

Deployment

Website Development 1

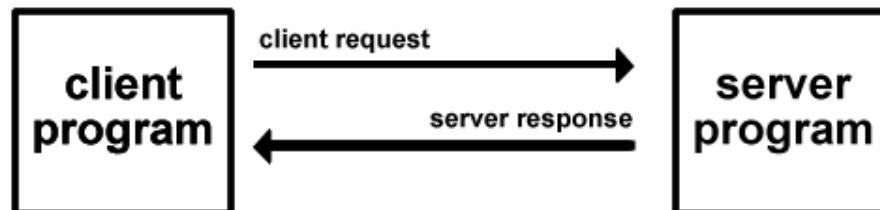
Overview

- Web Servers
- Web Hosting
- Domain Names

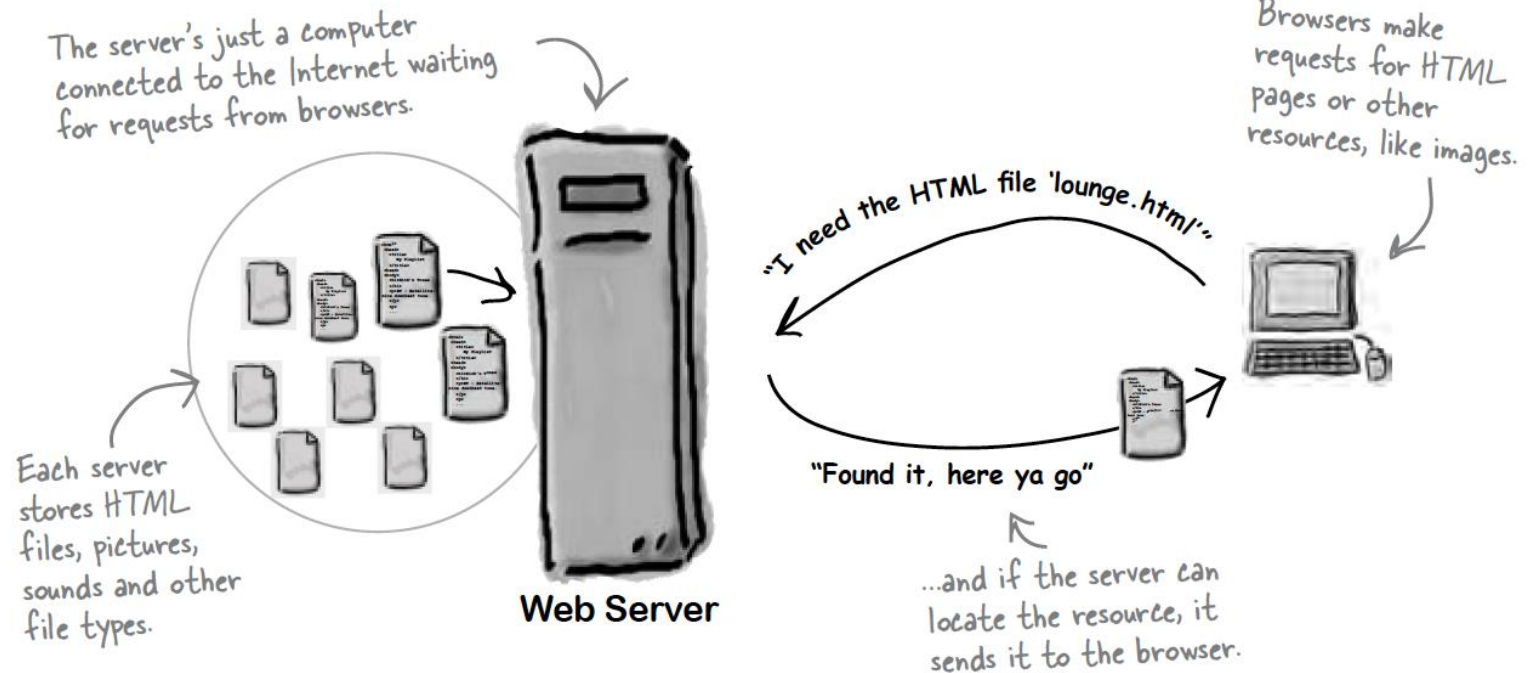
Remember this?

Clients and Servers

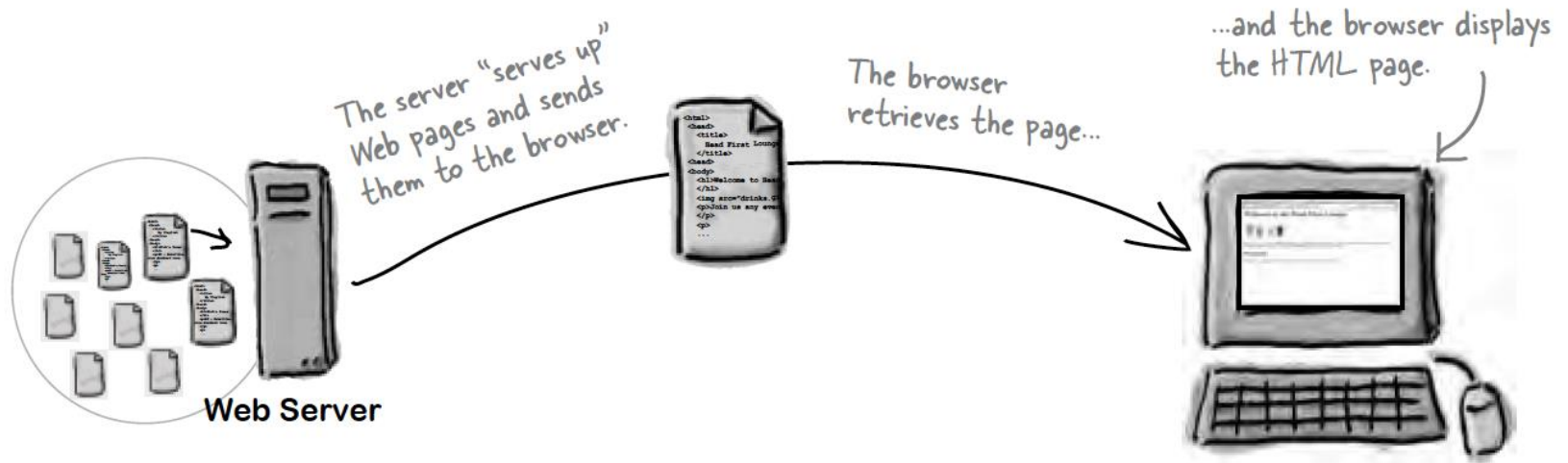
- Client/Server Computing:
 - The interaction between two programs when they communicate across a network.
 - A program at one site sends a request to a program at another site and awaits a response.
 - The requesting program is called a client; the program satisfying the request is called the server.



