What’s new in CSS

SydCSS 2022

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Content lead web.dev and developer.chrome.com.

CSS Working Group member.

CSS is amazing right now!

New to the web platform

A series of posts to keep you updated with what's landing in web browsers each month.

New to the web platform in October

New to the web platform in September

New to the web platform in August

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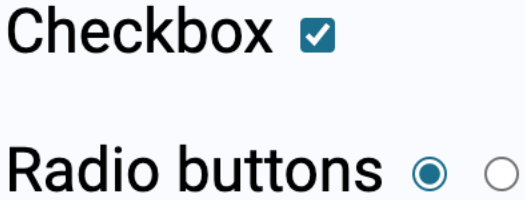
Use your brand color in form inputs.

accent-color




```
input {
  accent-color: var(--blue-sapphire);
}
```

Use accent-color now!

New color functions

color-mix()

```
li {
  background-color: color-mix(in lch, white 10%, darkblue);
}
```

Try out color-mix()

In Safari Technology Preview enable CSS color-mix() in the develop menu

In Firefox, in about:config enable `layout.css.color-mix.enabled`

Solving font layout shifts

size-adjust, ascent-override, descent-override, line-gap-override

```
@font-face {
  font-family: "fallback";
  src: local(Arial);
  size-adjust: 90%;
  ascent-override: 110%;
  descent-override: 110%;
  line-gap-override: 99%;
}

@font-face {
  font-family: "Webfont";
  src: url(/path/to/webfont.woff2) format('woff2');
}

html {
  font-family: "Webfont", "fallback";
}
```

Use size-adjust, ascent-override, descent-override, and line-gap-override now!

Controlling specificity

@layer

```
@layer base special

@layer special {
  .item {
    color: rebeccapurple;
  }
}

@layer base {
  .item {
    color: green;
  }
}
```

Use Cascade Layers now!

Small, large, and dynamic viewport units

Units that account for mobile viewports with and without UI elements.

