



You might not need media queries

How to Use CSS Grid Today

Brenda Storer

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Asbury Agile – October 5, 2018

Me

@brendamarienyc

Software Engineer at Deft

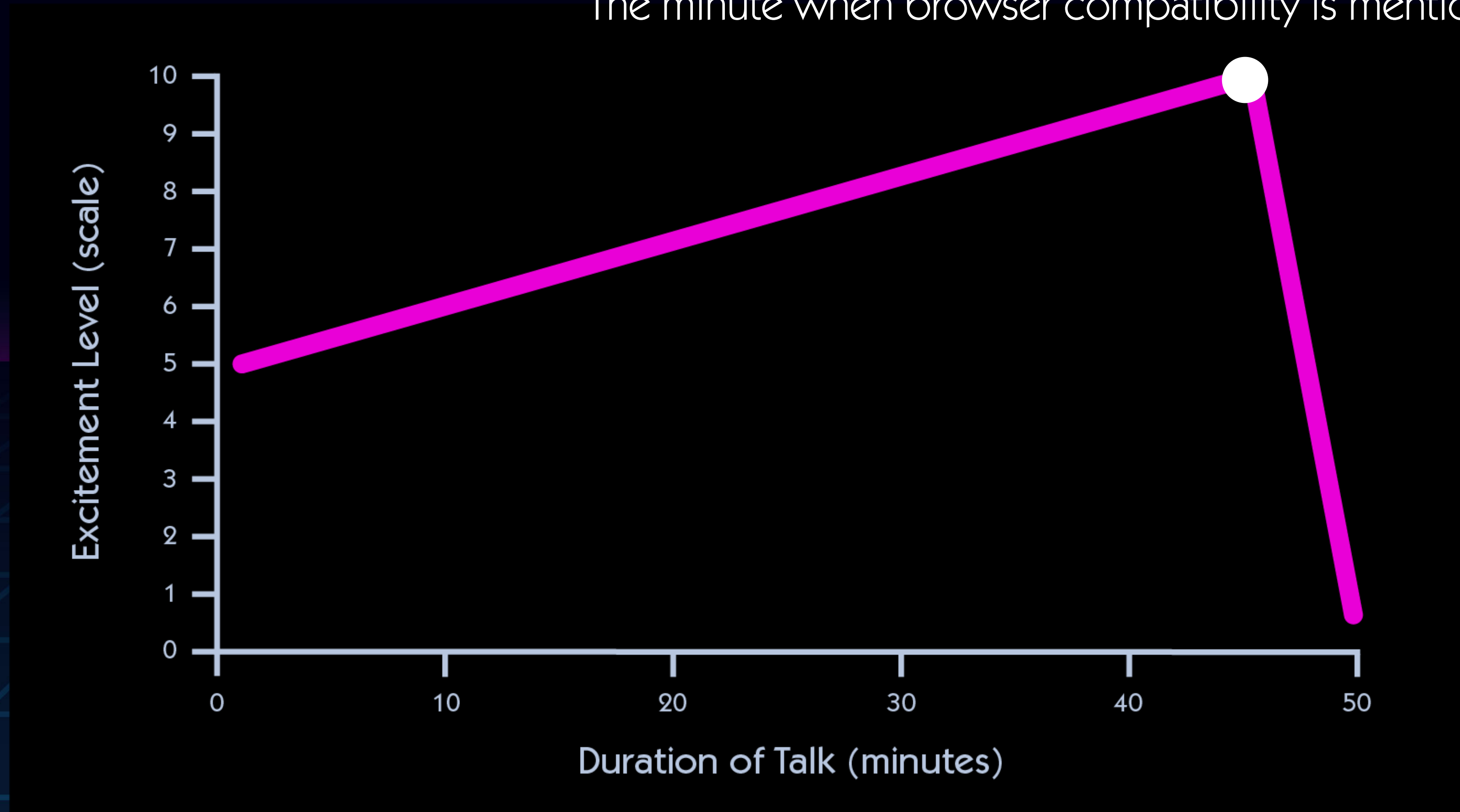
Designer/Front-End Development

(lots of client work!)

You?

Emotional Reaction to new CSS Specs

The minute when browser compatibility is mentioned 🤔😓😡



Why can't we have nice things? 🥹



GRID IS NICE

Why?

Bye Bye Vendor Prefixes 🤖

Hello Feature Flags 🤗

January 27, 2017

#

CSS Grid Layout - CR

Global

0.04% + 5.86% = 5.9%

unprefixed:

0.04%

Method of using a grid concept to lay out content, providing a mechanism for authors to divide available space for lay out into columns and rows using a set of predictable sizing behaviors

Current aligned

Usage relative

Date relative

Show all

IE	Edge *	Firefox	Chrome	Safari	Opera	iOS Safari *	Opera Mini *	Android Browser *	Chrome for Android
			1 49						
			1 51					4.3	
			1 54					4.4	
		3 50	1 55			9.3		4.4.4	
2 11	2 14	3 51	1 56	10	1 42	10.2	all	53	55
	2 15	52	57	10.1	43				
		53	58	TP	44				
		54	59						

October 9, 2017

#

CSS Grid Layout - CR

Method of using a grid concept to lay out content, providing a mechanism for authors to divide available space for layout into columns and rows using a set of predictable sizing behaviors

Global 69.53% + 5.62% = 75.15%
unprefixed: 69.53%
U.S.A. 75.19% + 9.05% = 84.24%
unprefixed: 75.19%

Current aligned Usage relative Date relative Show all

IE	Edge *	Firefox	Chrome	Safari	Opera	iOS Safari *	Opera Mini *	Android Browser *	Chrome for Android
			¹ 49 			10.2			
		55	60	10.1		10.3		4.4	
² 11 	² 15 	56	61	11	47	11	all	56	61
	16	57	62	TP	48				
		58	63		49				
		59	64						

Today

#

CSS Grid Layout - CR

Method of using a grid concept to lay out content, providing a mechanism for authors to divide available space for layout into columns and rows using a set of predictable sizing behaviors. Includes support for all **grid-*** properties and the **fr** unit.

Usage

% of all users 

Global

84.16% + 3.09% = 87.25%

unprefixed:

84.16%

Current aligned

Usage relative

Date relative

Show all

?

IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
			1 49						
			63						
			67		10.3				
		61	68	11.1	11.2				4
2 11	17	62	69	12	11.4	all	69	11.8	7.2
	18	63	70	TP	12				
		64	71						
			72						

0 – 70 in under a month!

Firefox: March 7, 2017

Chrome/Opera: March 14, 2017

Safari: March 27, 2017

Edge: October 17, 2017

...with one exception. IE.

