RESPONSIVE DESIGN

Poggie 03.18.2024

// TODO

Hathon prizes

Intro to Responsive Design

DevTools && Responsive Tools

Responsive by default

Exercises

HACKATHON PRIZES.







A screenshot of your final product, Your team name, Your vision, The inspiration,

In the google doc, please add:

and who will benefit from the solution

RESPONSIVE DESIGN.

Have you ever been on a website that sucks to use?

When you were trying to access my notes on mobile in the first weeks of the class, was it annoying to use?

design. So what is responsive web design?

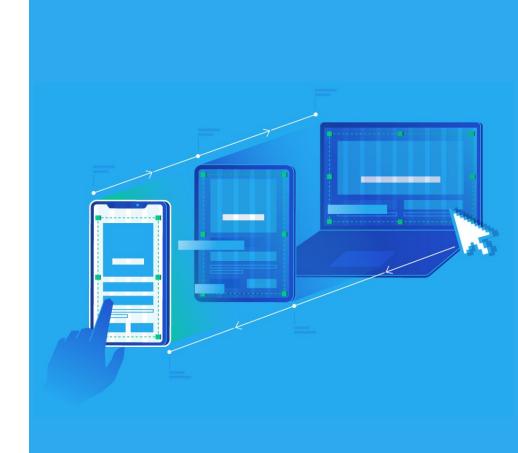
Any creative trade requires both

technique (HTML, CSS) as well as

What is it?

We are using HTML and CSS to achieve an ambitious goal: we want not just make any web page, but web pages that **render well on all screen sizes and resolutions** while retaining usability and function.

That is, responsive web design is the set of best practices used to create universally usable web pages.



[to make them accessible to all users, regardless of device]."
- Uncle Ben, Spider-Man (2002), with minor adaptions.

"With great power [to create websites], comes great responsibility

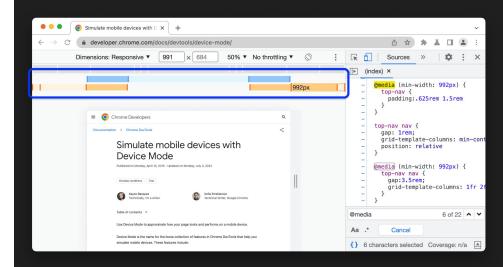
DEVTOOLS.

Responsive mode.

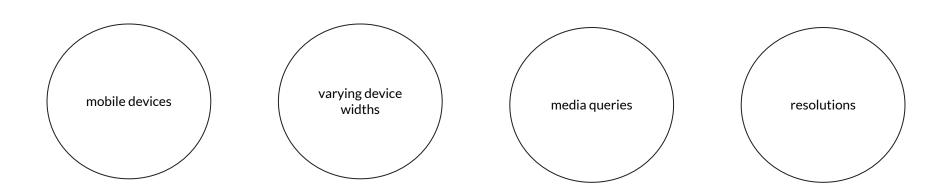
Getting good at any approach to HTML/CSS requires being able to debug our code and measure our success in achieving a design.

Like in previous topics we have learned, modern internet browsers come with a suite of very useful tools for debugging and measuring.

For responsive design, most browsers have a responsive design mode tool as well:^)



What can you simulate in DevTools?



Demo.

MINI QUIZ.

In DevTools, can you capture what the user sees when they try to take a screenshot of our website?

In DevTools, can you see what a screen rotation does to our website?

In DevTools, can we simulate a Desktop device that is also a touch screen?

Sometimes when we try to access

pages on a website and the WIFI sucks,

can we simulate that on Chrome?

South Korea, can we see what this will look like on our website? Can we do that in DevTools?

What happens if we are located in

EXERCISE 1.



Commands and shortcuts

Run commands in the Command Menu

Disable JavaScript

Keyboard shortcuts

Simulate mobile devices with Device Mode

Find text across all loaded resources with Search

Elements panel

Overview

▶ DOM

· CSS

Console

Overview

Log messages

Run JavaScript

Home > Docs > DevTools > More panels



Simulate mobile devices with device mode



Kayce Basques



Sofia Emelianova

0







On this page

Limitations

Simulate a mobile viewport

Responsive Viewport Mode

Show media queries

Set device pixel ratio

Set the device type

Device-specific mode

Rotate the viewport to landscape orientation

Toggle dual-screen mode

Set device posture

Show device frame

Add a custom mobile device

Show rulers

Zoom the viewport

Capture a screenshot

Throttle the network and CPU

Throttle the CPU only

Throttle the network only

<

DevTools Tips

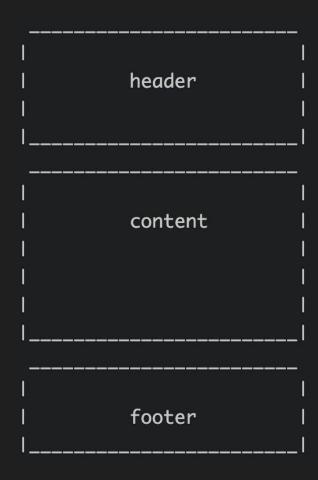
RESPONSIVE BY DEFAULT.