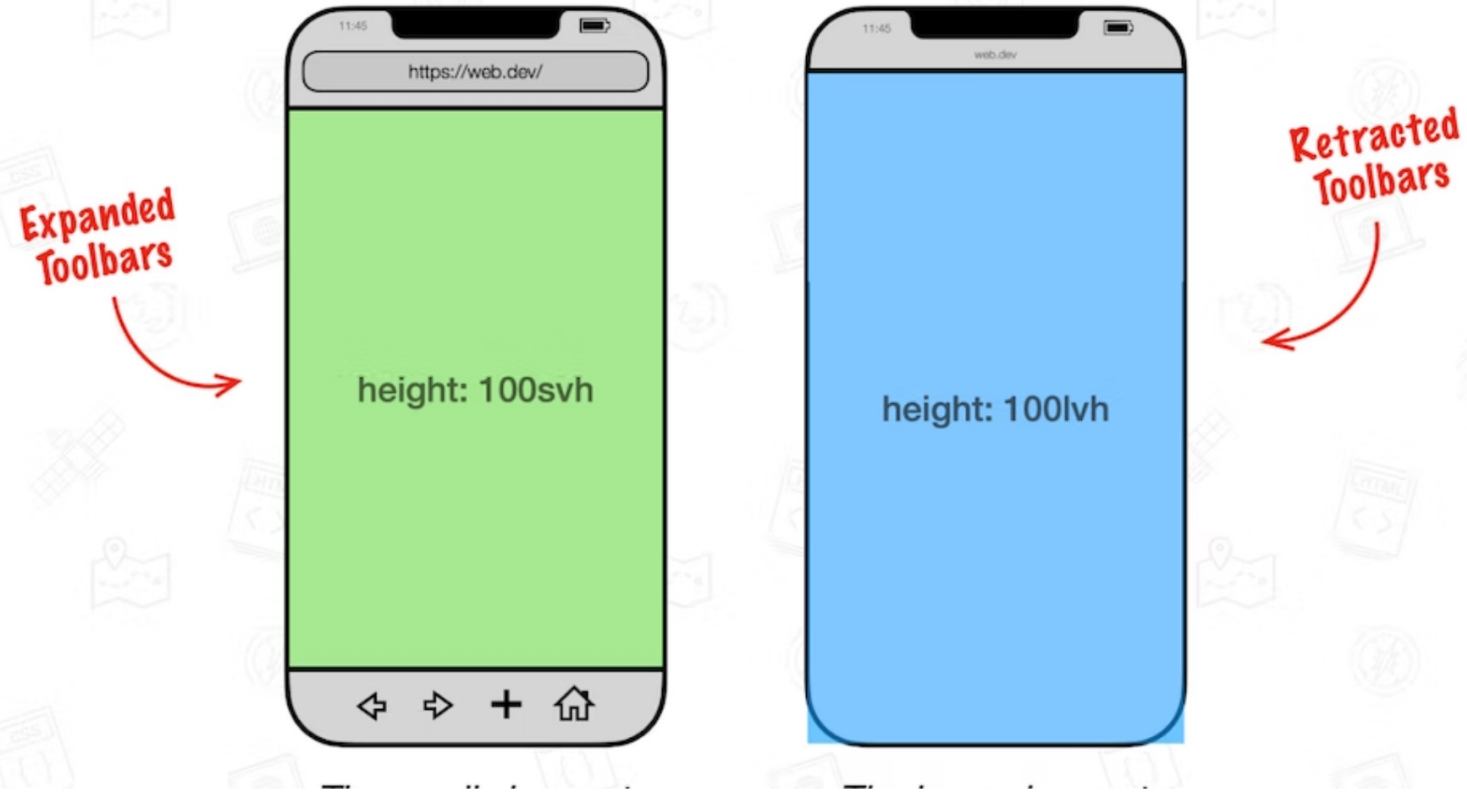
Viewport concepts

- Large viewport: the viewport with no dynamic UI elements visible.
- Small viewport: the viewport with the dynamic UI elements visible.

```
.wrapper {
  block-size: 100lvh; /* large */
}

.wrapper {
  block-size: 100svh; /* small */
}

.wrapper {
  block-size: 100dvh; /* dynamic */
}
```



SHARE

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The large, small, and dynamic

Use the new viewport units now!

