

# Deployment

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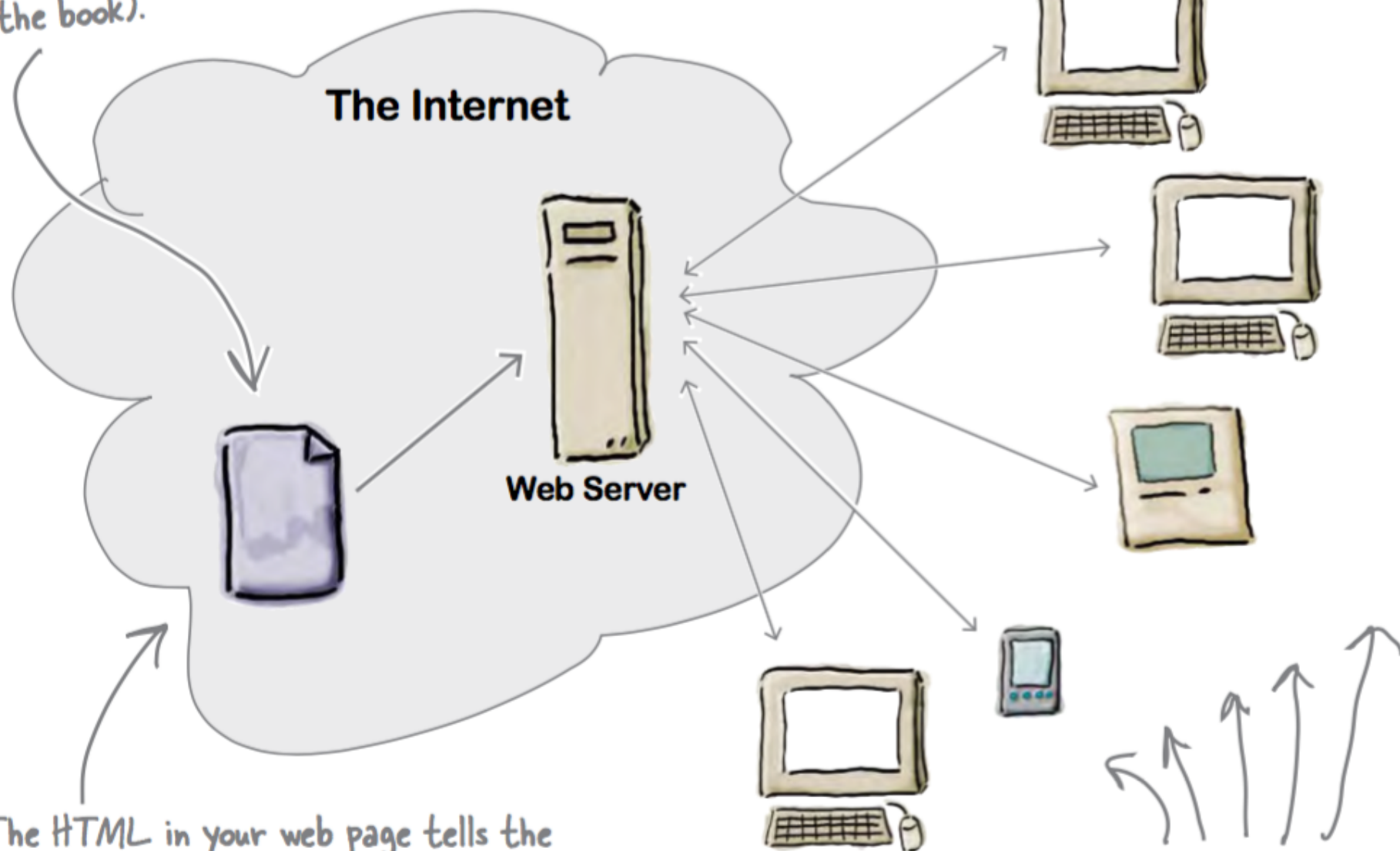
# Deployment Issues

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- Clients & Servers
- Hosting Providers
- Domain Names
- Transferring the Sites Files
- HTTP
- Absolute & Relative Paths

To make web pages, you create files written in the HyperText Markup Language (HTML for short) and place them on a web server (we'll talk about how to get your files on a server later in the book).

Once you've put your files on a web server, any browser can retrieve your web pages over the Internet.