Defaults.

Our very first lab was strangely the most responsive of the labs we have made so far. (Despite containing no extra CSS)

HTML is fundamentally responsive, or fluid. If you create a web page containing only HTML, with no CSS, and resize the window, the browse will automatically reflow the text to fit the viewport.

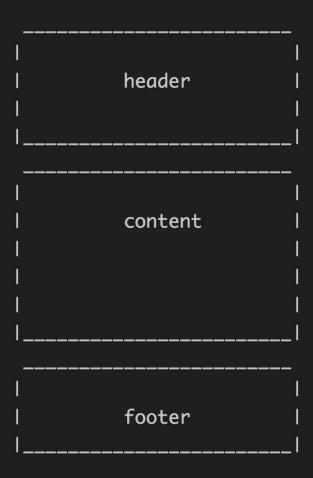
Why?



Defaults cont.

There are two types of HTML element: most are block, and some are inline.

How is the height and width of these elements computed by default?



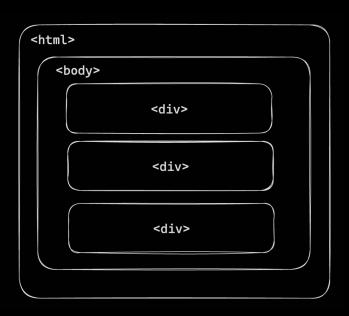
Demo.

How?

Pure HTML automatically resizes its elements in response to the devices and viewports of the user.

HTML uses relative concepts like percentage of parent width to compute width, and the top visible parent (the body element) is by default a block element and its properties are inherited by all child elements.

Document Flow



Some examples...

Hegel's Science of Logic

Appearance

Chapter 3: The Essential Relation

§ 1112

The truth of Appearance is the essential relation, the content of which has immediate self-subsistence; *simply affirmative* immediacy, and *reflected* immediacy or self-identical reflection. At the same time, it is in this self-subsistence a relative content, only and solely as reflection into its other, or as unity of the relation with its other. In this unity the self-subsistent content is a posited, sublated content; but it is just this unity which constitutes its essentiality and self-subsistence; this reflection into other is reflection into itself. The relation has sides because it is reflection into an other; thus it contains within itself its own difference, and the sides are a self-dependent subsistence, since in their mutually indifferent diversity they are disrupted within themselves, so that the subsistence of either side equally has its meaning only in relation to the other or in their negative unity.

§ 1113

The essential relation is therefore not as yet the true third to *essence and Existence*, though it already contains the determinate union of both. Essence is realised in it in such a manner that it has for its subsistence self-subsistent existents; and these have withdrawn from their indifference into their essential unity, so that they have this alone for their subsistence. The reflective determinations of positive and negative are likewise reflected into themselves only as reflected into their opposites; but they have no other determination but this their negative unity. The sides of the essential relation, on the other hand, are posited as self-subsistent totalities. It is the same opposition as that of positive and negative, but at the same time as an inverted world. The side of the essential relation is a totality which, however, as essentially an opposite, has a *beyond* of itself; it is only Appearance; its Existence is not its own, but rather that of its other. It is therefore disrupted within itself; but this its sublatedness consists in its being the unity of itself and its other, therefore a whole, and precisely for this reason it has self-subsistent Existence and is essential reflection-into-self.

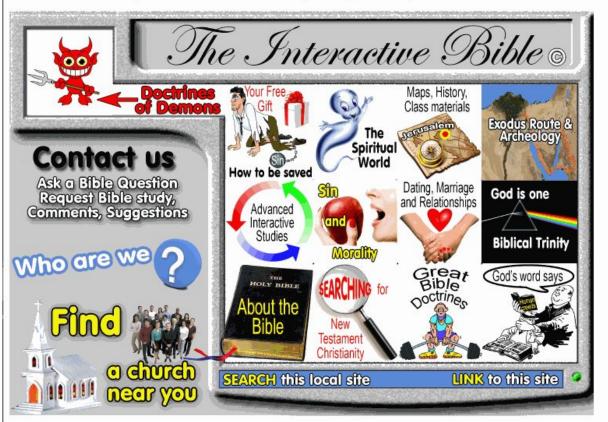
§ 1114

This is the Notion of the relation. But at first the identity it contains is not yet complete: the totality which each

<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"> ▶ <head> @ </head> ▼ <body> Hegel Science of Logic <h1>Appearance</h1> body p html Computed >> Styles :hov .cls + element.style { hegel.css:23 text-indent: 0em: font-family: "Georgia", serif: font-size: 12pt; text-align: left; line-height: 130%; margin-left: 2%; margin-right: 2%; user agent stylesheet display: block; margin-block-start: 1em: margin-block-end: 1em; margin-inline-start: Opx; margin_inline_end: Anv.