Prefixed version of Grid in IE only `-ms`

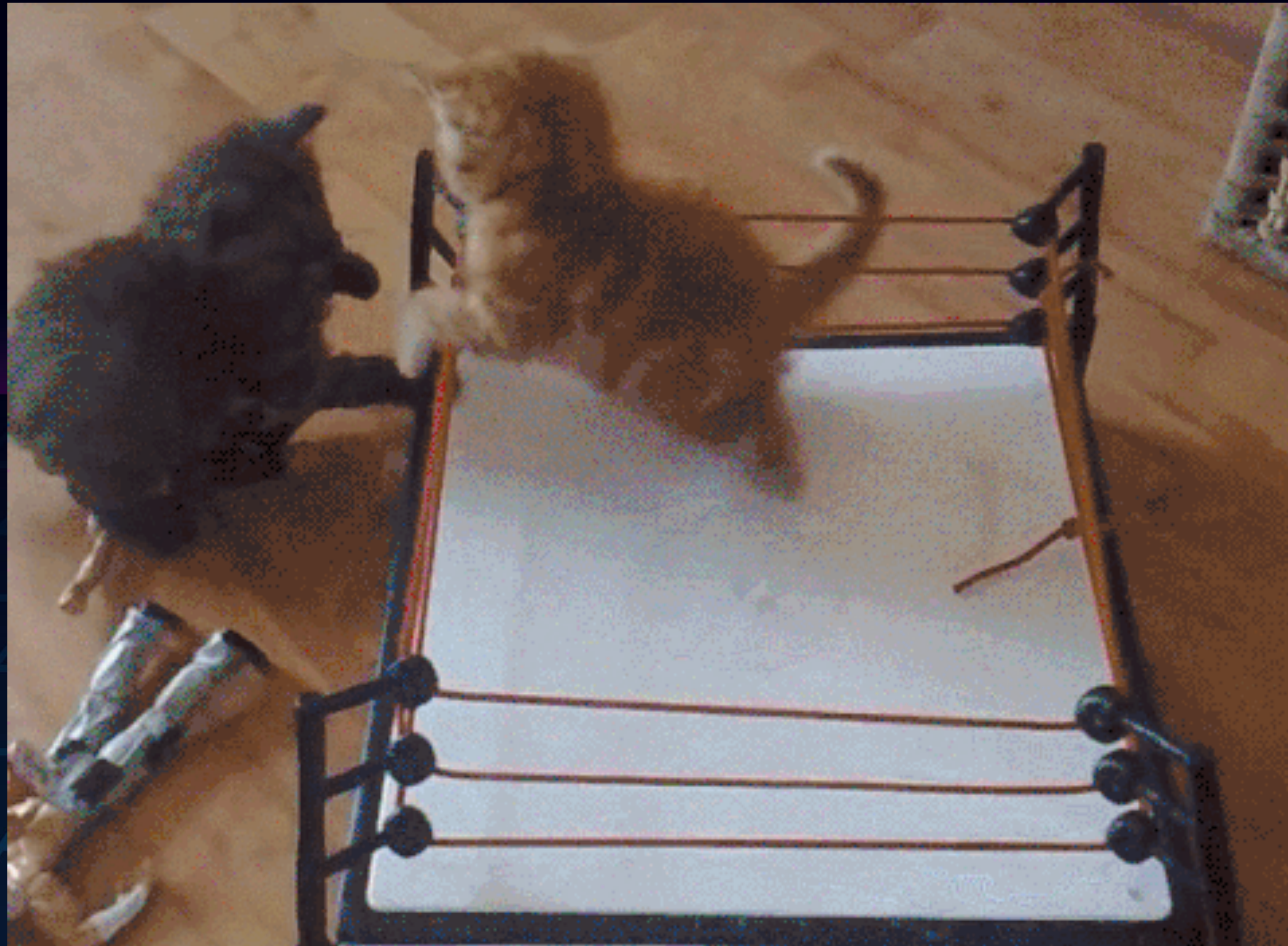
Early, not fully realized version of Grid