Role of web Server



Role of Client



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Web hosting

- Web hosting means **storing your web site on a public server.**
- Web hosting normally includes **email services.**
- Web hosting often includes **domain name registration**
- To get your pages on the Web, you need a server that actually lives on the Web full-time.

Web hosting

- For any website to be available online, it has to be stored on some server / computer that is connected to the Internet. That server where you store your website is your host.
- The host could be anywhere in the world but it has to have these simple things:
 - Power
 - Internet connection
 - Dedicated IP address

Web hosting

- Web hosting companies offer different solutions in relation to the disk space and monthly traffic a website will use
- **Disk space:**
 - Most websites average around 150 MB, but websites with large amounts of audio/video content or storing large amounts of data will need more.
- **Monthly traffic (bandwidth):**
 - Most sites use 5GB or less each month; however, sites with a lot of visitors will use more.

<https://www.hostingmanual.net/how-much-bandwidth-and-disk-space-really-need/>

Web hosting

- Web hosting can be:
 - Free
 - Shared
 - Dedicated
 - Collocated

Web hosting - free

- Some service providers offer free web hosting.
- Free web hosting is best suited for small sites with low traffic, like family sites or sites about hobbies. It is not recommended for high traffic or for real business. Technical support is often limited, and technical options are few.
- Very often you cannot use your own domain name at a free site. You have to use a name provided by your host like <http://www.freesite/users/~yoursite.htm>. This is hard to type, hard to remember, and not very professional.

Good:	Bad:
Low cost. It's free.	No domain names.
Good for family, hobby or personal sites.	Few, limited, or no software options.
Free email is often an option.	Limited security options.
	Limited or no database support.
	Limited technical support.

Web hosting - shared

- Shared hosting is very common, and very cost effective.
- With shared hosting, your web site is hosted on a powerful server along with maybe 100 other web sites. On a shared host each web site can have its own domain name.
- Shared solutions often offer multiple software solutions like email, database, and many different editing options.
Technical support tends to be good.

Good:	Bad:
Low cost. Cost is shared with others.	Reduced security due to many sites on one server.
Good for small business and average traffic.	Restrictions on traffic volume.
Multiple software options.	Restricted database support.
Own domain name.	Restricted software support.
Good support	

Web hosting - dedicated

- With dedicated hosting your web site is hosted on a dedicated server.
- Dedicated hosting is the most expensive form of hosting. The solution is best suited for large web sites with high traffic, and web sites that use special software.
- You should expect dedicated hosting to be very powerful and secure, with almost unlimited software solutions.

Good:	Bad:
Good for large business.	Expensive.
Good for high traffic.	Requires higher skills.
Multiple domain names.	
Powerful email solutions.	
Powerful database support.	
Strong (unlimited) software support.	

Web hosting - collocated

- Collocation means "co-location". It is a solution that lets you place (locate) your own web server on the premises (locations) of a service provider.
- This is pretty much the same as running your own server in your own office, only that it is located at a place better designed for it.
- Most likely a provider will have dedicated resources like high-security against fire and vandalism, regulated backup power, dedicated Internet connections and more.

Good:	Bad:
High bandwidth.	Expensive.
High up-time.	Requires higher skills.
High security.	Harder to configure and debug.
Unlimited software options.	

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Domain names

- A domain name is a unique name for a web site, like **w3schools.com**.
- Domain names must be registered. When domain names are registered they are added to a large domain name register, and information about your site - including your internet IP address - is stored on a DNS server.
- DNS stands for Domain Name System. A DNS server is responsible for informing all other computers on the Internet about your domain name and your site address.

Domain names

- **Registering a Domain**
- Domains can be registered from domain name registration companies such as <https://www.iedr.ie/>
- These companies provide interfaces to search for available domain names and they offer a variety of domain name extensions that can be registered at the same time.
- Domain Name Registration provides registration services for .com .net .org .biz .info .us .nu .ws .cc and .tv domains.

Domain names

- **Sub Domains**
- Most people are unaware but they already use sub domains on a daily basis. The famous "www" of the World Wide Web is the most common example of a sub domain.
- Common examples of sub domains used on the internet are `http://store.apple.com` and `http://support.microsoft.com`.
- Sub domains can be requested from your web hosting provider or created by yourself if you manage your own DNS server.

Email accounts

- Hosting solutions should include email accounts for each person in your company.
- Email addresses should appear something like this:

john@mycompany.com

john.doe@mycompany.com

jdoe@mycompany.com

000webhost

- We will deploy a website using 000webhost in our practical labs this week
- Free web hosting site that offers:
 - 1GB disk space
 - 10GB bandwidth
 - Free domain (in the format `yourname.000webhostapp.com`)