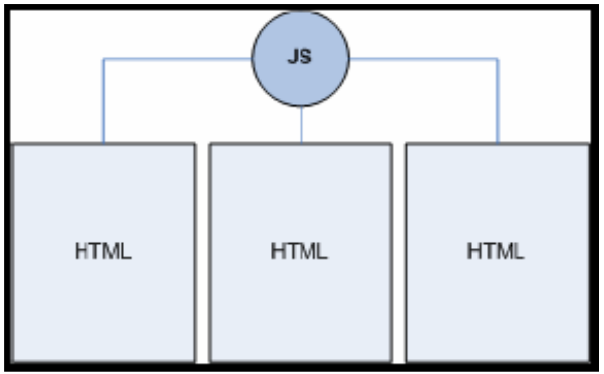
```
<html>
<head>
<script>
    // JavaScript code here
</script>
</head>
```



How to add JavaScript?

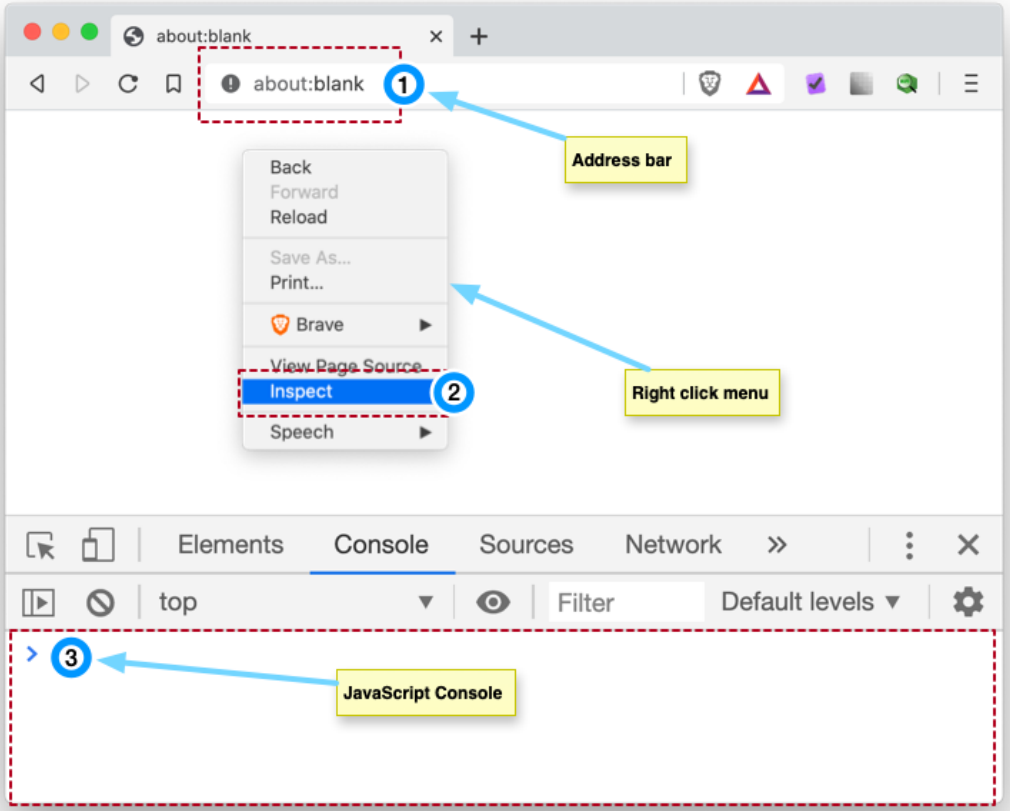
- **External JavaScript**
- **As a file, linked from the HTML page:**

```
<head>
  <script src="script.js">
  </script>
</head>
```