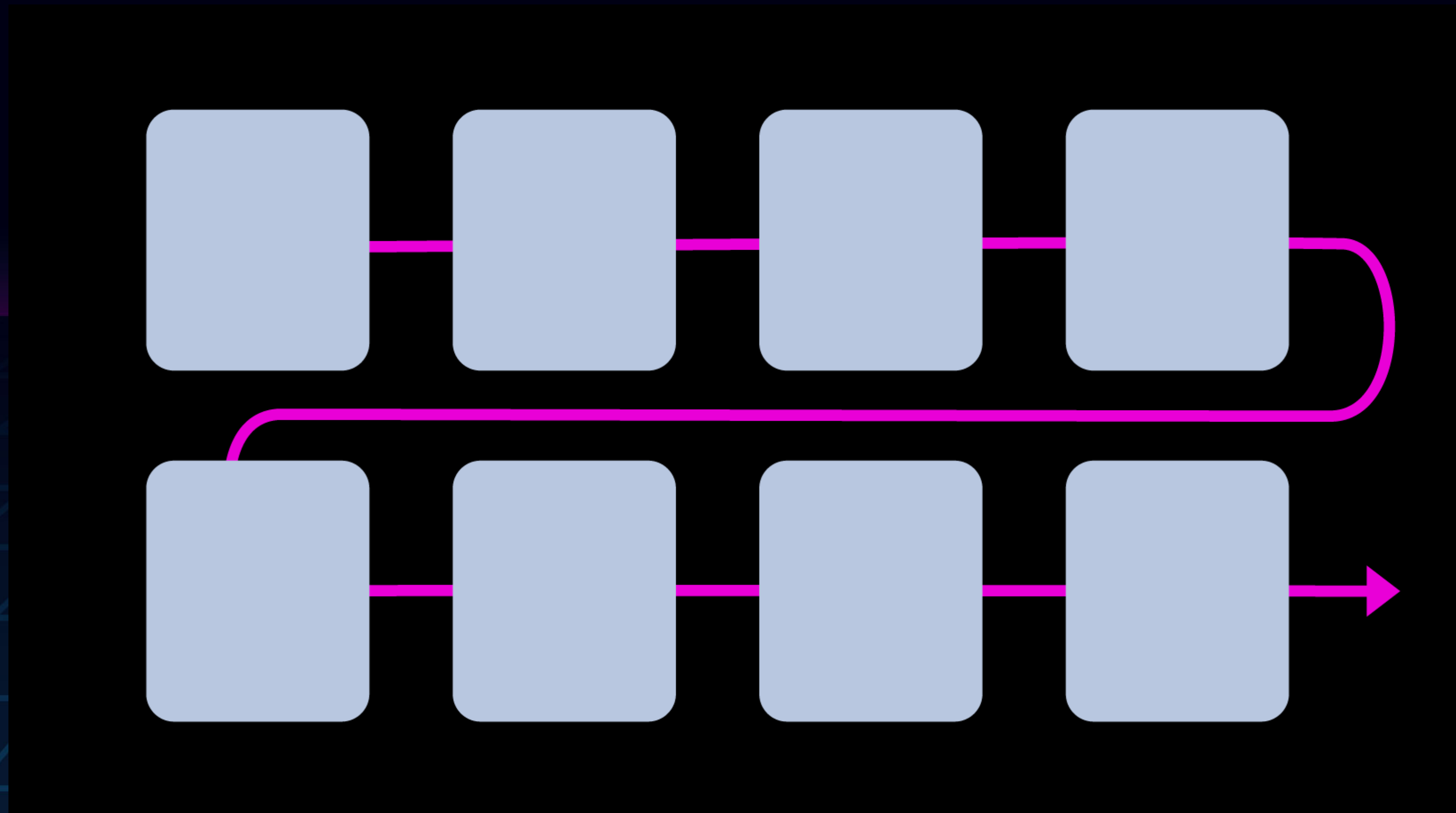
Step by Step Guide to writing CSS Grid

Step 1: Identify a Good Use Case

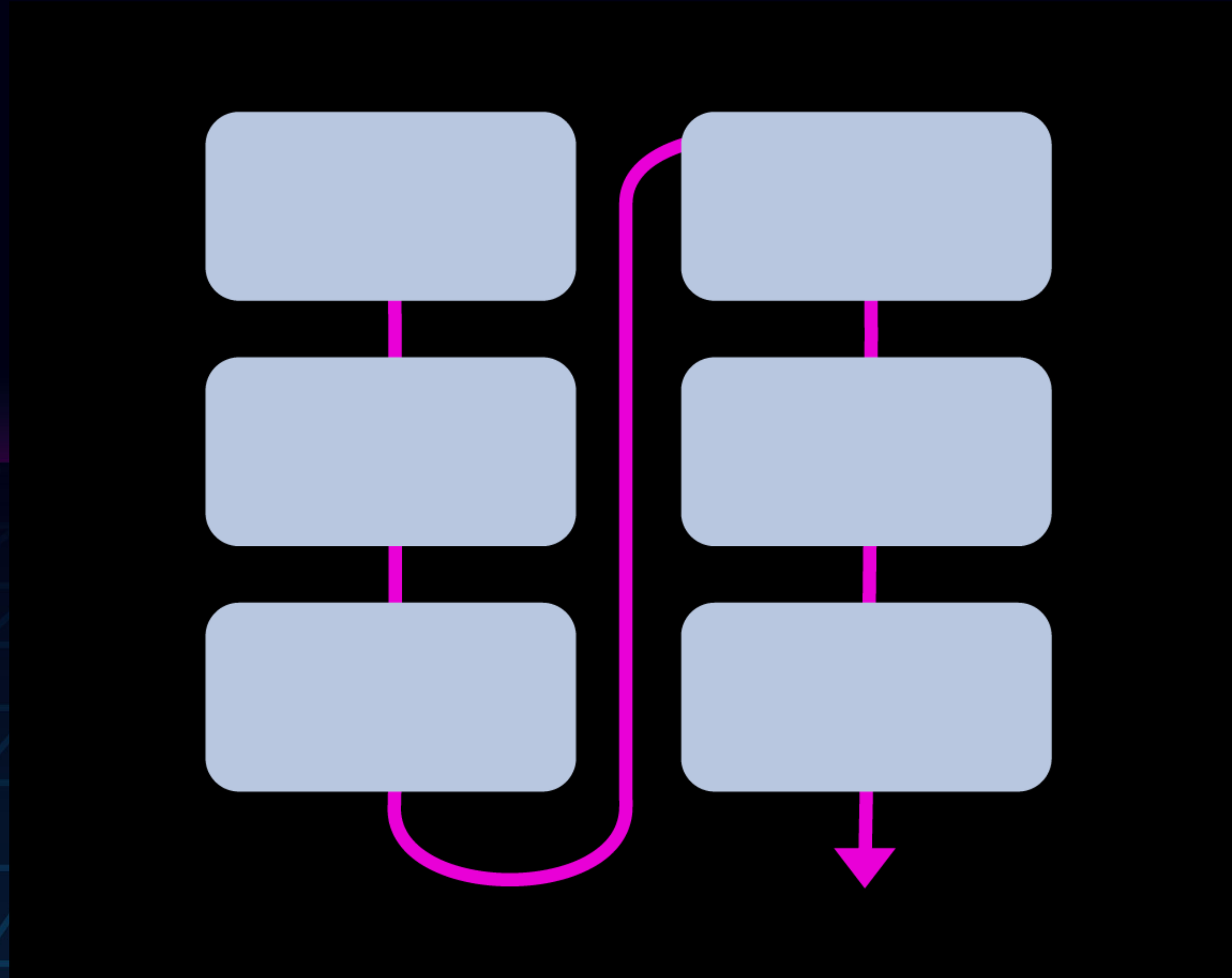
