```
tt()
```

Schedule

1. Storytelling
2. Transitions
3. CSS Keyframes
4. JS Animations

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Storytelling

Storytelling

So why do we use storytelling?

Storytelling

1. It is a way of connecting people.
2. It is ambiguous.
3. Stories *stick* with people.

Storytelling

1. It is a way of connecting people.
2. It is ambiguous.
3. Stories *stick* with people.

English

THE Fallen OF World War II

or

INTERACTIVE

Requires a modern computer.
Experimental.

VIDEO

Better for mobile, Apple TV,
Chromecast ...

IGN

START

FINISH

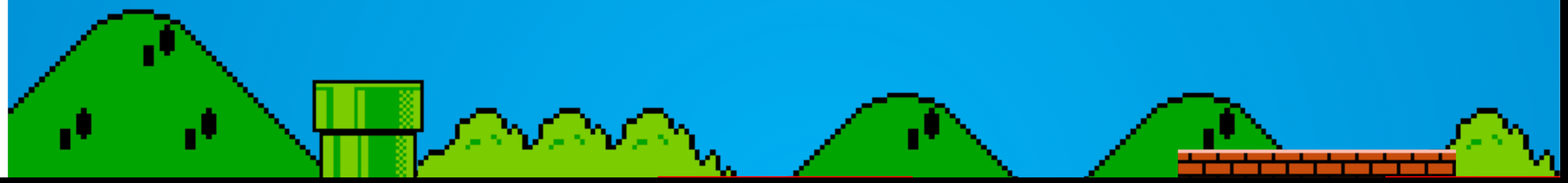
Share Your #MarioMemories

IGN Presents

THE MUSEUM OF MARIO

An interactive experience exploring the many eras of Mario. Turn on the audio and click around to find hidden interactions!

Built by Intel's HTML5 Hub in collaboration with IGN



Storytelling

So, how can we do it?

Storytelling

Explain the why.

Storytelling

Emotion is a big seller.

Storytelling

Make it simple.

Storytelling

Create anticipation

Storytelling

Use the information gap.

Schedule

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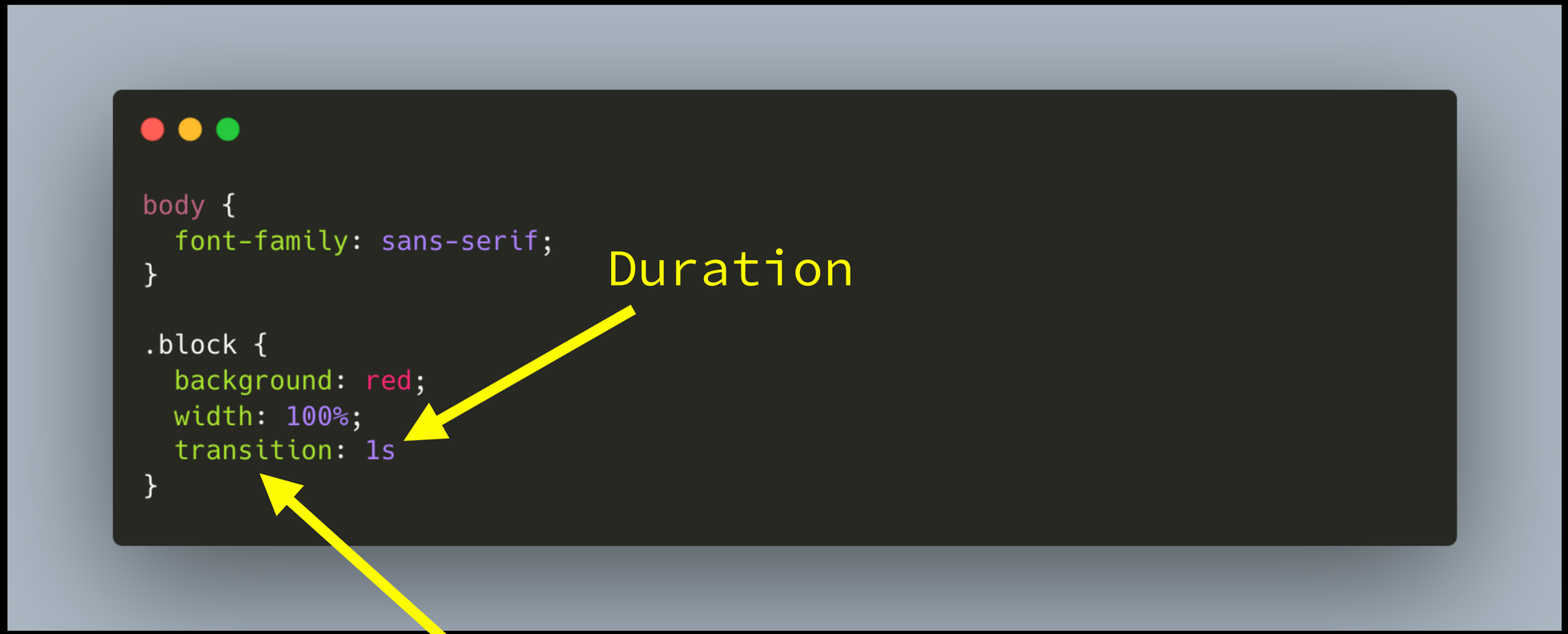
Transitions

```css
body {
  font-family: sans-serif;
}

.block {
  background: red;
  width: 100%;
  transition: 1s
}
```

