

Building your own website with HTML /CSS

Welcome to this workshop
on creative coding.

Our goal today is to gain a basic understanding of the internet and the web, learn some basic HTML/CSS, and make something from scratch.

- 00 What is an internet?
- 01 HTML
- 02 Building a webpage
- 03 CSS
- 04 Styling that webpage
- 05 Using the Inspector
- 06 What's *next*?

00

What is an internet?



The internet:
A series of tubes

Connecting people and their devices across vast distances with each other and with content

The internet is a *collection of technologies* working in tandem to enable the transfer of *digital information* over vast distances.

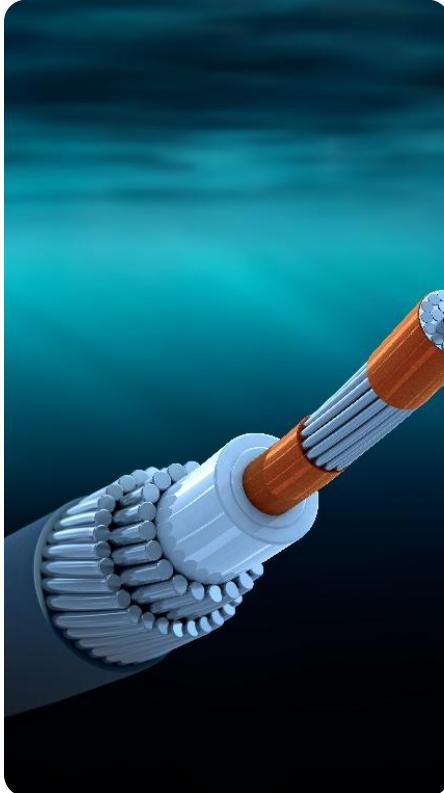
A *collection of technologies* because it relies on protocols and standards like HTTP, physical infrastructure like routers and cables, and software like browsers.

Digital information because encoding images, video, sound, and 3D space for telecommunications emerged and superceded analog data transfer.



End-user

Lorem ipsum dolor sit amet,
consectetur adipiscing elit.



Connections

Lorem ipsum dolor sit amet,
consectetur adipiscing elit.



Data Centers

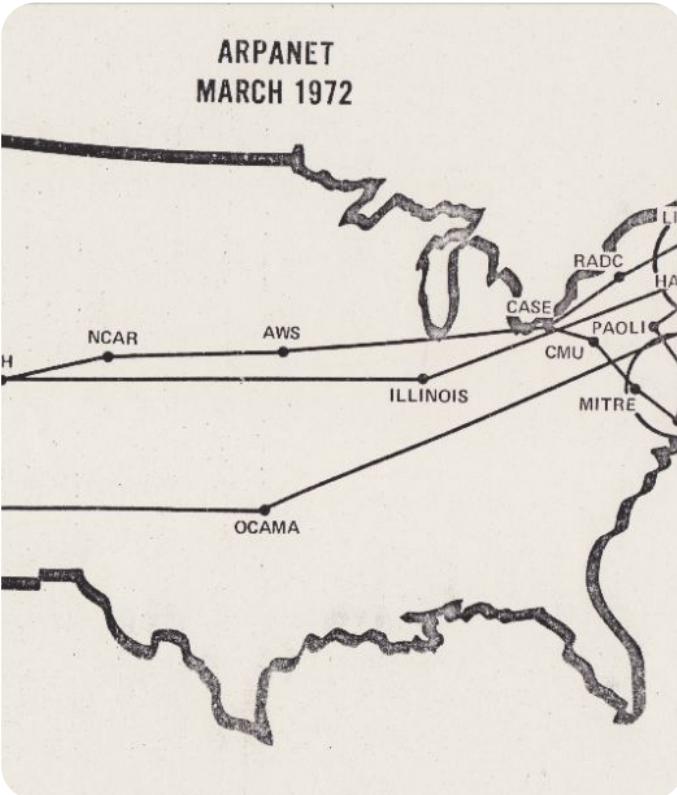
Lorem ipsum dolor sit amet,
consectetur adipiscing elit.