Flexbox vs. Grid



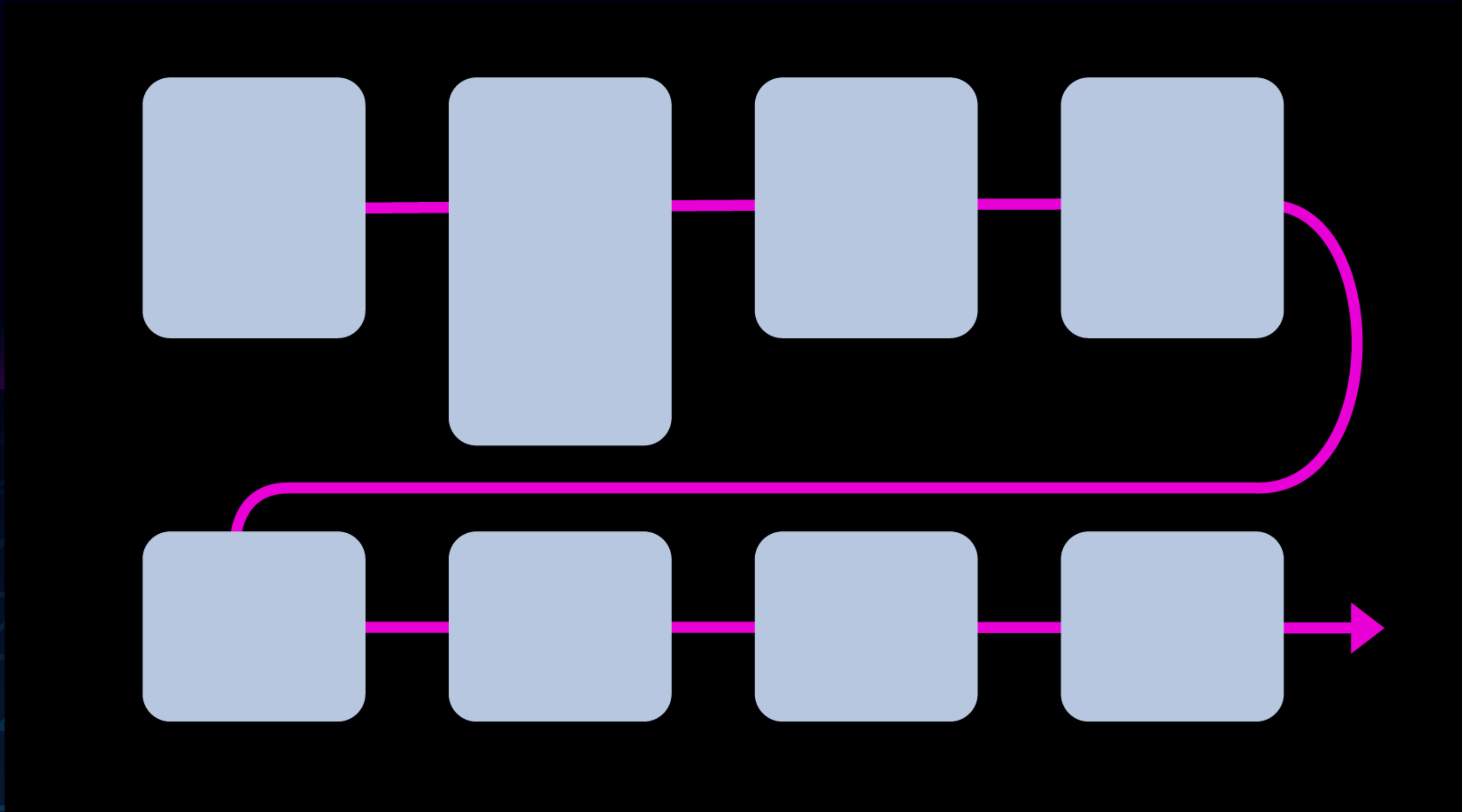
Flexbox is great for laying out items in one direction.
In rows....