Transitions



Storytelling

1. We use it to transition between states, such as hover, focus, active etc.

2. It is applicable on many CSS properties

3. It is extremely memory efficient in comparison to the alternatives.

Storytelling

However, transitions require interactivity and user input

What if we don’t want that?

Schedule

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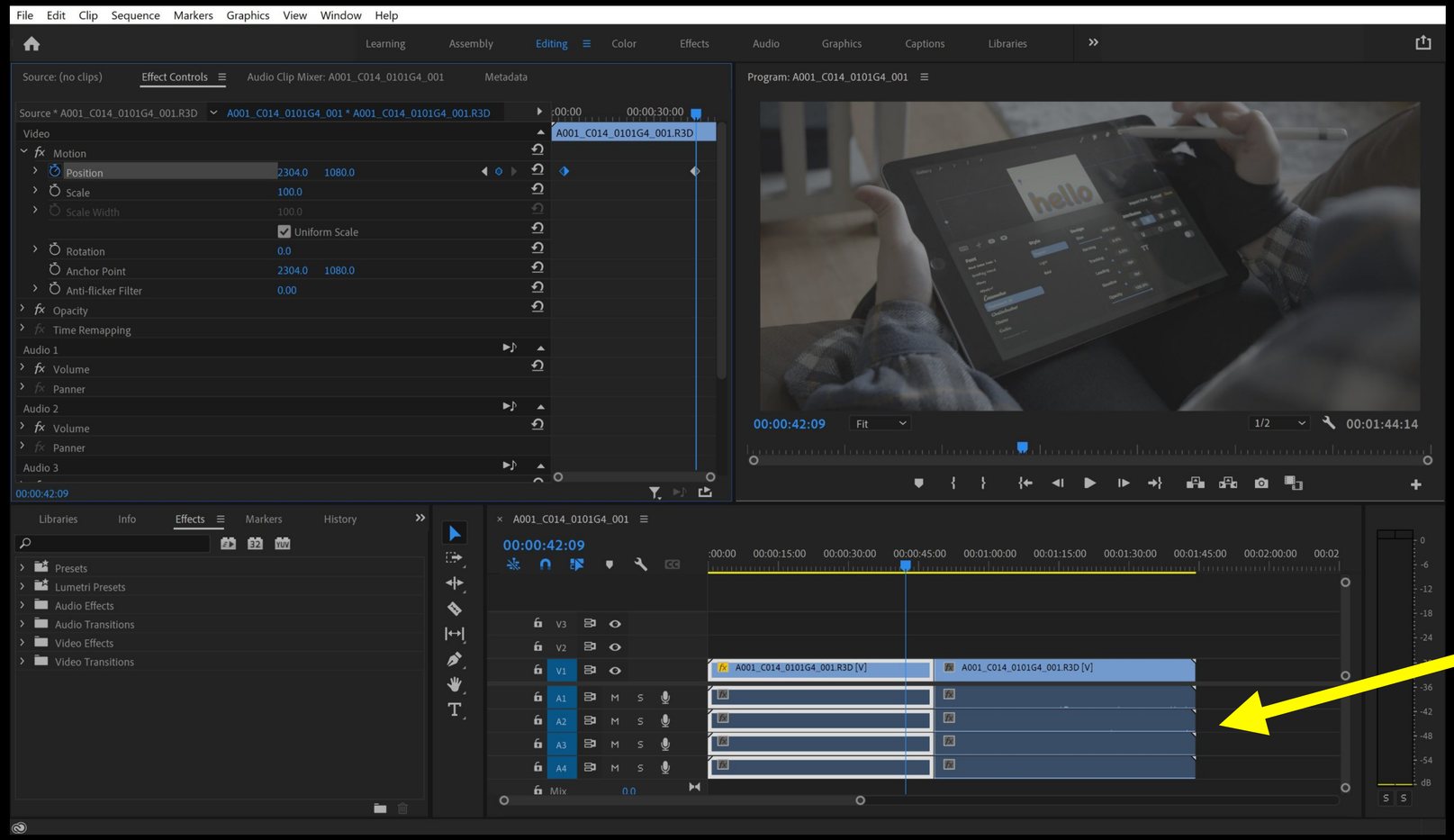
Keyframes