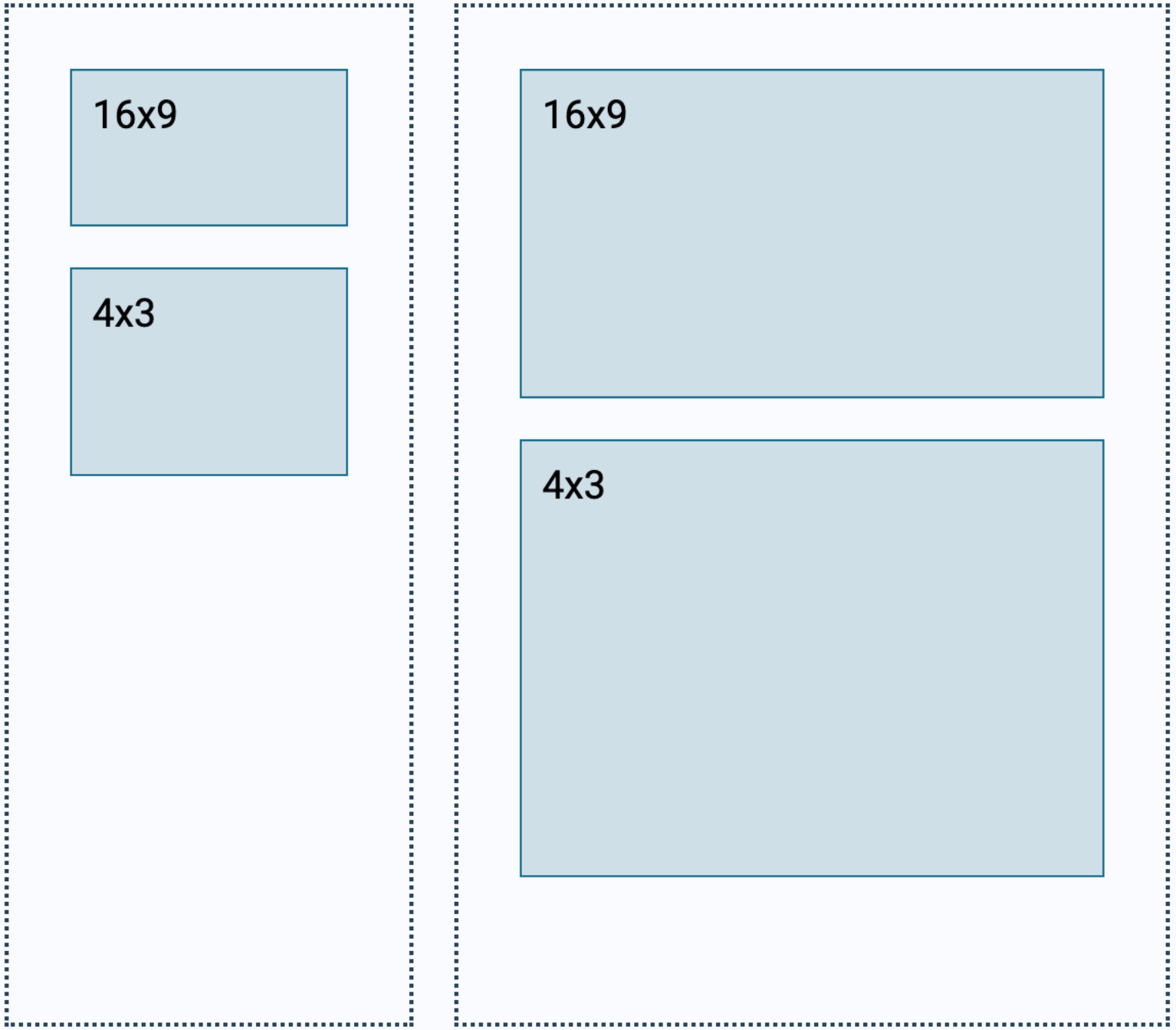
Aspect Ratios

aspect-ratio

The “padding hack”

https://css-tricks.com/aspect-ratio-boxes/

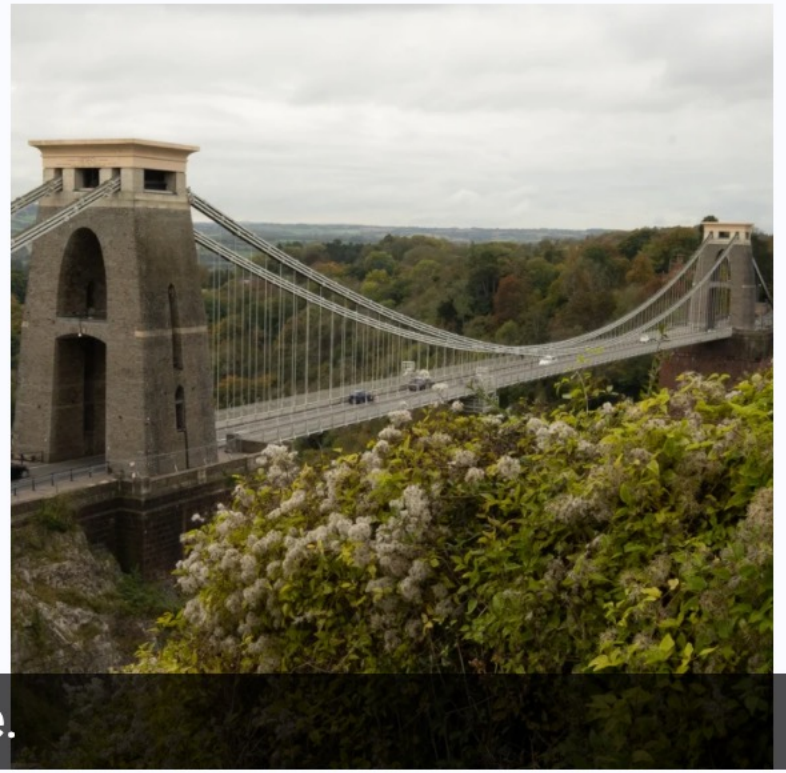
```
aspect-ratio: 16/9;
```


16x9
4x3
16x9
4x3

```
.wrapper {
  display: grid;
  grid-template-columns: 200px 350px;
}

.box16x9 {
  aspect-ratio: 16/9;
}

.box4x3 {
  aspect-ratio: 4/3;
}
```



Bristol is a pretty nice place to live.