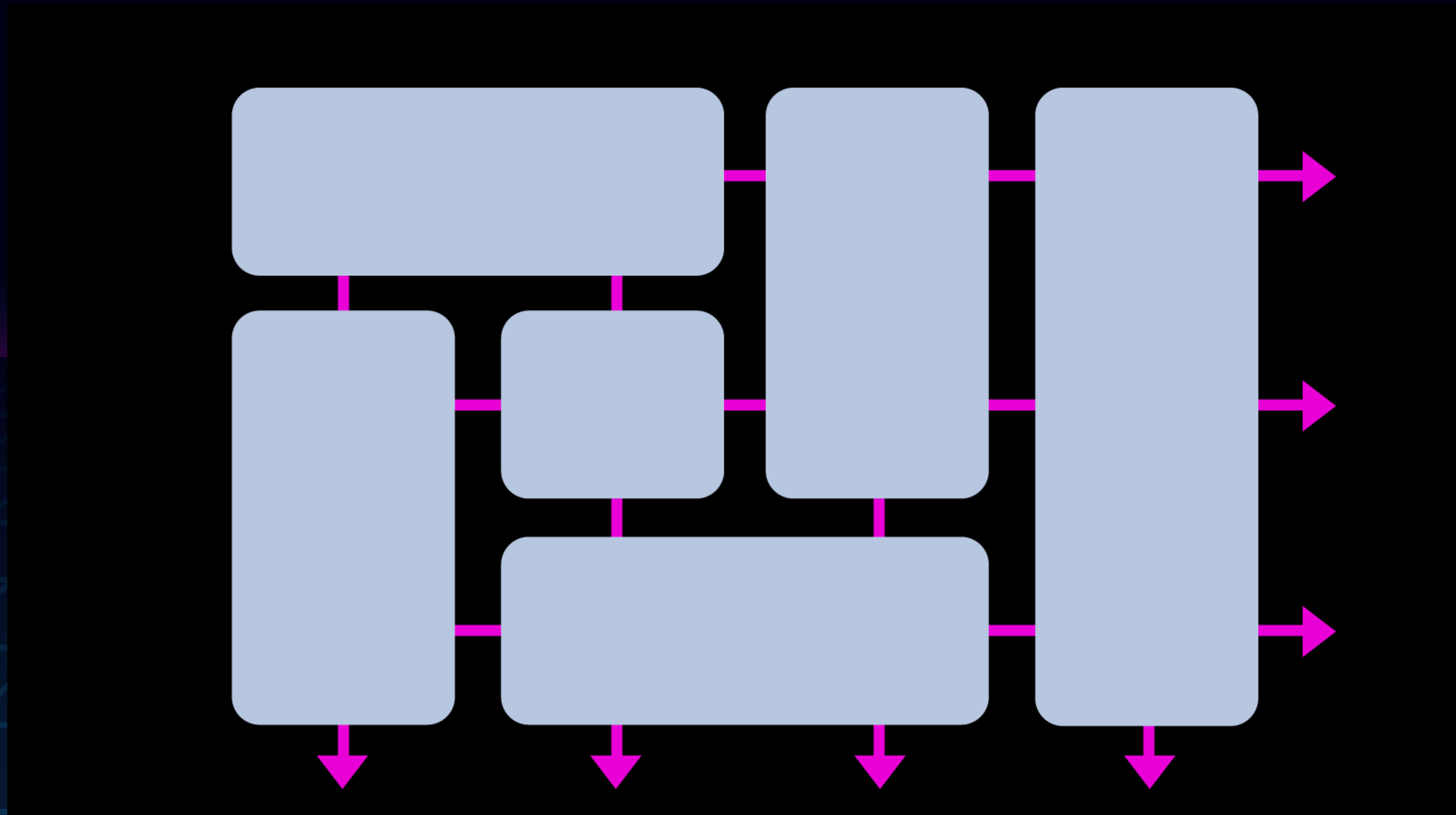
...or columns

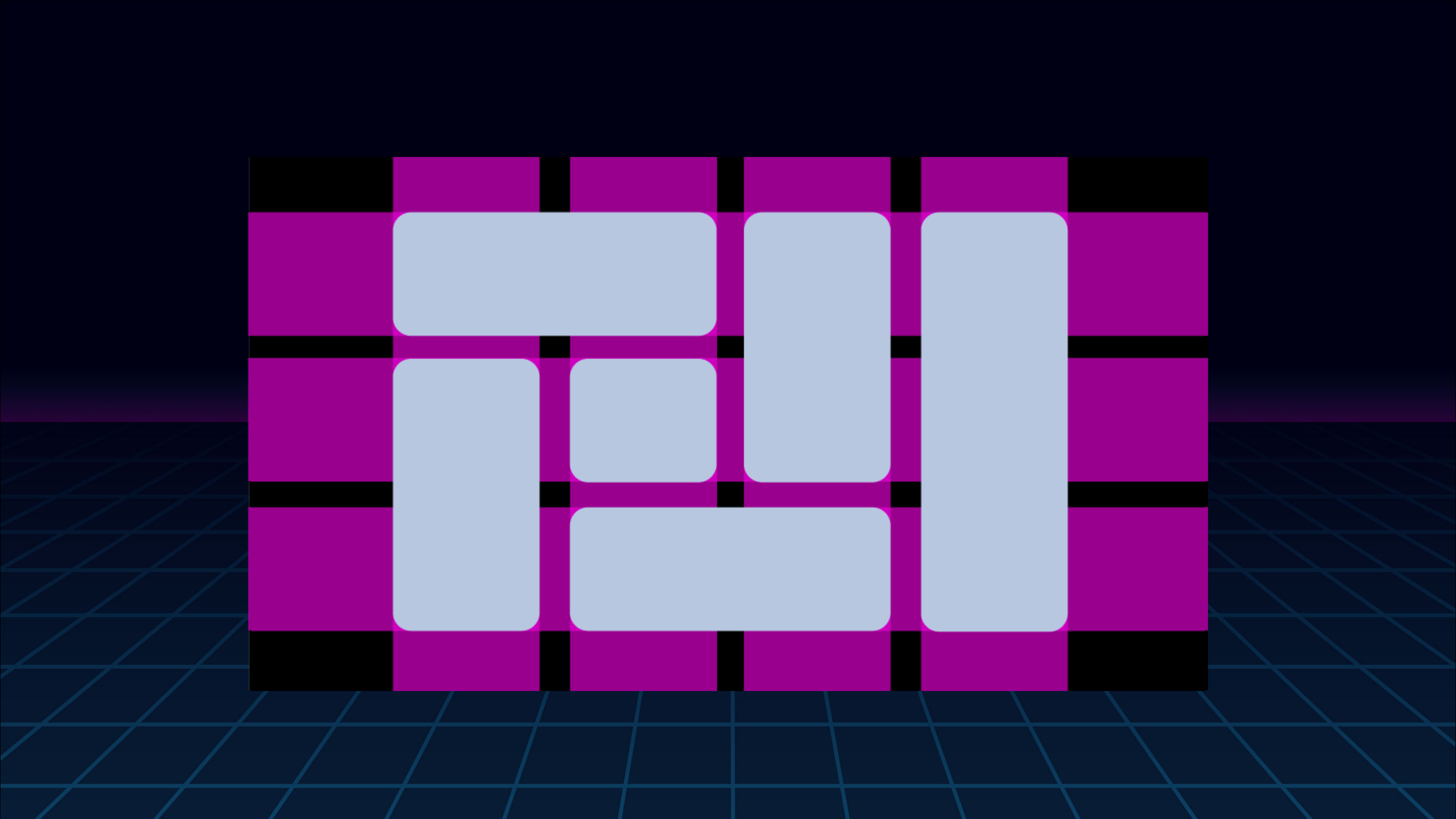


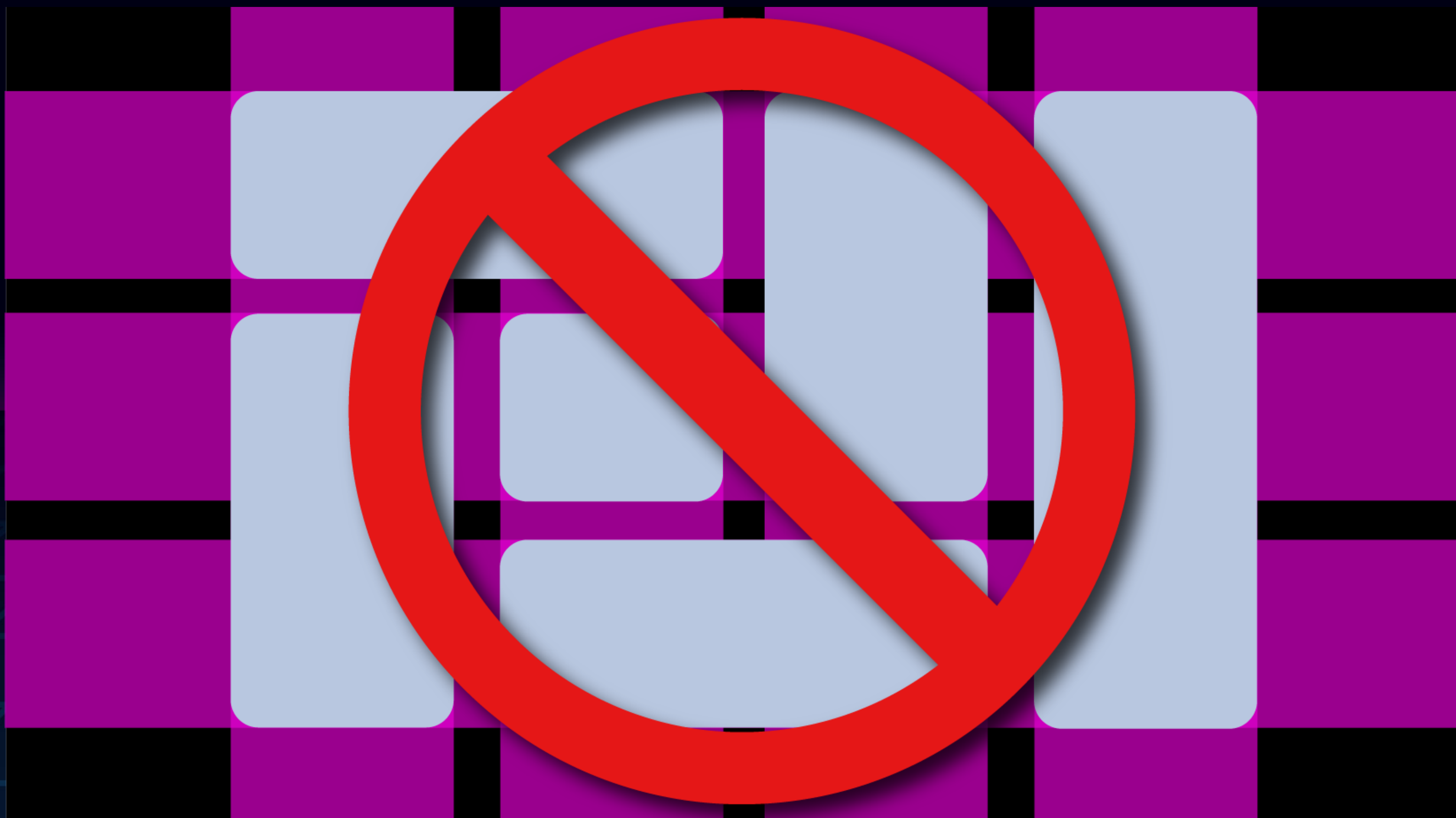
Uh oh.