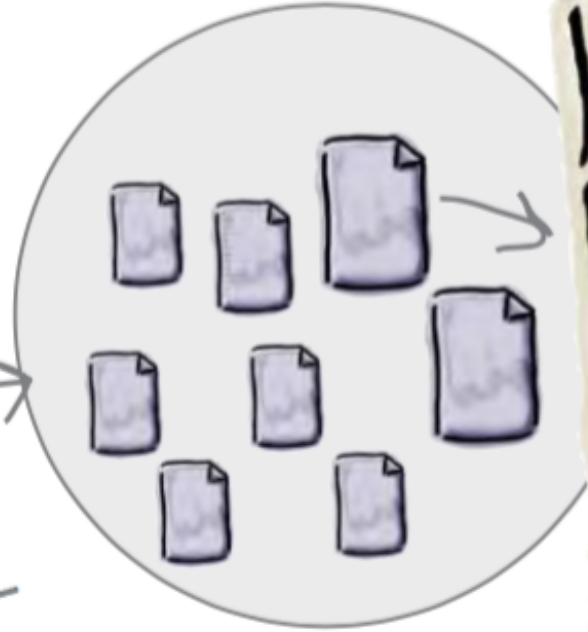


The HTML in your web page tells the browser what it needs to know to display your page. And, if you've done your job well, your pages will even display well on cell phones and mobile devices, and work with speech browsers and screen magnifiers for the visually impaired.

And there are a lot of PCs and devices connected to the Internet all running web browsers. More importantly, there are friends, family, fans, and potential customers using those devices!

The server's just a computer connected to the Internet waiting for requests from browsers.

Each server stores HTML files, pictures, sounds and other file types.



**Web Server**

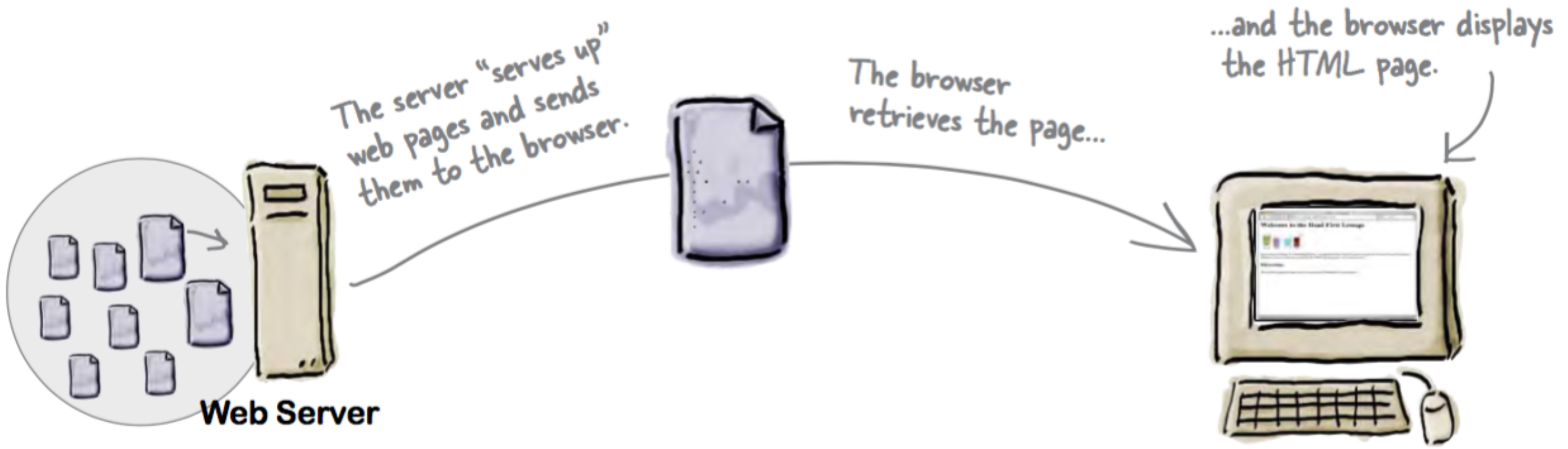
"I need the HTML file lounge.html!"

"Found it, here ya go"

...and if the server can locate the resource, it sends it to the browser.

Browsers make requests for HTML pages or other resources, like images.







# Hosting Company

- To get your pages on the Web, you need a server that actually lives on the Web full-time.
- Find a hosting company and let them worry about the details of keeping a server running.



# Hosting Company Checklist

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- **Technical support:** Does the hosting company have a good system for handling your technical questions?
- **Data transfer:** This is a measure of the amount of pages and data the hosting company will let you send to your visitors during a given month
- **Backups:** Does the hosting company regularly make a backup of your pages and data that can be recovered in the event that the server has a hardware failure?
- **Domain names:** Does the hosting company include a domain name in its pricing
- **Reliability:** Most hosting companies report keeping websites up 99% of the time or better.
- **Add-ons:** Does your package include other goodies such as email addresses, forums, or support for scripting languages

# Domain Names

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This part is the domain name.

www.starbuzzcoffee.com

This part is the name of a specific server IN the domain.