Search for this: Submit Advanced

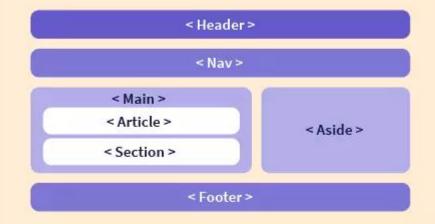


```
© □ | ≫ □ | 🕸 🚼
  ▶ <head> ··· </head>
... ▼<body lang="EN-US" link="
    e" vlink="purple"> == $0
    ▶ <div class="WordSection1
     @</div>
   </body>
  </html>
html
        Computed >>
 Styles
 Filter :hov .cls + 🛱 💽
element.style {
   -webkit-locale: "EN-US":
body user agent stylesheet
   display: block;
  margin: ▶ 8px;
 margin
             8
    border
     padding -
        867×5070.500
```

SEMANTIC HTML RESPONSIVITY.

What is it?

On top of default HTML behavior, there are a few more improvements we can make using semantic HTML element choices.



*** LAYOUT 1 ***		*** LAYOUT 2 ***
l header I	 	 div
l	I	
l l l aside l	1	l l l div l
 main		
i	i	'
 footer 	 	 div

Inclusivity.

Browser reader mode discards elements like <aside>, <header>, <footer> etc. to focus on the <main> and <article> content of a webpage.

Reader mode is not available when semantic markup is not present.



What is one of the main ingredients that leads to a successful website?

Appealing to as many people as possible.

Invisible design.

Our design choices should be invisible. We're not trying to say, "this is for you."

That should inherently resonate.

What we're trying to avoid are scenarios where someone encounters something that communicates, "this is for someone else."

For those that are more curious about this topic, i will add some relevant links to the course notes.

nvisible design

Search Engine optimization.

Search engine optimization is the art of improving the quality and quantity of website traffic by improving its visibility on search engine result pages.

It involves optimizing various aspects of a website or web page to align with the algorithms used by search engines, ultimately aiming to rank higher for relevant search queries.



SUMMARY.

Semantic HTML doesn't just improve the responsivity of your layout, it also also improves the responsivity of individual HTML elements.

```
<!-- clickable, focusable and understood by screen-readers by default --> <button>Click ME</button>
```

<!-- not understood by screen-readers by default -->
<div>Click ME</div>
<!-- ~ restyled/javascripted -->

```
<!-- alt attributes allow non-sighted users to understand your content -->
<img
    src="./cool-cat.jpg"
    alt="I can tell non-sighted people what this cool cat looks like"
/>
```

```
<!-- screenreaders automatically generate Tables of Contents --> <!-- from your heading elements.--> <h1>Wow</h1>
```

<h2>Wow</h2>

<h3>Wow</h3>

There is a large overlap between Responsive Design and Accessibility.

In a lot of ways, Responsive Design can be viewed as a component within the broader realm of accessible web design

WHAT IS CSS EVEN GOOD FOR?

layout?

What if we want to make a complex

Complex Layouts.

We can't make elements stack on each-other, or "flow" horizontally, with just HTML. Rather, it emphasizes the importance of knowing when CSS is truly necessary and understanding its implications on the page design.

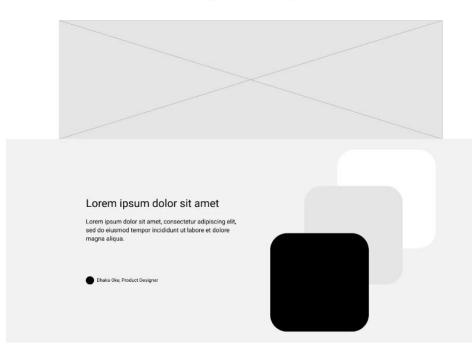
Adding CSS without comprehension may inadvertently detract from the intended design of the page.

Consider CSS a tool in your tool belt, wield it carefully.

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Get started



EXERCISE 2.



C++

C#

BOOTSTRAP

REACT

HTML Tutorial

CSS

JAVASCRIPT

SQL

HTML HOME

HTML

HTML Introduction

HTML Editors

HTML Basic

HTML Elements

HTML Attributes

HTML Headings

HTML Paragraphs

HTML Styles

HTML Formatting

HTML Quotations

HTML Comments

HTML Colors

HTML CSS

HTML Links

HTML Images

HTML Favicon

HTML Page Title

HTML Tables

HTML Lists

HTML Block & Inline

HTML Div

HTML Classes

HTML Id

HTML Iframes

HTML JavaScript

HTML Block and Inline Elements

HOW TO

∢ Previous

PYTHON



EXCEL

XML

Every HTML element has a default display value, depending on what type of element it is.

W3.CSS

The two most common display values are block and inline.

Block-level Elements

AVAL

A block-level element always starts on a new line, and the browsers automatically add some space (a margin) before and after the element.

A block-level element always takes up the full width available (stretches out to the left and right as far as it can).

Two commonly used block elements are: and <div>.

The element defines a paragraph in an HTML document.

The <div> element defines a division or a section in an HTML document.

The element is a block-level element.

The <div> element is a block-level element.

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