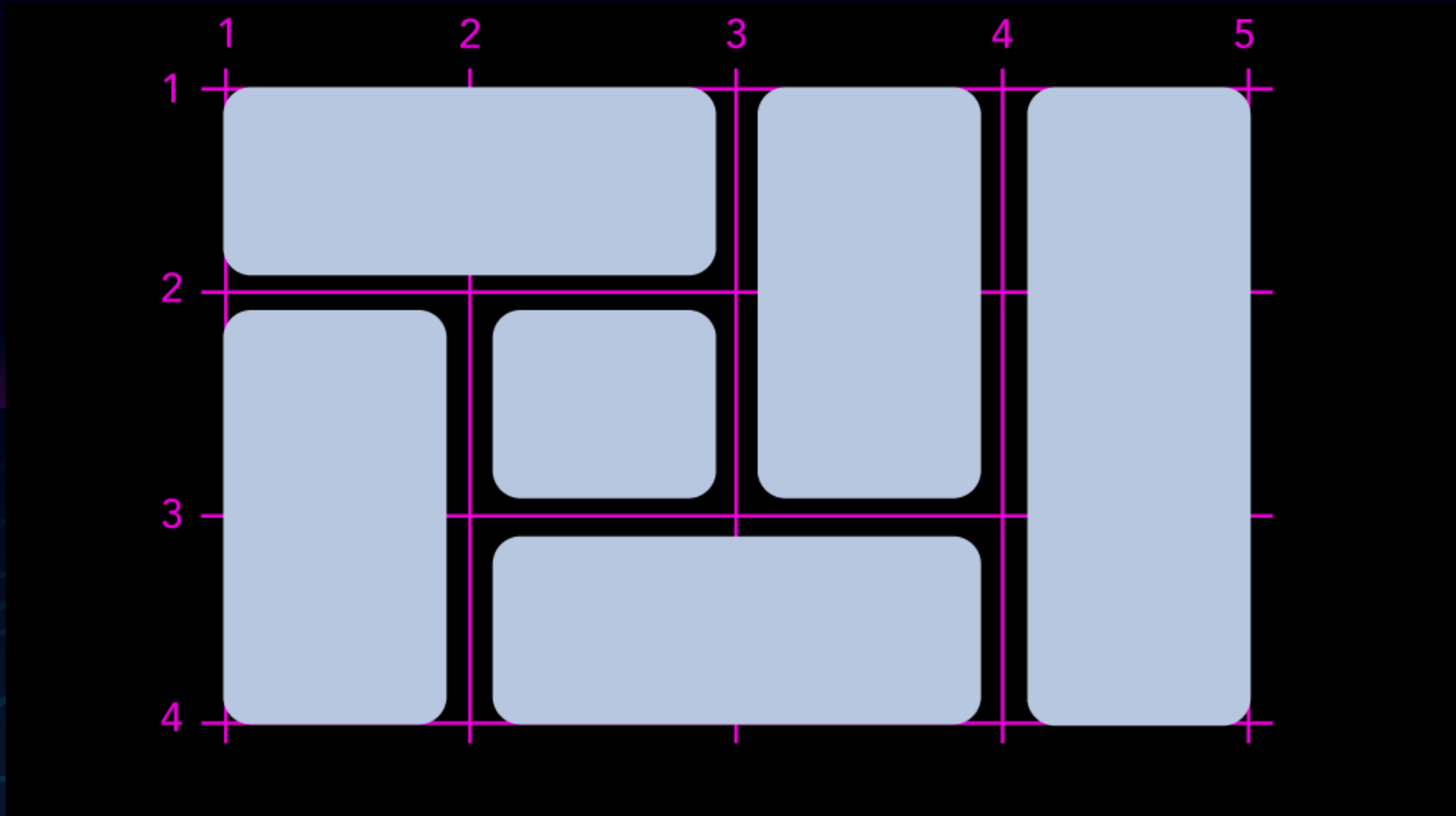


Grid allows you to lay out elements in two directions,
rows & columns





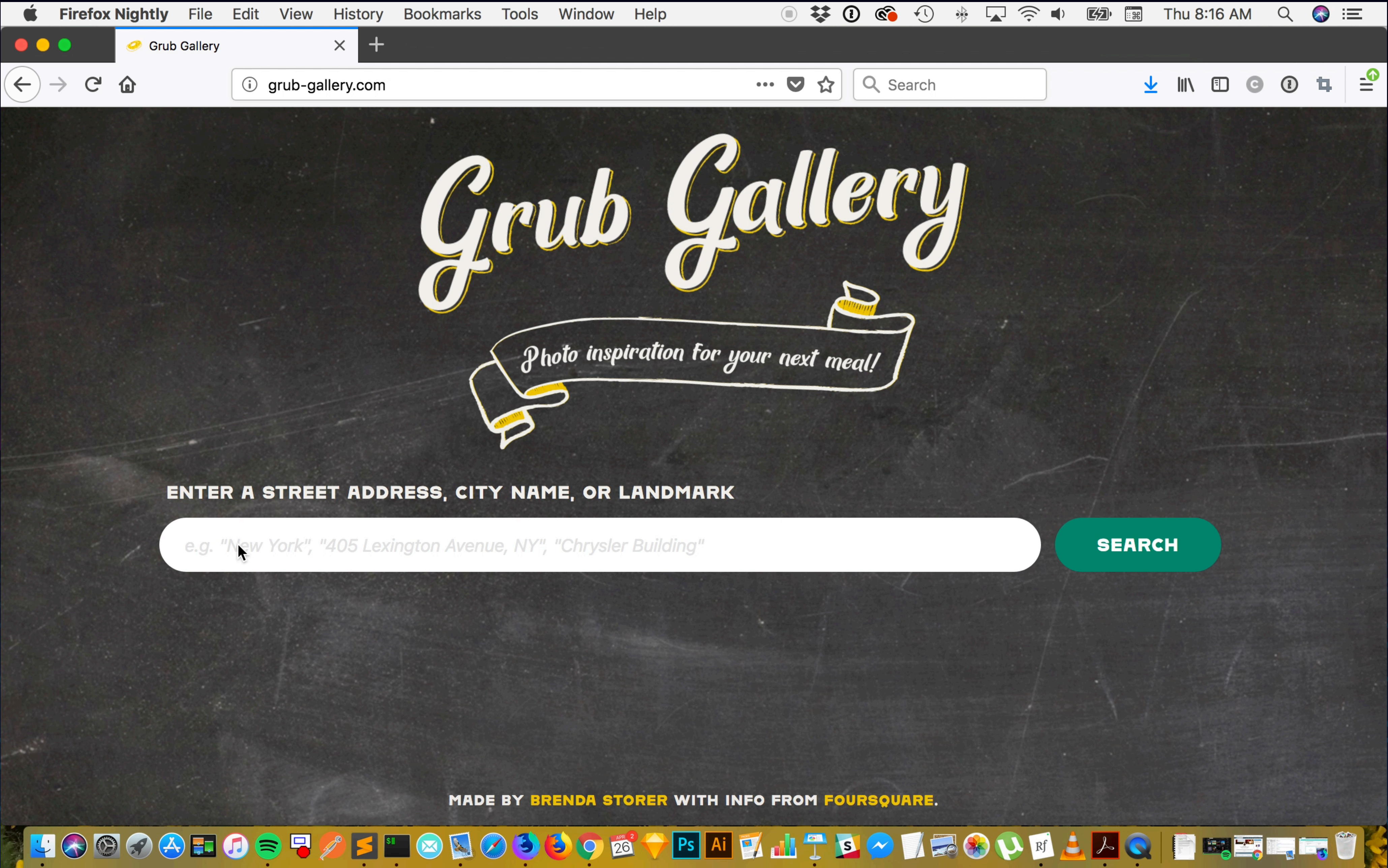




When normally reaching for a layout property like
Flexbox, floats, or positioning,
consider Grid. 🙋

A good use case





Step 2: Write Grid Code

The Markup (simplified)

```
<ul class="search-results">
  <li class="search-results__result">
    
  </li>
  <li class="search-results__result">
    
  </li>
  ... more <li>s
</ul>
```


The CSS 🍾

```
.search-results {  
  display: grid;  
  grid-gap: 10px;  
  grid-template-columns: repeat(auto-fit, minmax(320px, 1fr));  
  padding: 10px;  
}
```

Step 3:
Fallback gracefully with feature queries

@supports

```
@supports (display: grid) {  
  .search-results {  
    display: grid;  
    grid-gap: 10px;  
    grid-template-columns: repeat(auto-fit, minmax(320px, 1fr));  
    padding: 10px;  
  }  
}
```

@supports Support

CSS Feature Queries - CR

CSS Feature Queries allow authors to condition rules based on whether particular property declarations are supported in CSS using the @supports at rule.

Usage	% of all users
Russian Federation	81.32%
Global	93.42%

Current aligned

Usage relative

Date relative

Show all

IE	Edge	Firefox	Chrome	Safari	iOS Safari	Opera Mini	Chrome for Android	UC Browser for Android	Samsung Internet
		52	49		10.3				
	16	59	65		11.2				
11	17	60	66	11.1	11.3	all	66	11.8	6.2
	18	61	67	TP					
		62	68						
			69						

Fallin' back with Flexbox

```
.search-results {  
  display: flex;  
  flex-wrap: wrap;  
  padding: 5px;  
}
```

```
.search-results__result {  
  margin: 5px;  
}
```

```
@media only screen and (min-width: 500px) {  
  .search-results__result {  
    width: calc(50% - 10px);  
  }  
}
```

```
@media only screen and (min-width: 800px) {  
  .search-results__result {  
    width: calc(33.3333% - 10px);  
  }  
}
```

```
@media only screen and (min-width: 1200px) {  
  .search-results__result {  
    width: calc(25% - 10px);  
  }  
}
```

```
.search-results {  
  display: flex;  
  flex-wrap: wrap;  
  padding: 5px;  
}  
  
@supports (display: grid) {  
  .search-results {  
    display: grid;  
    grid-gap: 10px;  
    grid-template-columns: repeat(auto-fit, minmax(320px, 1fr));  
    padding: 10px  
  }  
}
```



```
.search-results__result {  
  margin: 5px;  
}  
  
@media only screen and (min-width: 500px) {  
  .search-results__result {  
    width: calc(50% - 10px);  
  }  
}  
  
@media only screen and (min-width: 800px) {  
  .search-results__result {  
    width: calc(33.3333% - 10px);  
  }  
}  
  
@media only screen and (min-width: 1200px) {  
  .search-results__result {  
    width: calc(25% - 10px);  
  }  
}  
  
@supports (display: grid) {  
  .search-results__result {  
    margin: 0;  
    width: auto;  
  }  
}
```