There are different domain "endings" for different purposes: .com, .org, .gov, .edu; and also for different countries: .co.uk, .co.jp, and so on. When choosing a domain, pick the one that best fits you.



# ICANN

- Domain names are controlled by a centralized authority (ICANN) to make sure that only one person at a time uses a domain name.
- Hosting Companies will often throw in your domain name registration with one of their package deals.
- Register of domain name registration companies:
  - <https://www.internic.net/regist.html>

The image shows two overlapping browser screenshots. The top screenshot is of the ICANN website (https://www.icann.org) with a dark blue header and navigation menu. The main content area features a large blue banner for 'Open Now' regarding the ICANN55 Marrakech event, which is held from 5-10 March 2016. To the right of this banner is a graphic for 'ICANN55 MARRAKECH 5 - 10 MARCH 2016' with a 'Register today for ICANN55' call to action. Below the banner are sections for 'News and Announcements' (featuring an 'APPLY TODAY' graphic and a link to 'Experts Wanted for New gTLD Program Review') and 'Quicklinks' (a vertical list of blue buttons for various services like Quarterly Reporting, New gTLDs, etc.). The bottom screenshot is of the InterNIC Registrar Listing page (https://www.internic.net/regist.html), showing the 'The Accredited Registrar Directory' section with links for alphabetical listing, location-based listing, and language-based listing.

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**START YOUR DOMAIN NAME SEARCH HERE.**

**SEARCH**

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[VIEW EMAIL PLANS](#)



## Get a .design for \$22.99

Save \$15 on .design domains for a limited time. Find yours today.

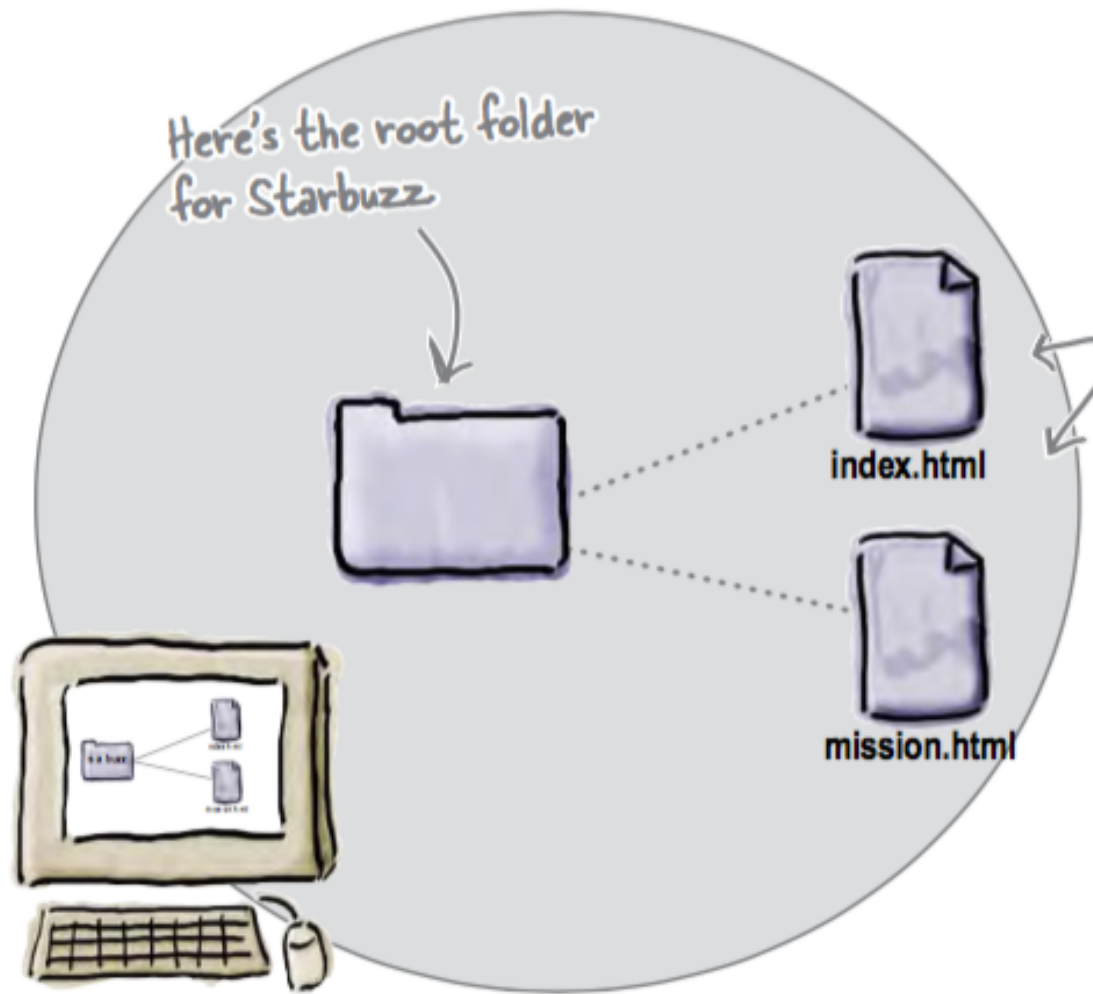
[VIEW ALL SALES](#)