The internet: Not-so-humble Origins

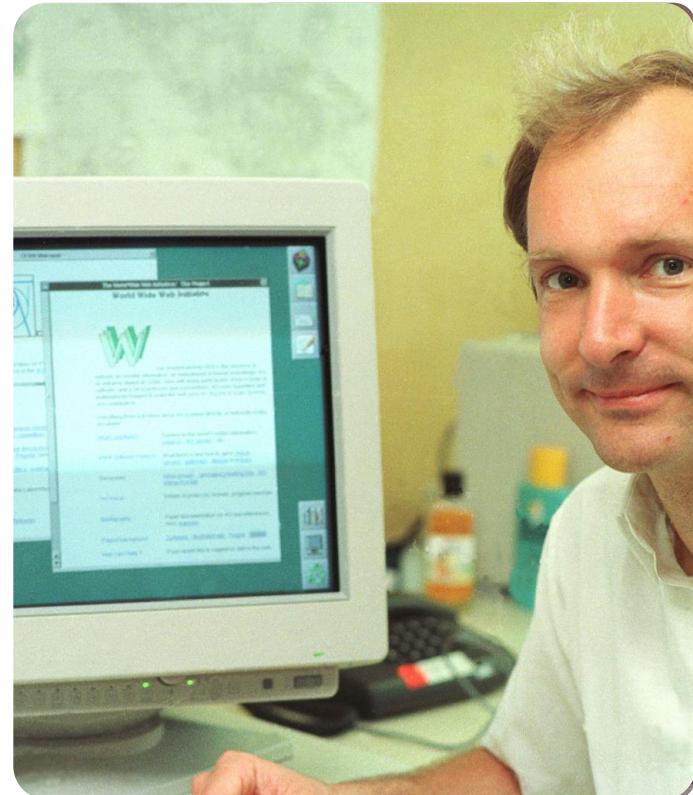
The early internet's emerged from government and military research

Defense Advanced Research Projects Agency (DARPA), a research arm of the Department of Defence, created the first packet switched network, ARPANET, an early precursor to the internet whose core ideas are still used today.

Hypertext, and along with it HTTP, HTML, and URLs, was invented at CERN.



ARPANET
U.S. Advanced Research Projects Agency Network, developed to connect academic institutions with help from Stanford, UCLA, and the NSF.



Tim Berners-Lee
Inventor of HTTP and the URL at CERN in 1989.

What happens when you type google.com?

Request



DNS Resolution



Connection



Response



The recreation, distribution, re-intepretation, digitization, virtualization, distillation of an object into a new medium. Because digital is the medium of computing and the defacto material of 21st century life, and because limitless, low effort distribution is a core capability of this new material, REPRODUCTION is a central tenet of digital and new media art.

What happens when you type google.com?

Request



DNS Resolution



Connection



Response



One of the other essential qualities imbued upon work which is made to be digital is its interactivity; you lose texture, depth, spatiality, warmth, wetness, hardness, etc. but you gain responsivity and feedback, and control. Interaction is depth; many innovations today are merely changes in interaction, not form.

What happens when you type google.com?

Request



DNS Resolution

Connection



Response



The logics of computation are logics of control; hence early work in the space fell under the new term cybernetics and dealt with concepts of automation, sustainability, homeostasis, and politics. Early computing existed in military research labs and academia; automation was a byproduct of the military industrial complex.

What happens when you type google.com?

Request



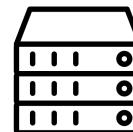
DNS Resolution



Connection



Response



Computing is one of the core features of post-modern life, whether through direct inclusion via personal and mobile computing or through the invisible ways technology has transformed physical life on Earth. Whereas modernity dreamed an idealized modern world, full of values and the logical extension of enlightenment thinking, post-modernity is its reality.

Further Reading

An extremely in-depth explanation

alex/what-happens-when



An attempt to answer the age old interview question
"What happens when you type google.com into your
browser and press..."

72

Contributors

16

Used by

37k

Stars

4k

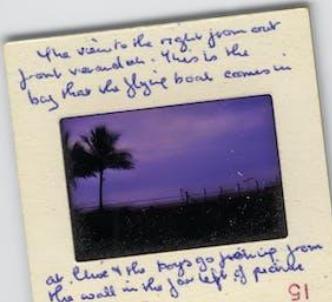
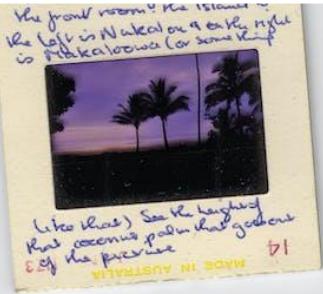
Forks

<https://github.com/alex/what-happens-when>



01

Hypertext Markup Language



Hypertext Markup
Language

Is Not

A

Programming Language

What is markup?