1
2
3
4
1
2
3
−3
−2
−1
−4
−3
−2
−1
BRISTOL
BALLOONS
Bristol is a pretty nice place to live.
1fr
1fr
1fr

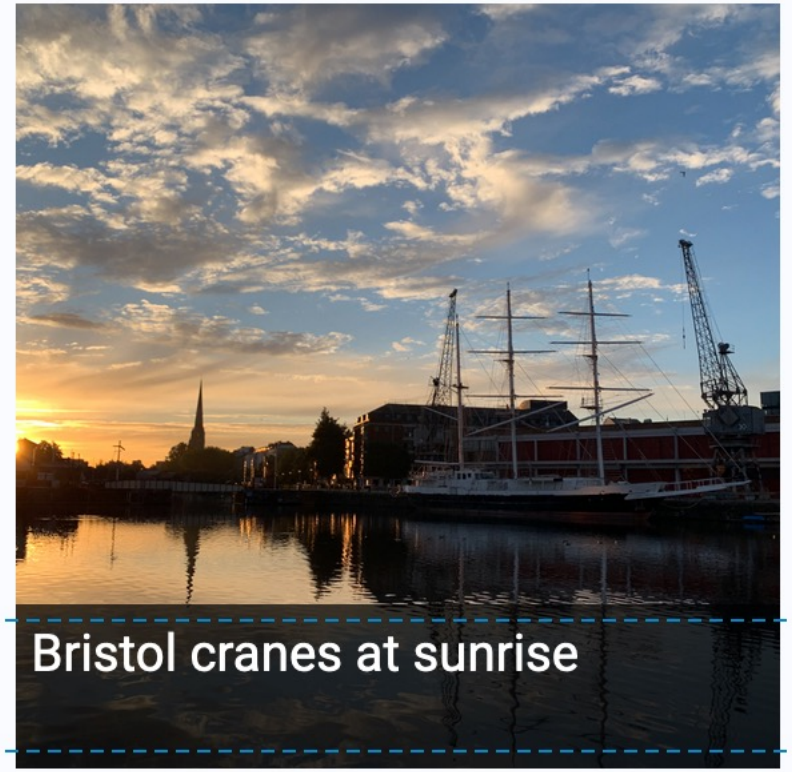
Use aspect-ratio now!