## Use your domain with your favorite service.

Website builders, portfolio tools, personal homepages... quickly connect your domain and start building.







Remember your Starbuzz pages? There are two: the main page (index.html) and the page that contains the mission statement (mission.html).



Here's the new web server. The hosting company has already created a root folder for you, which is where all your pages are going to go.

Your computer, where the Starbuzz pages currently live



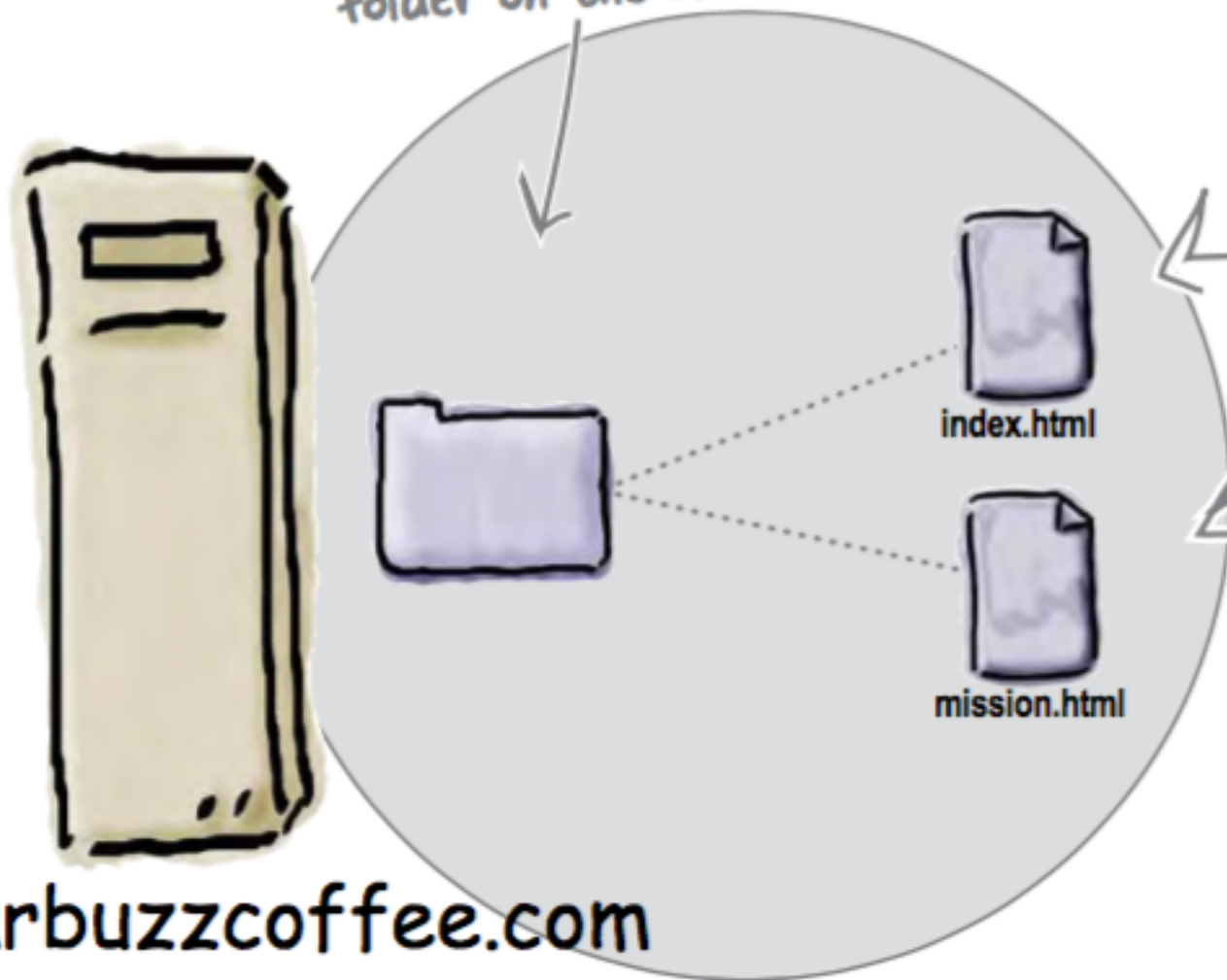
Here's the new website name. We're using the starbuzzcoffee.com domain (since we beat you to it, you'll have to use your own domain name instead).