Grid code with a Flexbox fallback: Ready for production!

```
.search-results {
  display: flex;
  flex-wrap: wrap;
  padding: 5px;
}

@supports (display: grid) {
  .search-results {
    display: grid;
    grid-gap: 10px;
    grid-template-columns: repeat(auto-fit, minmax(320px, 1fr));
    padding: 10px
  }
}

.search-results__result {
  margin: 5px;
}

@media only screen and (min-width: 500px) {
  .search-results__result {
    width: calc(50% - 10px);
  }
}

@media only screen and (min-width: 800px) {
  .search-results__result {
    width: calc(33.3333% - 10px);
  }
}

@media only screen and (min-width: 1200px) {
  .search-results__result {
    width: calc(25% - 10px);
  }
}

@supports (display: grid) {
  .search-results__result {
    margin: 0;
    width: auto;
  }
}
```


Order matters

Fallback first as the default

Grid code last, so it can override the default styles

A few considerations...

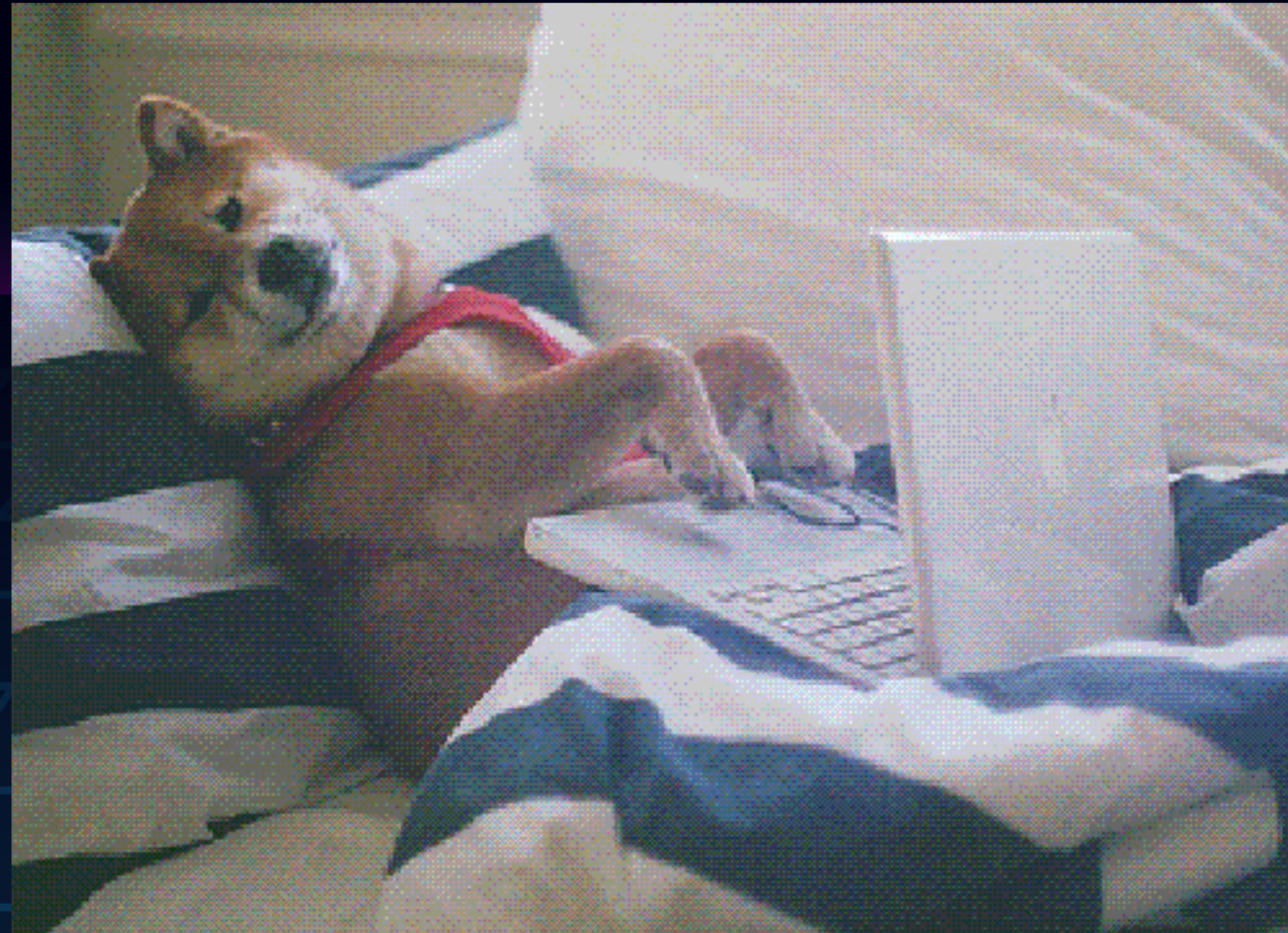
Disable Grid in Autoprefixer

- This is the default for Autoprefixer v7.0 and greater

Some syntax not supported in Sass until v3.5

- Sass-rails only running Sass v3.1

Step 4: Ship it



Everyday examples!*

*disclaimer

“It’s ok that when I look back at my old code
I sometimes say, ‘Whatever was I thinking?!!’
That means I’m still learning & growing.”

– Brenda Storer

What things can CSS Grid do that CSS couldn't do before?