Subgrid

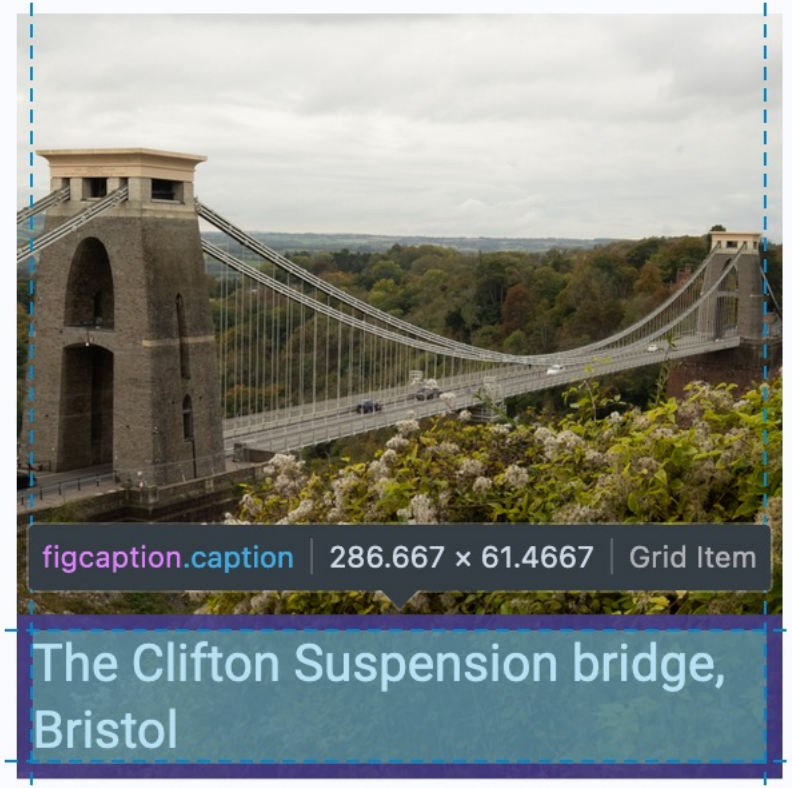
Allow nested grids to inherit the track sizing from the parent.

```
.container {
  display: grid;
  grid-template-columns: 1fr 1fr 1fr;
}

.container .item {
  grid-column: 1 / 3;
  display: grid;
  grid-template-columns: subgrid;
}
```