This is a timeline that includes some keyframes

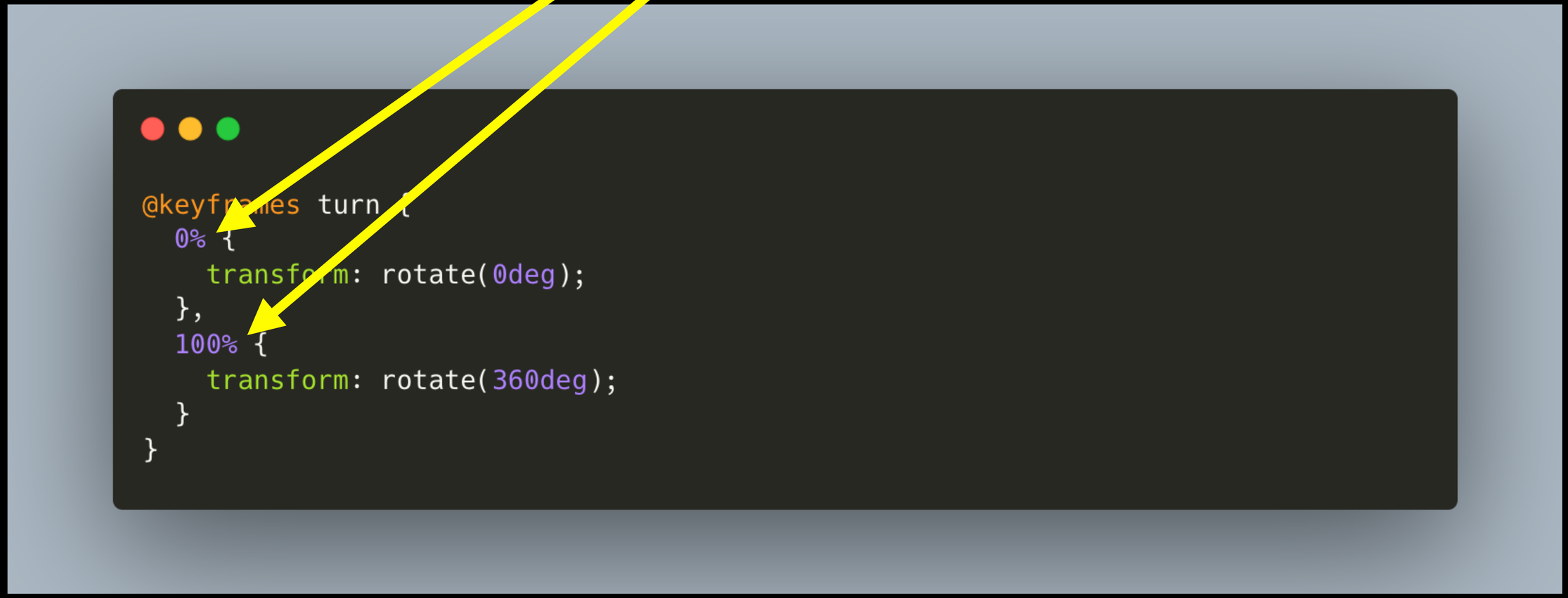
Keyframes

We can write them in CSS

```css
@keyframes turn {
  0% {
    transform: rotate(0deg);
  },
  100% {
    transform: rotate(360deg);
  }
}
```

Keyframes

The percentage is the
relative location
on the invisible “timeline”



```
@keyframes turn {
  0% {
    transform: rotate(0deg);
  },
  100% {
    transform: rotate(360deg);
  }
}
```

Keyframes

Inside here is what actually happens

```
@keyframes turn {
  0% {
    transform: rotate(0deg);
  },
  100% {
    transform: rotate(360deg);
  }
}
```

Keyframes

Let’s fire up a codepen.