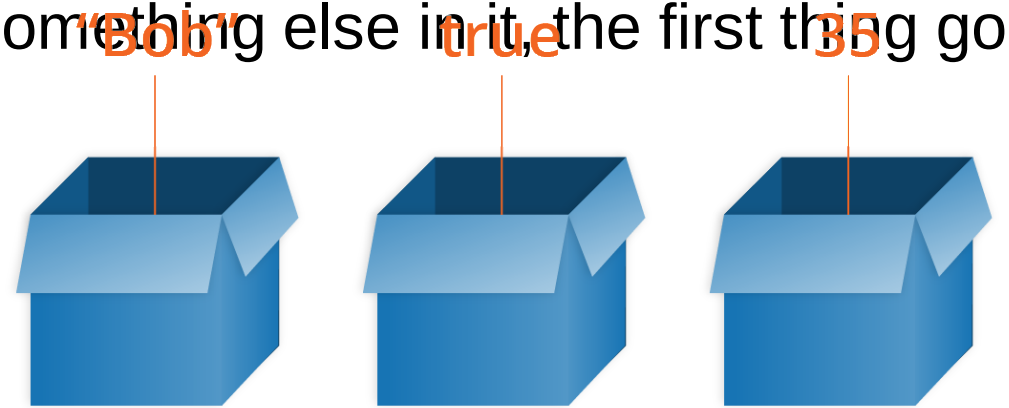
To test JavaScript

- Open Chrome browser
- Navigate to about:blank
- Right Click and choose **Inspect**
- Got to JavaScript Console by click on **Console** tab in
- Start typing JavaScript cod and press **Enter**
- Example: type 3 + 4; then press Enter