Bristol cranes at sunrise

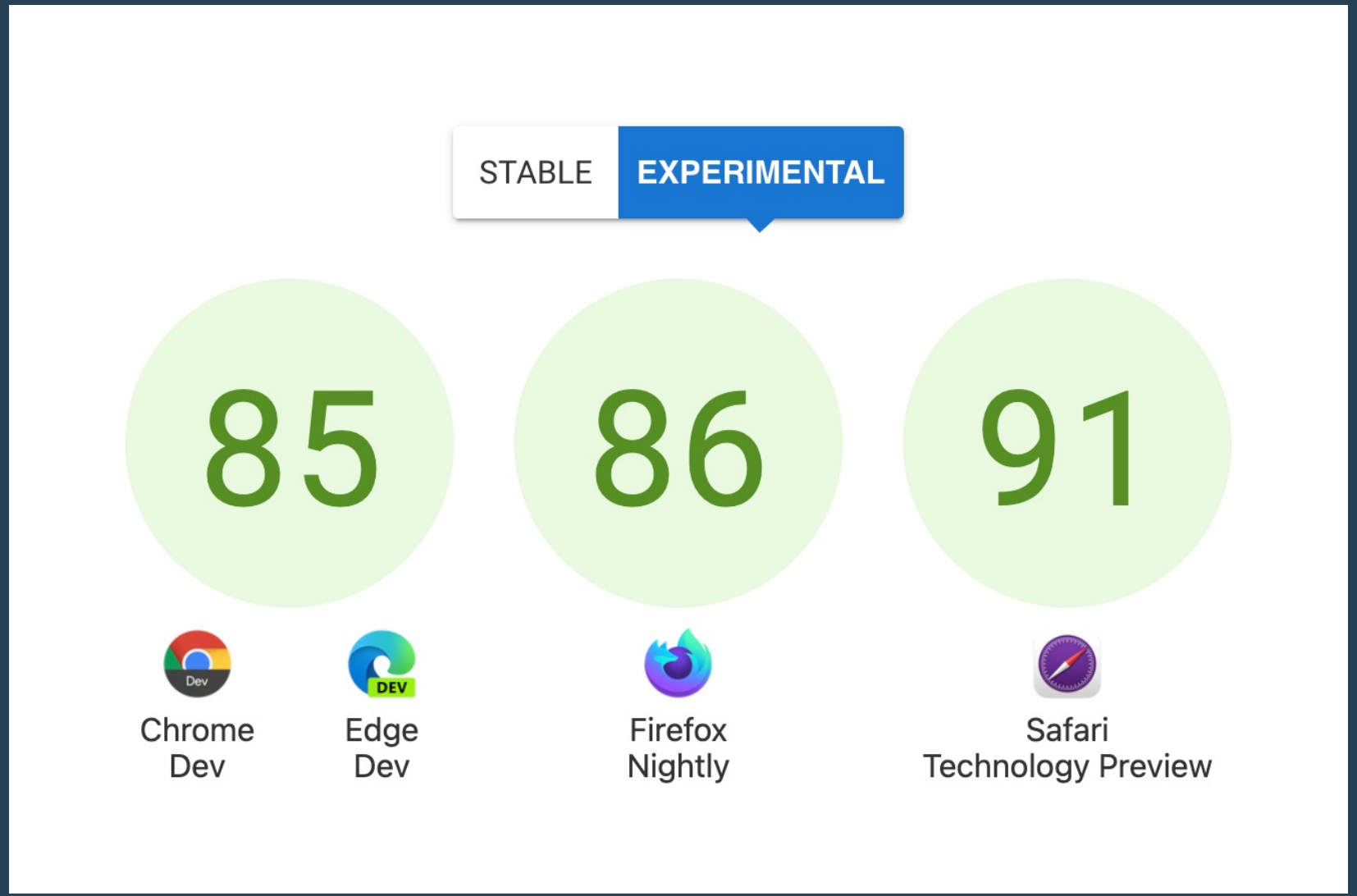


The Clifton Suspension bridge, Bristol

Bristol balloons

```
.container figure {
  display: grid;
  grid-template-rows: subgrid;
}
.caption {
 grid-row: 2;
}
```

Subgrid



wpt.fyi/interop-2022 - November 2022

CSS Containment

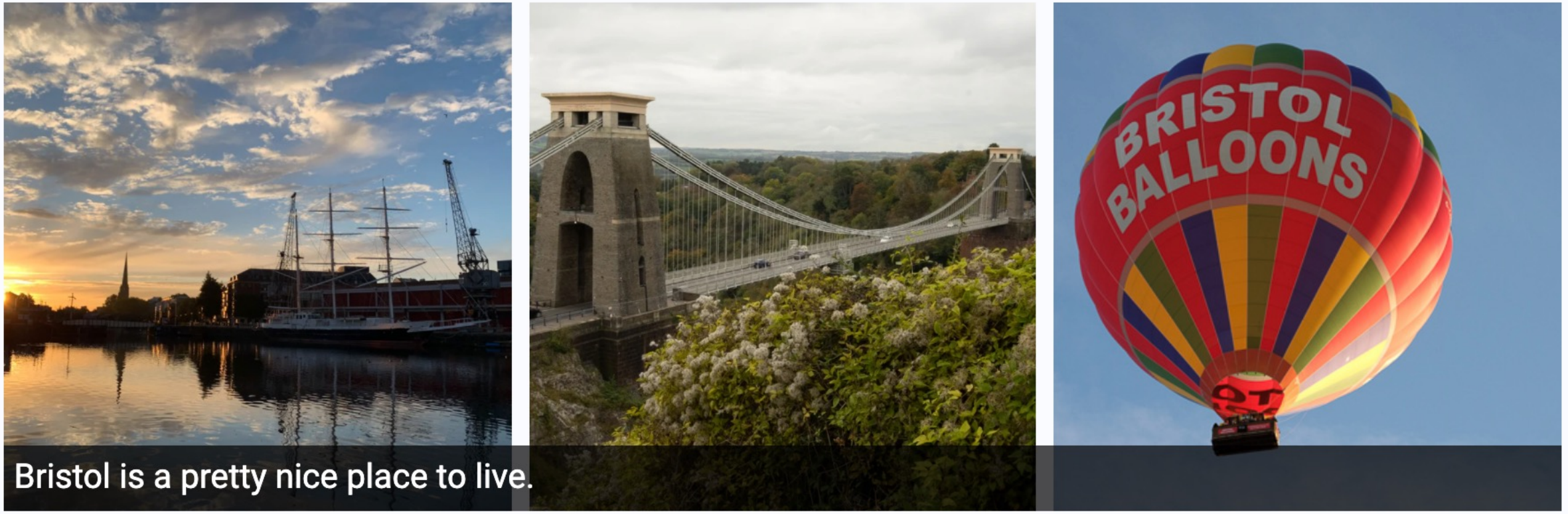
This box and children are independent from the rest of the layout.

```
.sidebar {
  contain: layout;
}
```