Schedule

1. Storytelling
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4. **JS Animations**

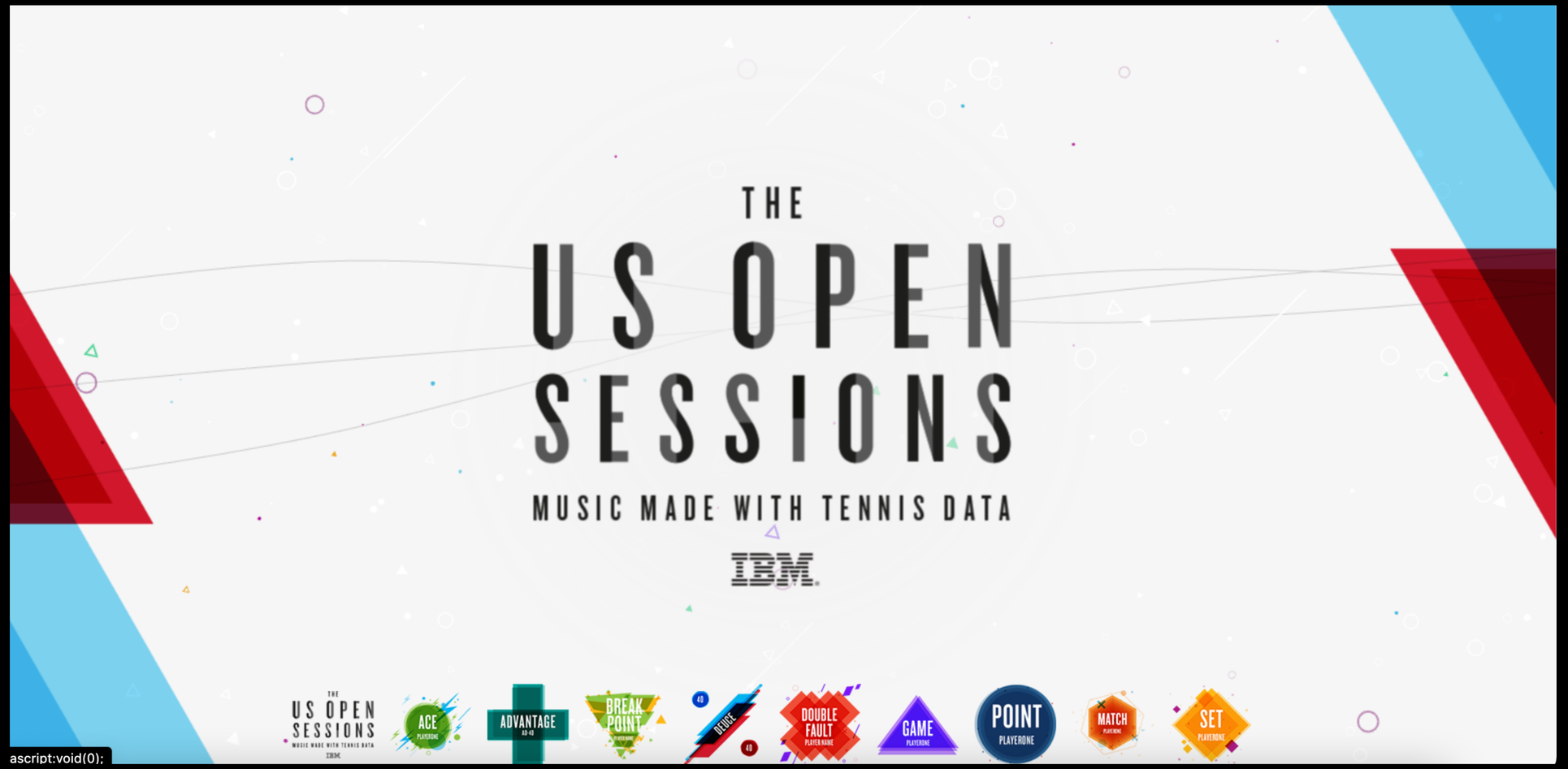
JS Animations

1. It gives us an enormous amount of control and flexibility
2. Although that is not always needed.

JS Animations

JS Animations

JS Animations



ascript:void(0);

JS Animations

GSAP 3 Cheat Sheet

Most code is linked to the appropriate page in the Docs

Links: Get started | Install | Forums | Tips | Learning | CodePen | Club

Basics

```
// "to" tween (animate to provided values)
gsap.to(".selector", { // selector text, Array, or object
  x: 100, // any properties (not limited to CSS)
  backgroundColor: "red", // camelCase
  duration: 1, // seconds
  delay: 0.5,
  ease: "power2.inOut",
  stagger: 0.1, // stagger start times
  paused: true, // default is false
  overwrite: "auto", // default is false
  repeat: 2, // number of repeats (-1 for infinite)
  repeatDelay: 1, // seconds between repeats
  repeatRefresh: true, // invalidates on each repeat
  yoyo: true, // if true > A-B-B-A, if false > A-B-A-B
  yoyoEase: true, // or ease like "power2"
  immediateRender: false,
  onComplete: myFunc,
  // other callbacks:
  // onStart, onUpdate, onRepeat, onReverseComplete