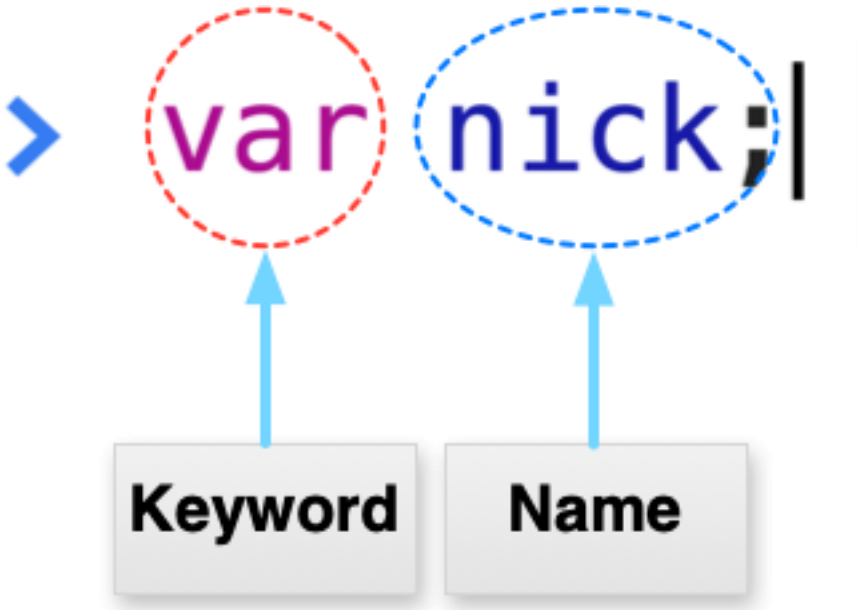


Variable

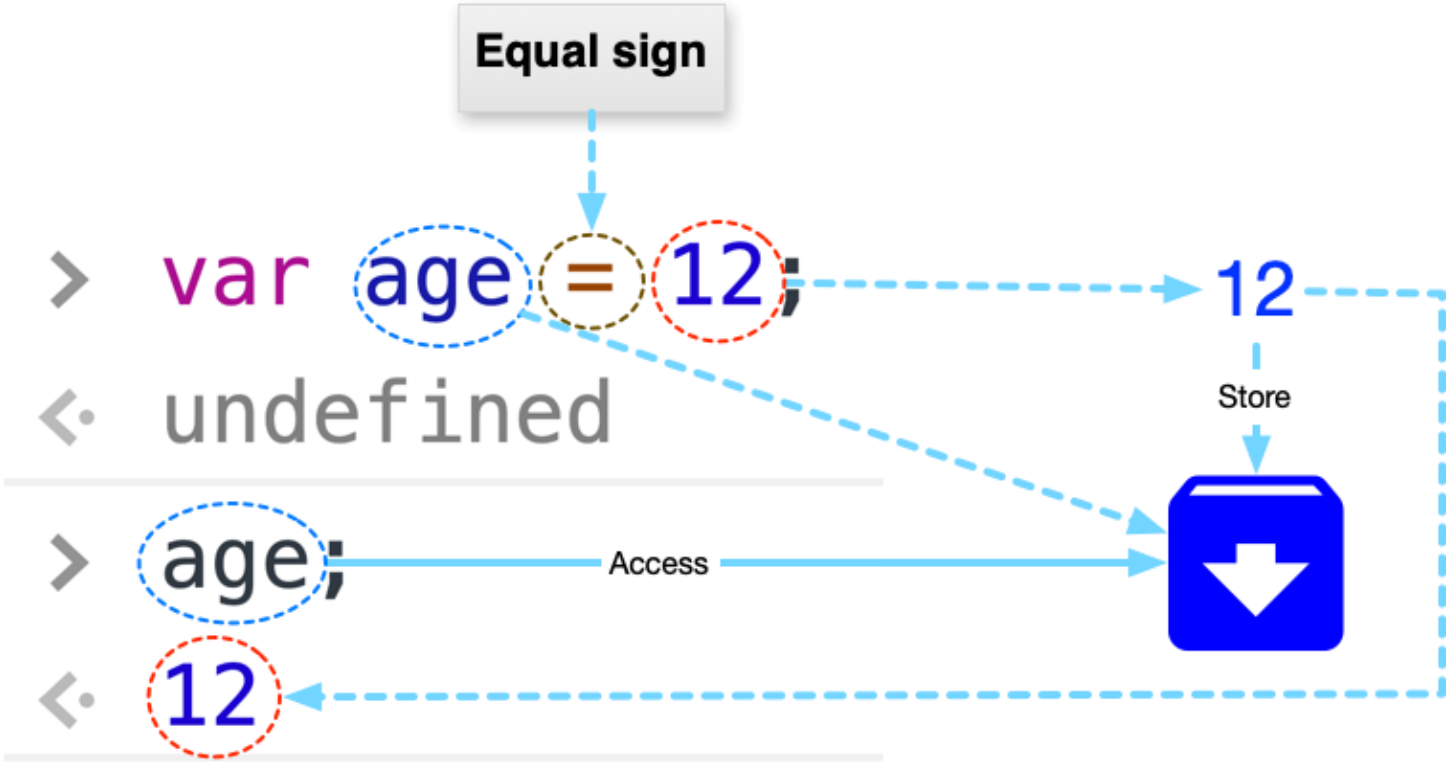
- JavaScript lets you give names to values using *variables*
- You can think of a variable as a box that you can fit one thing in
- If you put something else in it, the first thing goes away.