Markup adds metadata, or information *about* the text, to the text.



What is markup?

Markup adds metadata, or information *about* the text, to the text.

```
<head>
    <!-- title of the page that appears at the top of the window/tab
        should be changed per page
    -->
    <title>Kevin's Progress Blog</title>
    <!-- include our CSS files -->
    <link rel="stylesheet" href="global.css" />
</head>

<body>
<main>
    <h1>Welcome.</h1>
    <p>
        This is Kevin's progress blog diving into the work and process of
        <i>Creative Coding: Methods and Frameworks.</i>
    </p>
    <br />
    <ul class="grid">
        <li class="borders">
            
            <a href="index.html">Home</a>
        </li>
        <li class="borders">
            
            <a href="23-10-02.html">Week 2: Learning HTML & CSS</a>
            <p>October 2nd, 2023</p>
        </li>
        <li class="borders">
            
            <a href="23-10-02.html">Week 2: Learning HTML & CSS</a>
            <p>October 2nd, 2023</p>
        </li>
    </ul>
</main>
</body>
```

What are tags?

In HTML, the markup is done using **tags**.

```
<body>
  <main>
    <h1>Welcome.</h1>
    <p>
      This is Kevin's program.
      <i>Creative Coding:</i>
    </p>
    <br />
    <ul class="grid">
      <li class="borders">
```

What are tags?

Markup

attribute
content



Week 2: Learning HTML & CSS

opening tag attribute value closing tag

Result

Week 2: Learning HTML & CSS

motherfucking
website
dot com



02

Building a webpage





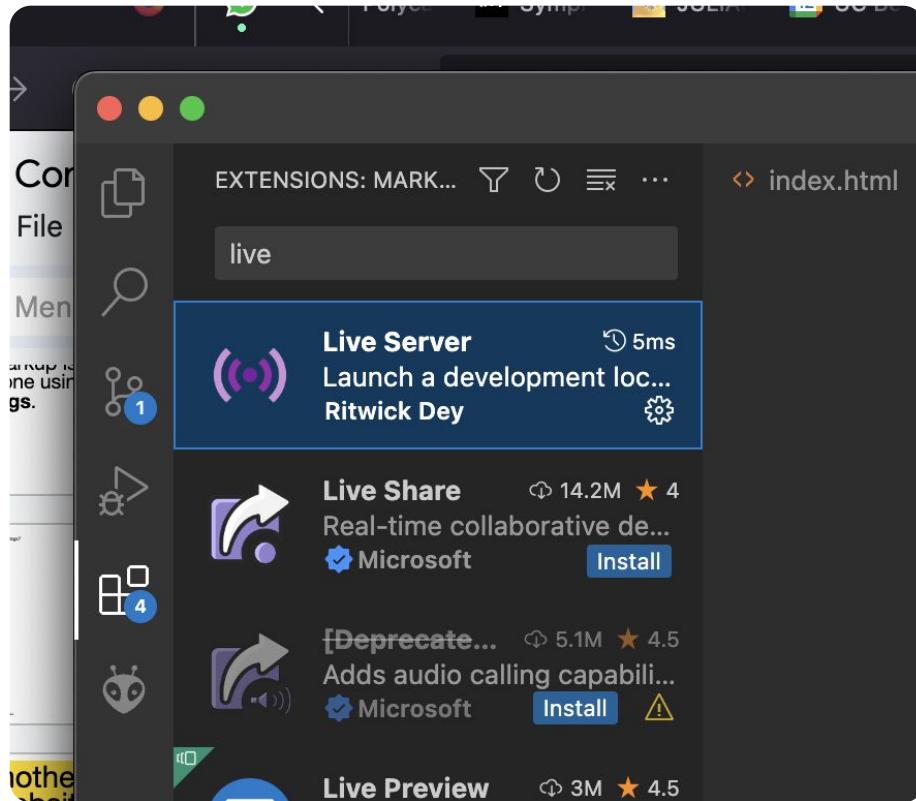
Windows

[https://code.visualstudio.com/docs/?
dv=win64user](https://code.visualstudio.com/docs/?dv=win64user)