  // Each callback has a params property as well
  // i.e. onUpdateParams (Array)
});
```

```
// "from" tween (animate from provided values)
```

https://greensock.com/docs/v3/GSAP/gsap.to() (Vars});

Timelines

```
// Create a timeline
let tl = gsap.timeline({
  delay: 0.5,
  paused: true, // default is false
  repeat: 2, // number of repeats (-1 for infinite)
  repeatDelay: 1, // seconds between repeats
  repeatRefresh: true, // invalidates on each repeat
  yoyo: true, // if true > A-B-B-A, if false > A-B-A-B
  defaults: { // children inherit these defaults
    duration: 1,
    ease: "none"
  },
  smoothChildTiming: true,
  autoRemoveChildren: true,
  onComplete: myFunc,
  // other callbacks:
  // onStart, onUpdate, onRepeat, onReverseComplete
  // Each callback has a params property as well
  // i.e. onUpdateParams (Array)
});
```

```
// Sequence multiple tweens
tl.to(".selector", {duration: 1, x: 50, y: 0})
  .to("#id", {autoAlpha: 0})
  .to(elem, {duration: 1, backgroundColor: "red"})
```

Keyframes

Let’s fire up a codepen.

Keyframes

Assignment:

Now it’s your turn! Upgrade your SVG assignment from week 1 into an animation powered by GSAP.

Uncaught SyntaxError
Unexpected end of input