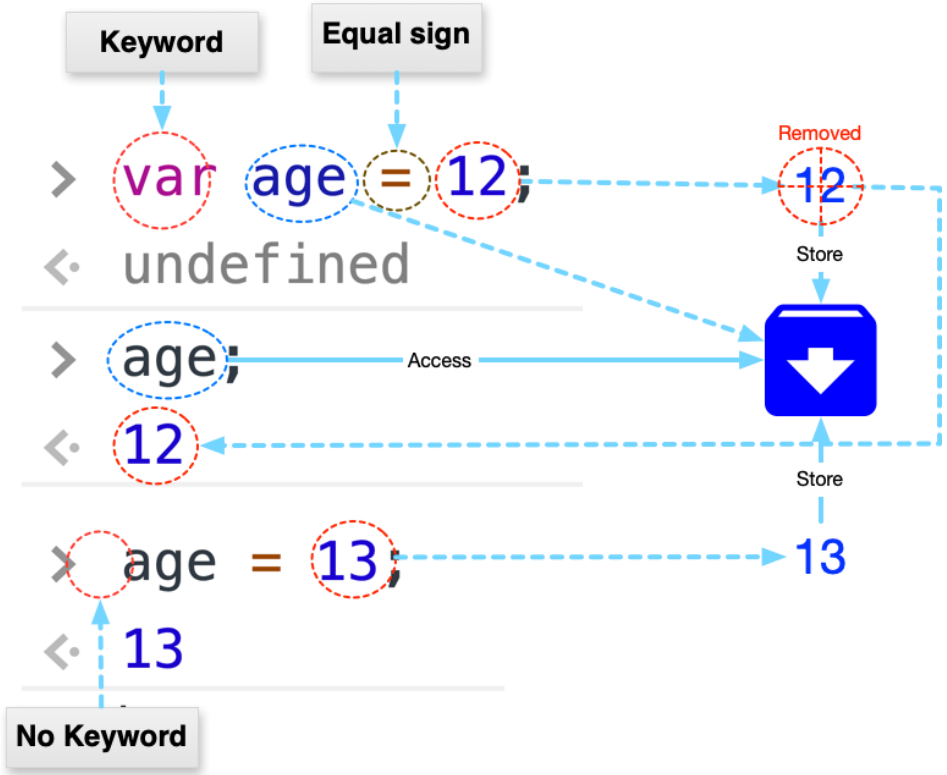
Declare a variable



Initialize a variable



Update a variable



Naming Variables

Warning

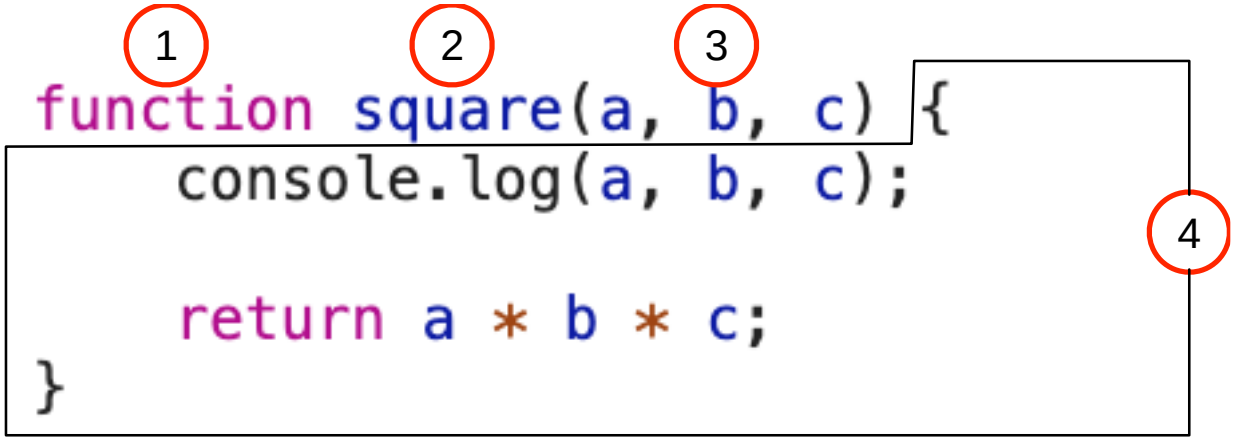
Be careful with your variable names, because it's easy to misspell them

fresher ≠ Fresher

Follow camelCase when naming variables

Function declarations

- A **function definition** consist of 4 elements:



Calling functions

- *Defining* a function does not *execute* it. Defining it simply names the function and specifies what to do when the function is called.
- **Calling** the function actually performs the specified actions with the indicated parameters.
- For example, if you define the function **square**, you could call it as follows:

```
> square(2, 3, 5)
  2 3 5
<· 30
```

Calling functions

- For example, if you define the function **sum** that take 3 parameters, you could call it as follows:

```
function sum(a, b, c) {
    return a + b + c;
}

// call function sum
// and pass a = 1, b = 2, c = 3 to it
sum(1, 2, 3);

6
```

Locating DOM elements using selectors

- The Selectors API provides methods that make it quick and easy to retrieve Element nodes from the DOM by matching against a set of selectors.
- This is much faster than past techniques, wherein it was necessary to, for example, use a loop in JavaScript code to locate the specific items you needed to find.

Locating DOM elements using selectors

- querySelector(): Returns the first matching Element node within the node's subtree. If no matching node is found, null is returned.
- querySelectorAll(): Returns a NodeList containing all matching Element nodes within the node's subtree, or an empty NodeList if no matches are found.

Locating DOM elements using selectors

- You can also query by ID. For example:

```
var el = document.querySelector( "#main, #basic, #exclamation" );
```

- After executing the above code, el contains the first element in the document whose ID is one of main, basic, or exclamation.
- You may use any CSS selectors with the **querySelector**() and **querySelectorAll**() methods.

Locating DOM elements using selectors

- The selector methods accept one or more comma-separated selectors to determine what element or elements should be returned.
- For example, to select all paragraph (p) elements in a document whose CSS class is **either** warning or note, you can do the

```
var special = document.querySelectorAll( "p.warning, p.note" );
```

Using Web Events

- You might also see a pattern like this in your code:

```
<button onclick="bgChange()">Press me</button>
```

```
function bgChange() {
  const rndCol = 'rgb(' + random(255) + ',' + random(255) + ',' + random(255) + ')';
  document.body.style.backgroundColor = rndCol;
}
```

Using Web Events

- The earliest method of registering event handlers found on the Web involved **event handler HTML attributes** (or **inline event handlers**)
- You could also insert JavaScript directly inside the attribute, for example:

```
1 | <button onclick="alert('Hello, this is my old-fashioned event handler!');">Press me</button>
```