[www.starbuzzcoffee.com](http://www.starbuzzcoffee.com)

The files are sitting on your computer.



Here's the root folder on the server.



You need to transfer them to the server, and then they'll be "live" on the Web.

[www.starbuzzcoffee.com](http://www.starbuzzcoffee.com)

# Transferring Files

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- Many Different Options:
  - FTP
  - Dropbox
  - WebDav
  - Git Push
  - Email Attachments
  - Etc...

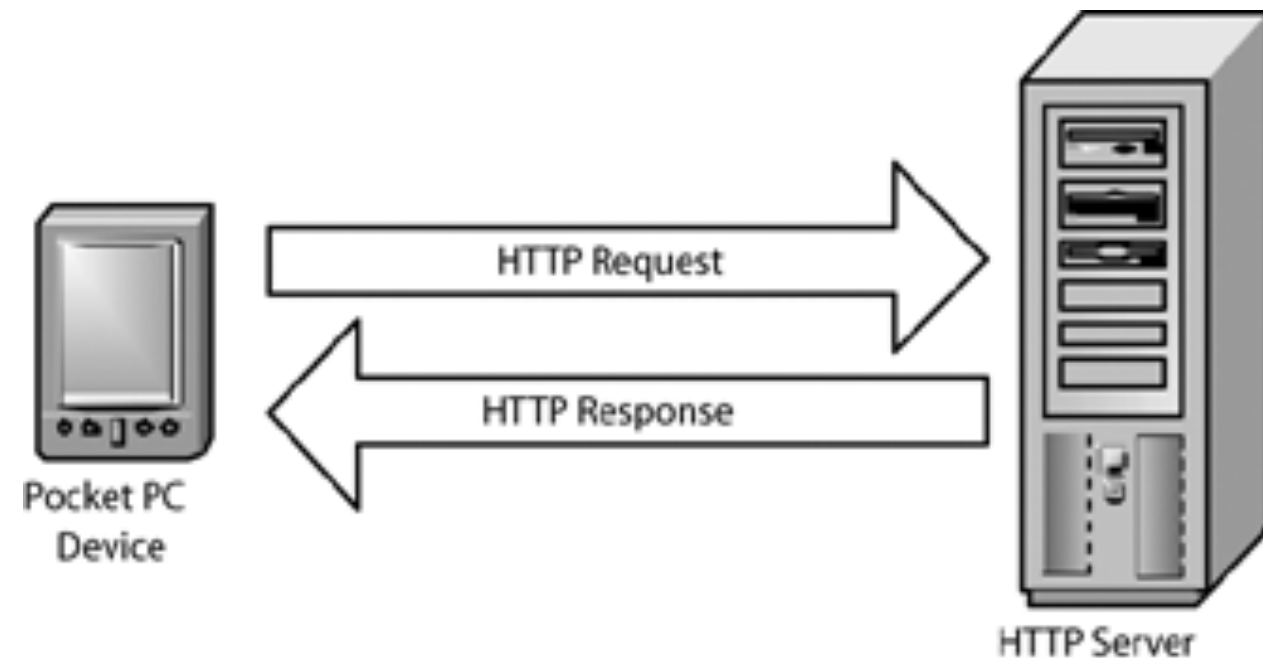


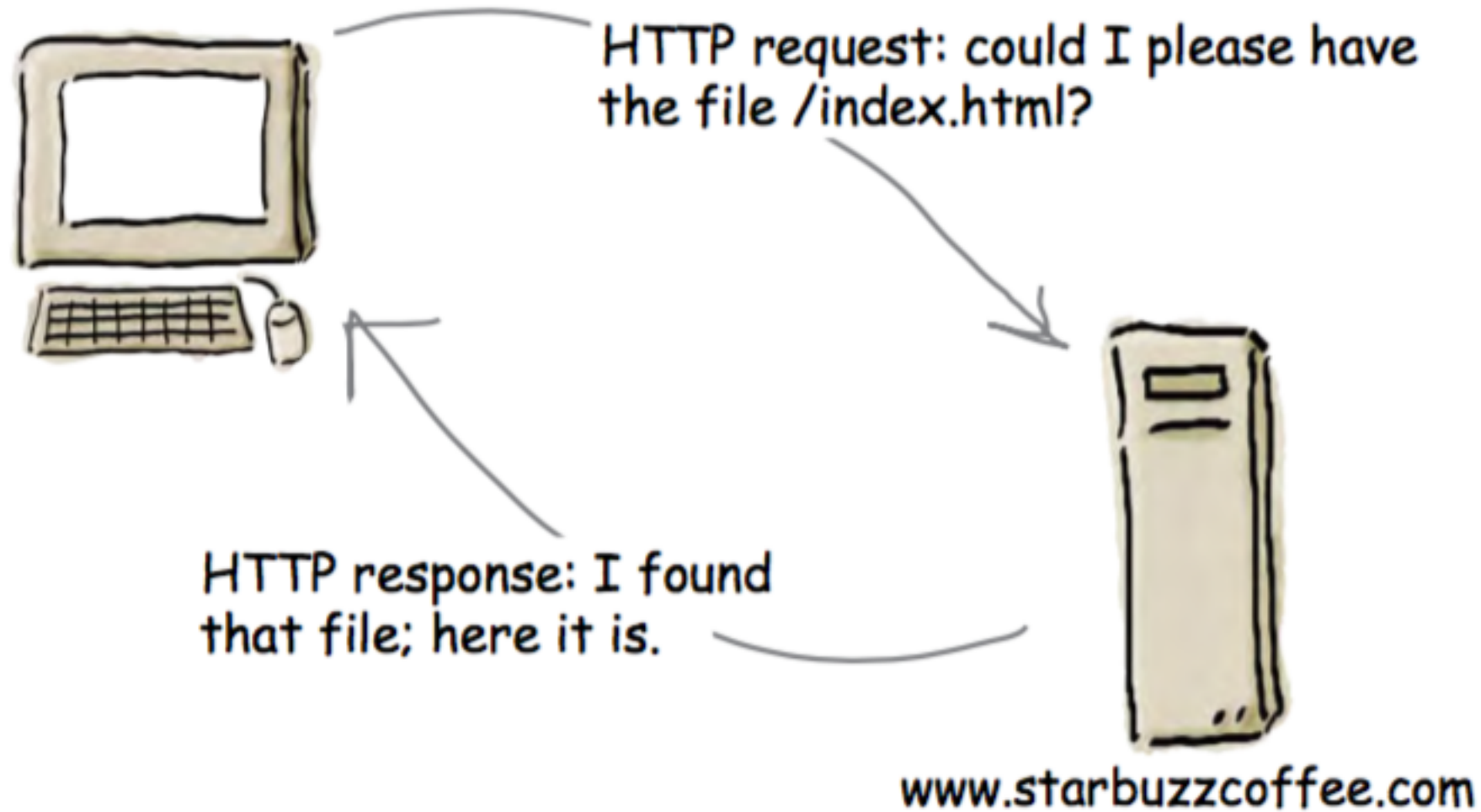


# HyperText Transfer Protocol - HTTP

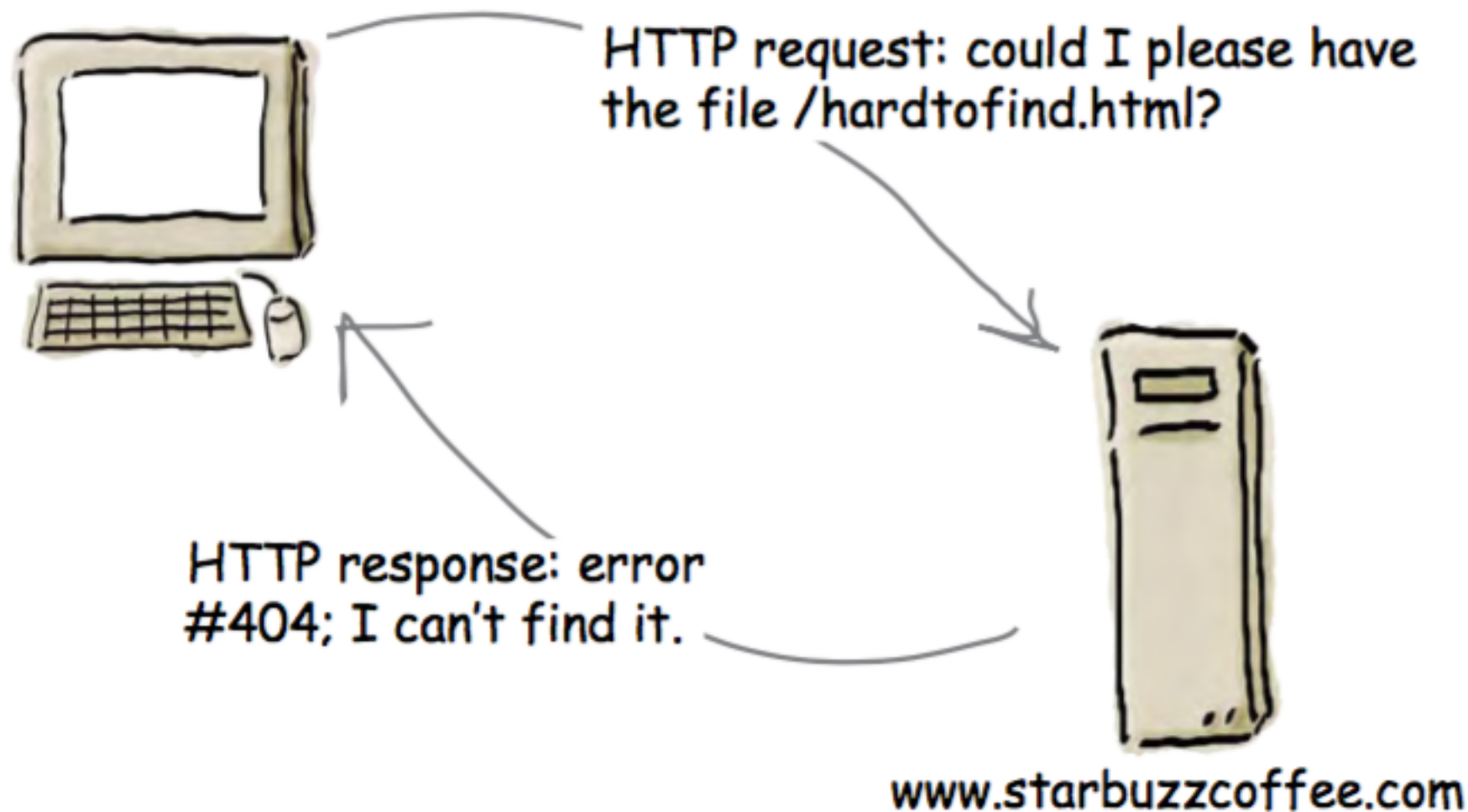
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- One Deployed - the site will be 'served' over HTTP to client browsers
- An agreed-upon method (a protocol) for transferring hypertext documents around the Web.
- While "hypertext documents" are usually just HTML pages, the protocol can also be used to transfer images, or any other file that a web page might need.





- Each time you type a URL into your browser's address bar, the browser asks the server for the corresponding resource using the HTTP protocol.
- If the server finds the resource, it returns it to the browser and the browser displays it



- If the resource can't be found, you'll get the familiar "404 Error," which the server reports back to your browser.

# Absolute & Relative Paths

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- A Path is a series of folder or folders that specify a route to a specific file within a given folder tree structure.
  - An Absolute path always starts at the 'root', which is always denoted by the / symbol
- A Relative path traces a route from the current director to a specific file. I may comment with:
  - *▪ start at the current directory*
  - *▪▪ go up one level*
  - *folder-name - start with the 'folder-name' in the current directory.*

# Relative Paths

First, you need to go up one folder. How do you do that? With a "..". That's right, two periods. Go with it, we'll explain in a sec.

Separate all parts of the path with a "/".

Finally, you have the filename.

Pronounce ".." as "dot dot".

`../lounge.html`

Putting it all together...