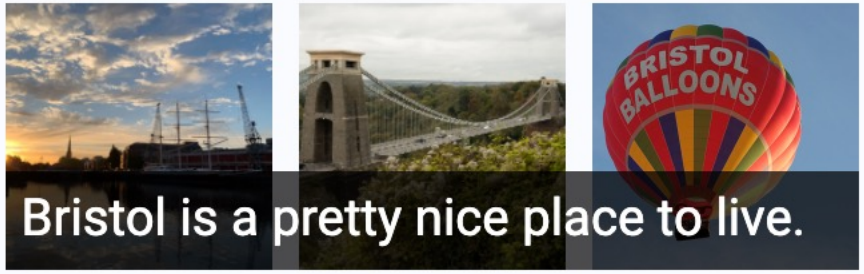
Use the contain property now!

Container Queries

Design components that can react to the available space in their container.


BRISTOL
BALLOONS
Bristol is a pretty nice place to live.

400px


BRISTOL
BALLOONS
Bristol is a pretty nice place to live.

```
.sidebar {
  container-type: inline-size;
}
```

Using container-type creates a containment context.

This also turns on layout, style, and inline-size containment, in the same way as using the contain property does.

```
.sidebar {
  container-type: inline-size;
  container-name: sidebar;
}
```

```
@container (min-width: 400px) {
  .card {
    display: grid;
    grid-template-columns: 1fr 2fr;
  }
}
```

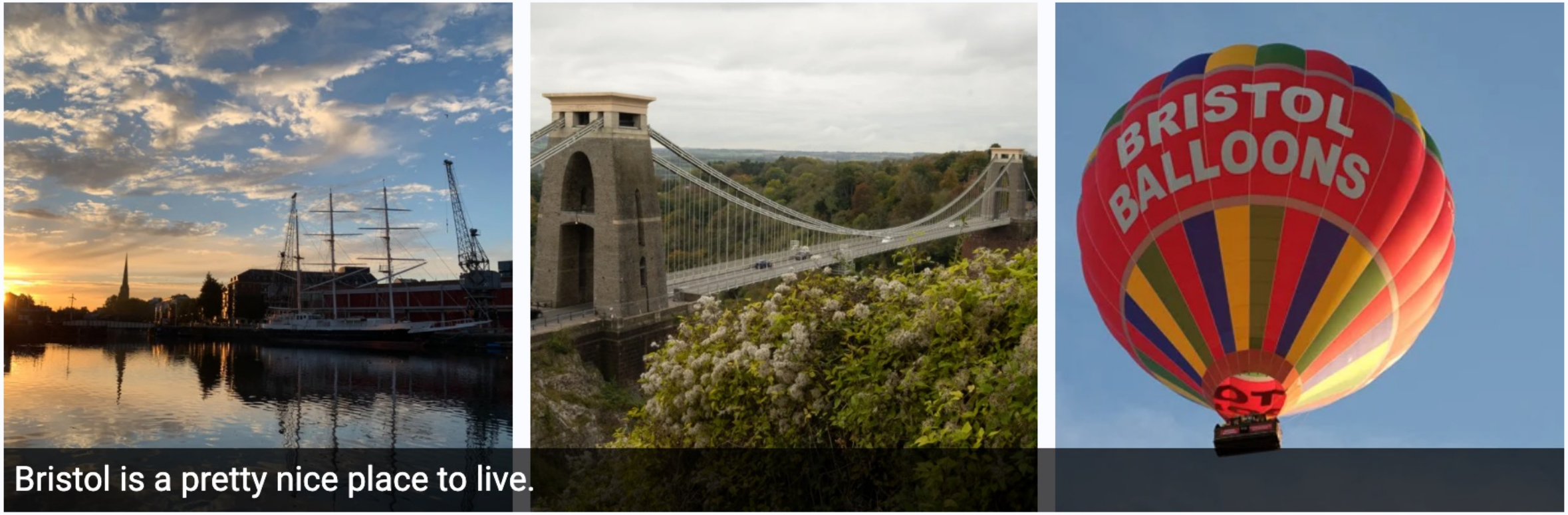
```
@container sidebar (min-width: 400px) {
  .card {
    display: grid;
    grid-template-columns: 1fr 2fr;
  }
}
```