Session 2

SEARCH ENGINES

Introduction

- Many people use a search engine to find specific businesses or content on the web.
- A search engine is an online tool that searches for websites based on keywords entered by a user
- Search engines provide a search form where users type keywords to use in the search.
- Search engines use robots
- Popular search engines include Google.com, Bing.com, Ask.com, and Yahoo.com

Search engines

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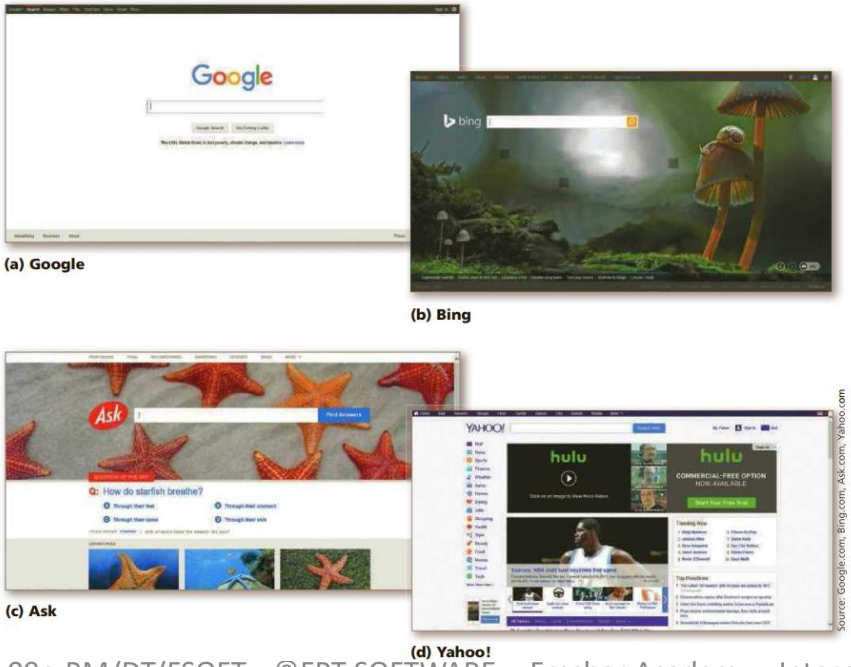


(a) Google

(b) Bing

(c) Ask

(d) Yahoo!

Search Engine Optimization

- Search engine optimization (SEO) is the process of improving the amount of traffic to your website by improving the ranking of your site in search engine results pages (SERPs).
- Optimizing a website involves editing the content and HTML code in the webpage to increase its relevant keywords and to remove barriers to the page indexing functions of search engines.

Search Engine Optimization

- Effective SEO involves several key tasks. First, brainstorm keywords that describe your business and write them down. Use these keywords within your domain name, page titles, heading elements, and meta tags.
- Research your competitors and note their keywords.
- Use the company name within the title element, up to 70 characters. This helps identify the business and is commonly displayed in the SERP. Give focus to two keywords within your meta description and consistently use these keywords within a description meta tag across your webpages. Your description meta tag should not exceed 160 characters.
- Optimize your images. Because robots cannot read text on images, be sure to use keywords within the alt text of your images.

Meta Tags

- The meta tag name derives from the word, metadata, which is information about data.

```
<meta charset="utf-8">
```

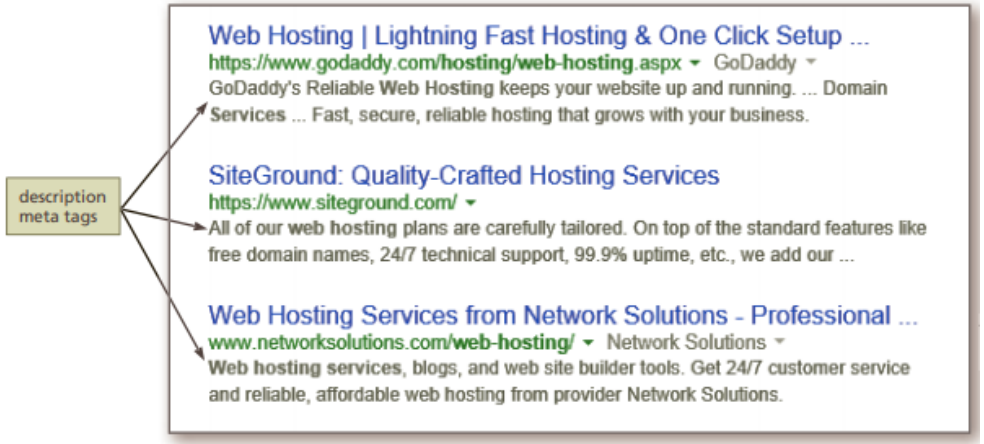
- Besides specifying the character encoding, the meta tag also allows you to specify the author, a description, and keywords for the webpage through the use of the name and content attri

```
<meta name="author" content="Jordan Wells">
```