MacOS

[https://code.visualstudio.com/docs/?
dv=osx](https://code.visualstudio.com/docs/?dv=osx)



On the left hand toolbar, click
Extensions, and search “live server”

The screenshot shows the details page for the "Live Server" extension in the Visual Studio Code Marketplace. The extension is version v5.7.9, developed by Ritwick Dey, with 40,023,067 installs and a 5-star rating. The description reads "Launch a development local Server with".

Key elements on the page include:

- A large purple speaker icon with concentric circles.
- Buttons for "Disable" and "Uninstall".
- A message stating "This extension is enabled globally."
- Navigation tabs: DETAILS, FEATURE CONTRIBUTIONS, CHANGELOG, and RUNTIME ST.
- A note at the bottom: "[Wanna try LIVE SERVER++ (BETA) ? It'll enable live changes with

Install the Live Server extension by
clicking the Install button

Live code demo

Please follow along!



03

Cascading Style Sheets



What is a stylesheet?

A **stylesheet** is a **sheet** (document) which contains **styles** (how things look).



What is a stylesheet?

A **stylesheet**
is a **sheet**
(document)
which
contains
styles (how
things look).

```
/* styles that affect everything on the page can go in 'html' */
html {
    font-family: 'Inter', 'Noto Sans HK', sans-serif;
    background-color: var(--bg-color);
    color: var(--fg-color);
}

/* another pseudo-selector, for the box drawn when the user selects text */
::selection {
    background: var(--fg-color);
    color: var(--bg-color);
}

a {
    text-decoration: none;
    color: var(--link-color);
}

a:hover {
    text-decoration: underline;
}

main {
    width: 768px;
    /* the two value shorthand for the margin property accepts the "auto" keyword
     * in this case, the second value is the horizontal margins and auto splits
     * the available space equally between left and right, centering our element
     */
    margin: 0 auto;
    padding: 72px 0;
}
```

better
motherfucking
website
dot com



04

Styling that webpage



In Praise of Chairs



Live code demo

Please follow along!



05 Using the Inspector



All websites
are made of
HTML & CSS,
which are
essentially
instructions.