One
Two
Three
Four

```
.wrapper > div {
  container-type: inline-size;
}

@container (min-width: 220px) {
  .box {
    background-color: var(--blue-sapphire);
  }
}
```

```
.fig-panel {
  display: grid;
  grid-template-columns: 1fr 1fr;
}
```




```
@container (min-width: 700px) {
  grid-template-columns: repeat(3,1fr);
}
```

Container Queries

This seems so simple!
Why did it take so long?

RenderingNG deep-dive: LayoutNG

Published on Friday, October 8, 2021

Ian Kilpatrick
Layout tech lead

Koji Ishi
Layout engineer

This post is a part of a series on the Chromium rendering engine. Check out the rest of the series to learn more about RenderingNG, the architecture, key data structures, and VideoNG.

I'm Ian Kilpatrick, an engineering lead on the Blink layout team, along with Koji Ishii. Before working on the Blink team, I was a front-end engineer (before Google had the role of "front-end engineer"), building features within Google Docs, Drive, and Gmail. After around five years in that role I took a large gamble switching to the Blink team, effectively learning C++ on the job, and attempting to ramp up on the massively complex Blink codebase. Even today, I only understand a relatively small portion of it. I'm grateful for the time given to me during this period. I was comforted by the fact a lot of "recovering front-end engineers" made the transition to being a "browser engineer" before me.

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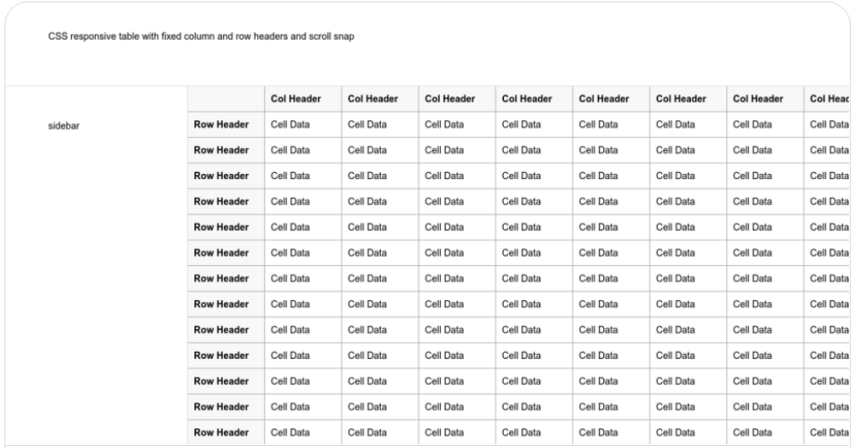
- A 30,000 foot view of layout engine architectures
- Types of layout bugs
  - Correctness
  - Under-invalidation
  - Hysteresis
  - Over-invalidation and performance
- In summary

Scott Jehl
@scottjehl

Wow... Okay, so here's something I've been trying to do for at least 10 years!

A CSS-only responsive table with fixed column & row headers, inside a layout, with scroll snapping! 🥳
codepen.io/scottjehl/pen/...

Works in: Firefox, Safari (iOS & Mac), Chrome (Mobile & Desktop), Edge



CSS responsive table with fixed column and row headers and scroll snap
...
codepen.io

4:15 PM · Jun 22, 2021 · Twitter Web App

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Putting it together

Container Queries and subgrid

A nice picture of a balloon.

A nice picture of a balloon.

```
@container grid (min-width: 600px) {
  .item {
    display: grid;
    grid-template-columns: subgrid;
  }
}
```

Thank you!

Find me @rachelandrew

Slides at: https://noti.st/rachelandrew