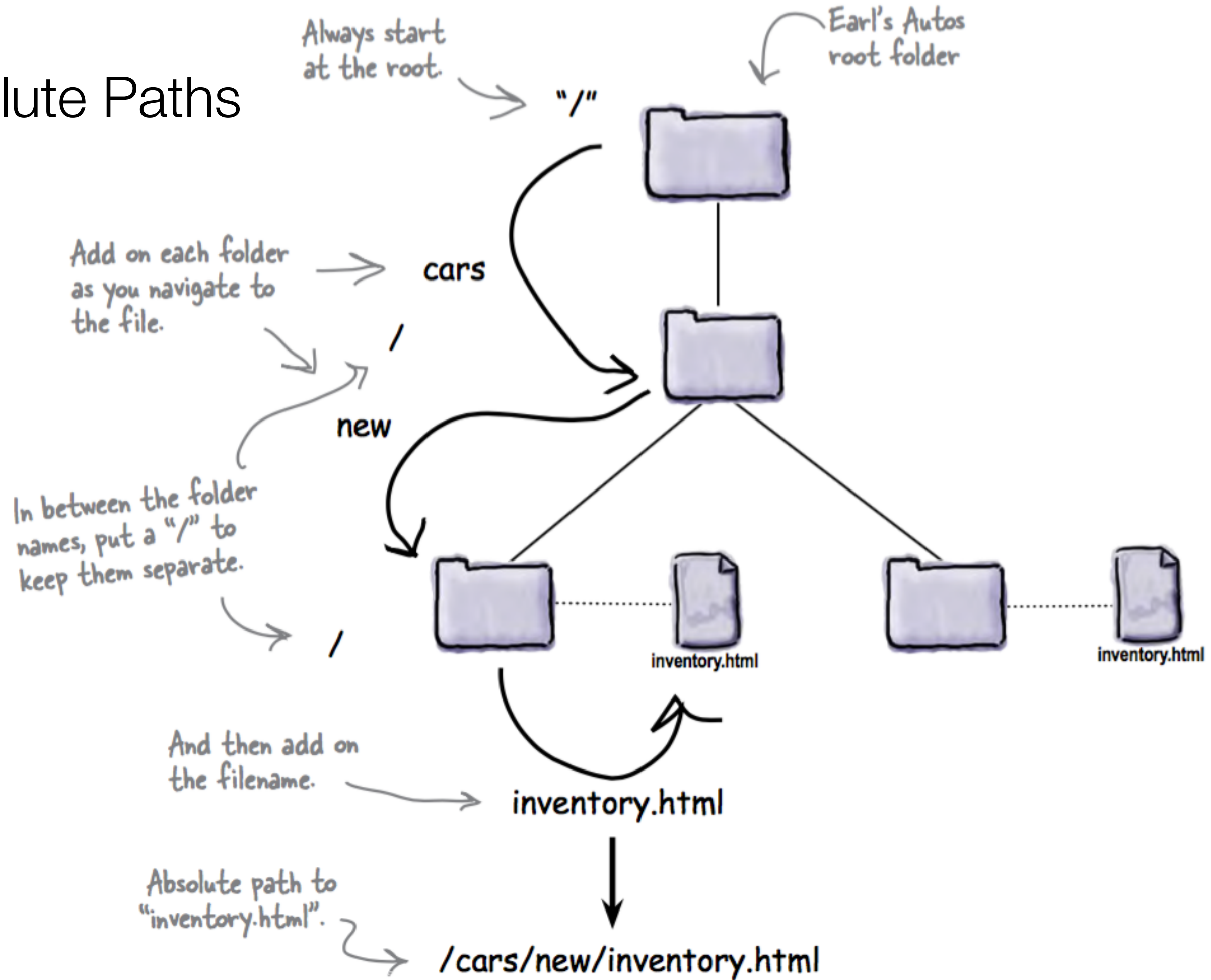
`<a href="../lounge.html">Back to the Lounge</a>`

Now when you click on the link, the browser will look for the "lounge.html" file in the folder above.

`../..` Go up 2 levels

`../..`/images/iot Go up 2 levels and then down into images and into iot

# Absolute Paths

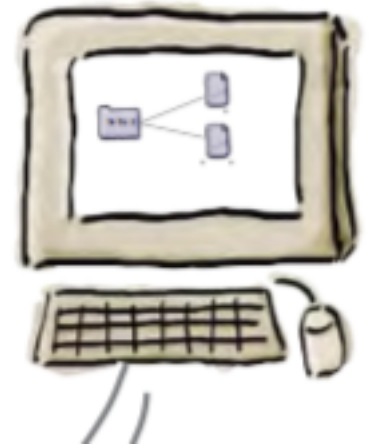




# Paths on Local Web Sites

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The files are sitting  
on your computer.



- When a site is loaded directly into a browser on a local machine (as you have been doing so far):
  - You cannot reliably use absolute paths
  - If you do, then the site will be tied to the specific disk structure on your computer.
  - E.g. `‘/images/main.png’` may translate to
  - `‘C:\MyDocuments\Web\project\images\main.png’`
- This site will not be usable on other computers.

# Paths for Deployed Sites

- You **can** reliably use absolute paths
- They will resolve to the Root folder of your project
- This can be more convenient to manage the sites links
- However, the site can only then be browsed via a server - it cannot be loaded from disk directly