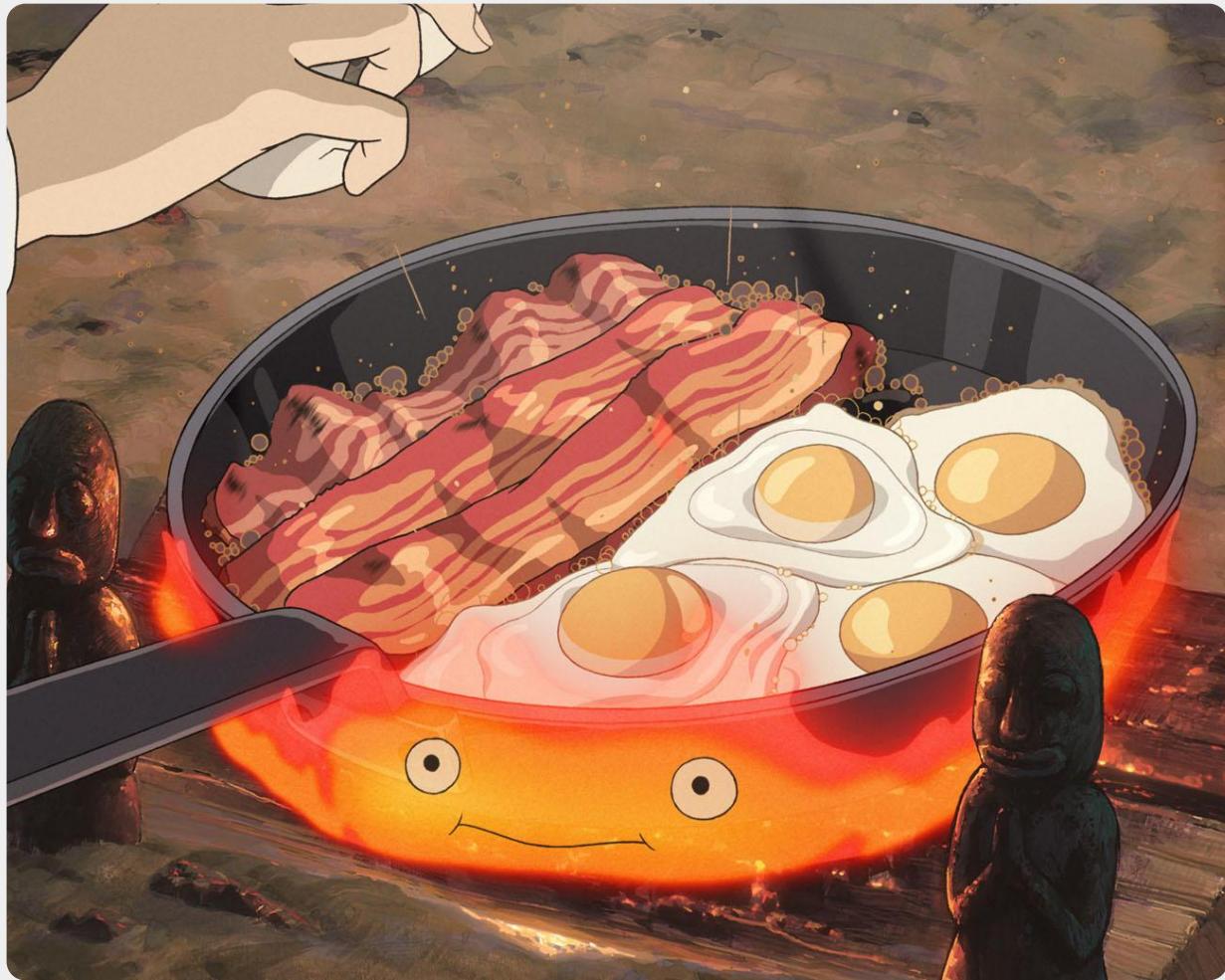


Because of
this, your
browser must
have a copy of
all the code to
recreate a site.



Live code demo

Please follow along!



06

What's *next*?



Javascript

Is

The
Web's

Programming Language

Symphony III Acid

Max Cooper

[Play](#)[Selfie](#)[NET](#)[About](#)

Find Inspiration

Websites are literally all around us, and it takes so many different disciplines to create a good website—UX design, product design, service design, software engineering, interaction design, coding—that just using the web and thinking critically about key concepts like aesthetics, usability, and functionality will generate an endless fountain of inspiration.

The screenshot shows the homepage of HTTPster. At the top is a large, stylized 'httpster' logo. Below it is a main heading: 'Web design inspiration from all over the world'. Underneath this heading are two buttons: 'About' and '✉ Get the newsletter'. Below the heading are several thumbnail images of websites, including one for 'Ossa Wines Tasmania' featuring a mountain graphic and another for 'Vivien' featuring a person's face.

HTTPster
<https://httpster.net/>

The screenshot shows the homepage of AWWWARDS. It features a large, high-contrast graphic of a bicycle wheel in the foreground. Above the wheel is a large, bold, sans-serif font with the letters 'TE OF'. Below the wheel is a dark rectangular area with the text '2023 – Polymer Workshop – Site of'. At the bottom of the page is a navigation bar with the word 'HOME' repeated twice.

AWWWARDS
<https://www.awwwards.com/>

The screenshot shows the homepage of Trend List. At the top is a header with the text 'Trend List' and a subtext 'Documenting visual trends in graphic design since 2011.' Below the header is a title '12031 Images: Page 1/121' with navigation arrows for 'Previous' and 'Next'. The main content area is a grid of small images representing various design projects, including a blue abstract pattern, a colorful geometric collage, a pixelated landscape, a modern building, a red book cover, a magazine spread, a smartphone interface, a stack of sticky notes, a path through trees, a blue folder, and a person holding a book.

Trend List
<https://trendlist.org/>



<https://github.com/XRRCA/CreativeCoding>



Unless source otherwise noted, images are from Pexels and used under CC license.

Slides template adapted from
[SPACE10 Resources](#).

For more, visit [the Creative Coding Github repo](#).