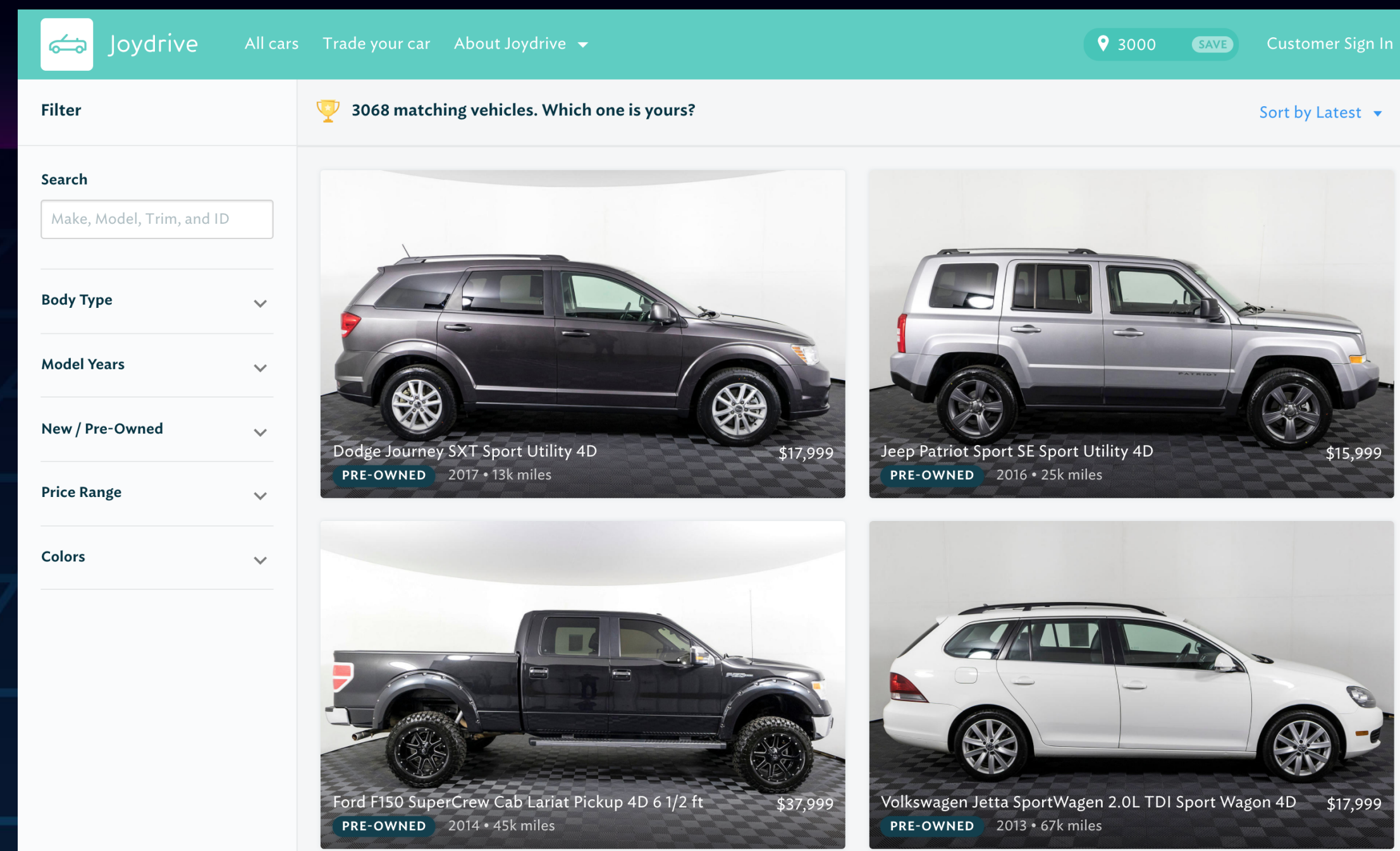
Control placement around unknowns.

Using media queries with grid.

HOTSHOTPD

Beyond media queries

Responsive based on content size
rather than screen size

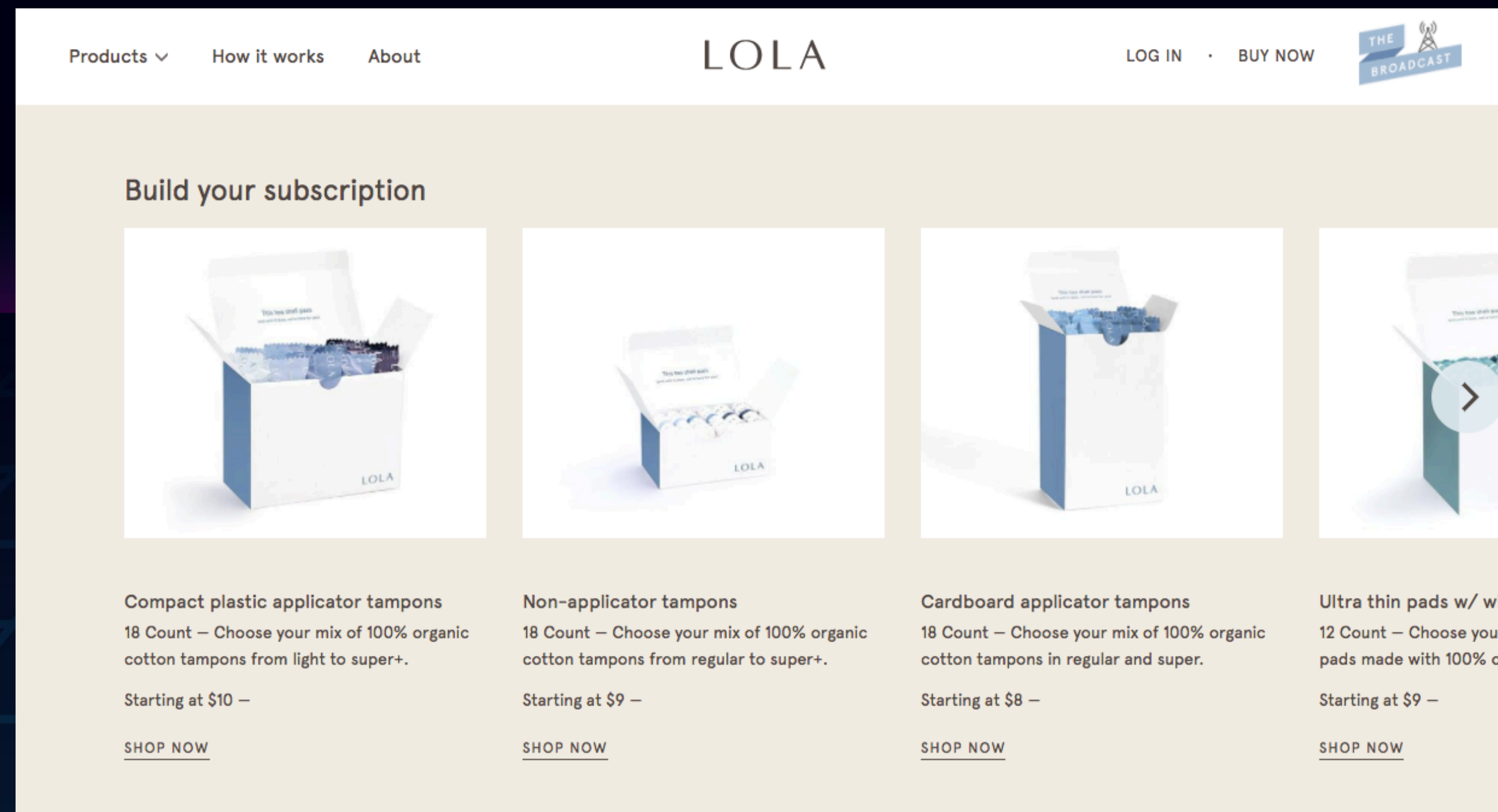


Graceful Degradation

Who made the rules that web pages must look the same in every browser?



Grid + Navigations = ❤️



RESOURCES

Layout Land - Jen Simmons

- Basics of CSS Grid: The Big Picture

Labs - Jen Simmons

Grid By Example - Rachel Andrew

- Get Started Guide
- Flexible Sized Grids with auto-fill and minmax

From Bootstrap to CSS Grid - Natalya Shelburne

- Move Forward without Breaking Anything

Grid + IE

Should I try to use the IE implementation of CSS Grid Layout? — Rachel Andrew

Internet Explorer + CSS Grid???? — Jen Simmons

Supporting CSS Grid in Internet Explorer How to Make CSS Grid Work in IE in 5 Minutes! — Elad Shechter

Resources from Me

[Codepen Collection of CSS Grid Examples](#)

[A Fearless Guide to Using CSS Grid Today](#)

Thank you!

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<http://brendastorer.com>

<http://brendastorer.com/presentations/2018-10-AsburyAgile.pdf>