Description meta-tag

- The description is what some search engines add below your webpage URL in the search results to describe the conter

```
<meta name="description" content="Forward Fitness Club is
an elite fitness center dedicated to helping our clients
achieve their fitness and nutrition goals.">
```



Keywords Meta

- Keywords is the value for the name attribute.
- The content attribute specifies keywords that describe the website content, in this case, fitness, gym, group fitness, and r

```
<meta name="keywords" content="fitness, gym, group fitness,
nutrition">
```

Practice time

- Add a Description Meta Tag to a Webpage

```
    <meta name="description" content="Forward Fitness Club is an elite fitness
center dedicated to helping our clients achieve their fitness and nutrition
goals. We provide state-of-the-art fitness equipment, group fitness classes, and
nutrition planning.">
```

- Modify Alt Text on a Webpage

```
<img src="images/ffc_logo.png" alt="Forward Fitness Club logo">
```

Session 3

PUBLISHING A WEBSITE

Domain name

- A domain name is the server name portion of a URL.
- You can use the domain name of the server on which you publish your webpages
- A unique domain name can make it easier for visitors to find your webpages.
- The .com top-level domain (TLD) name is preferred for businesses.

Common Top-Level Domains

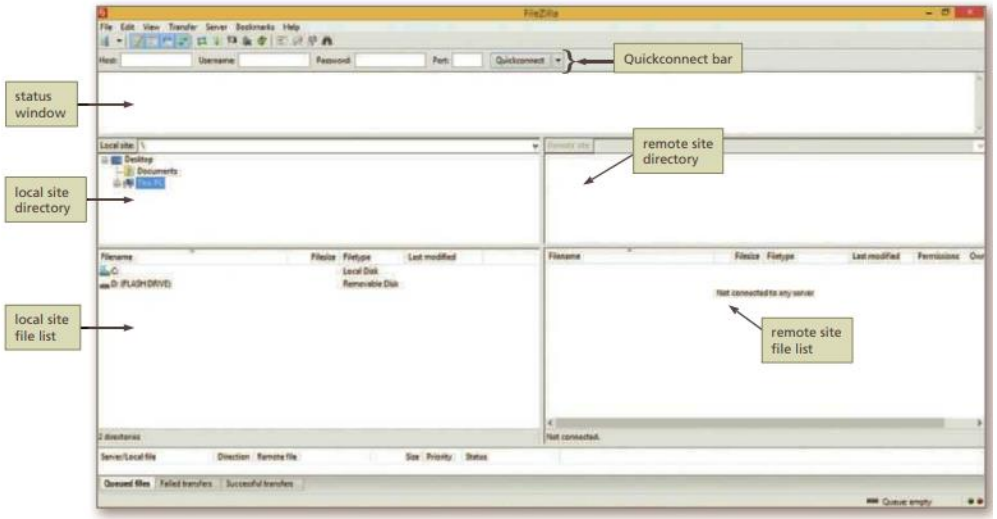
Name	Original Purpose
.com	Commercial
.biz	Business or commercial
.net	Network-related domains
.org	Non-profit organizations
.edu	Educational institutions
.gov	Restricted use by the United States government
.mil	Restricted use by the United States military

Website Hosting

- The next step in publishing your website is to find a hosting service.
- Whether you choose to use your ISP to host your website, to use a web hosting service, or to set up your own web server, you need to answer the following questions:
  - ✓ What is the total cost?
  - ✓ How much space is available to you?
  - ✓ How fast is the connection speed?
  - ✓ How much total bandwidth transfer is available?
  - ✓ Is technical support provided?
  - ✓ Are tracking services provided?
- After you have selected a web hosting service, you need to transfer your files tothe host's server

FTP Clients

- Like other types of software, some FTP clients are free and some are for purchase.
- FileZilla is a free FTP option, available for download at filezilla-project .org.



Practice time

- Registration a free domain and publish your website.
- https://www.000webhost.com/

Lesson Summary

Thank you