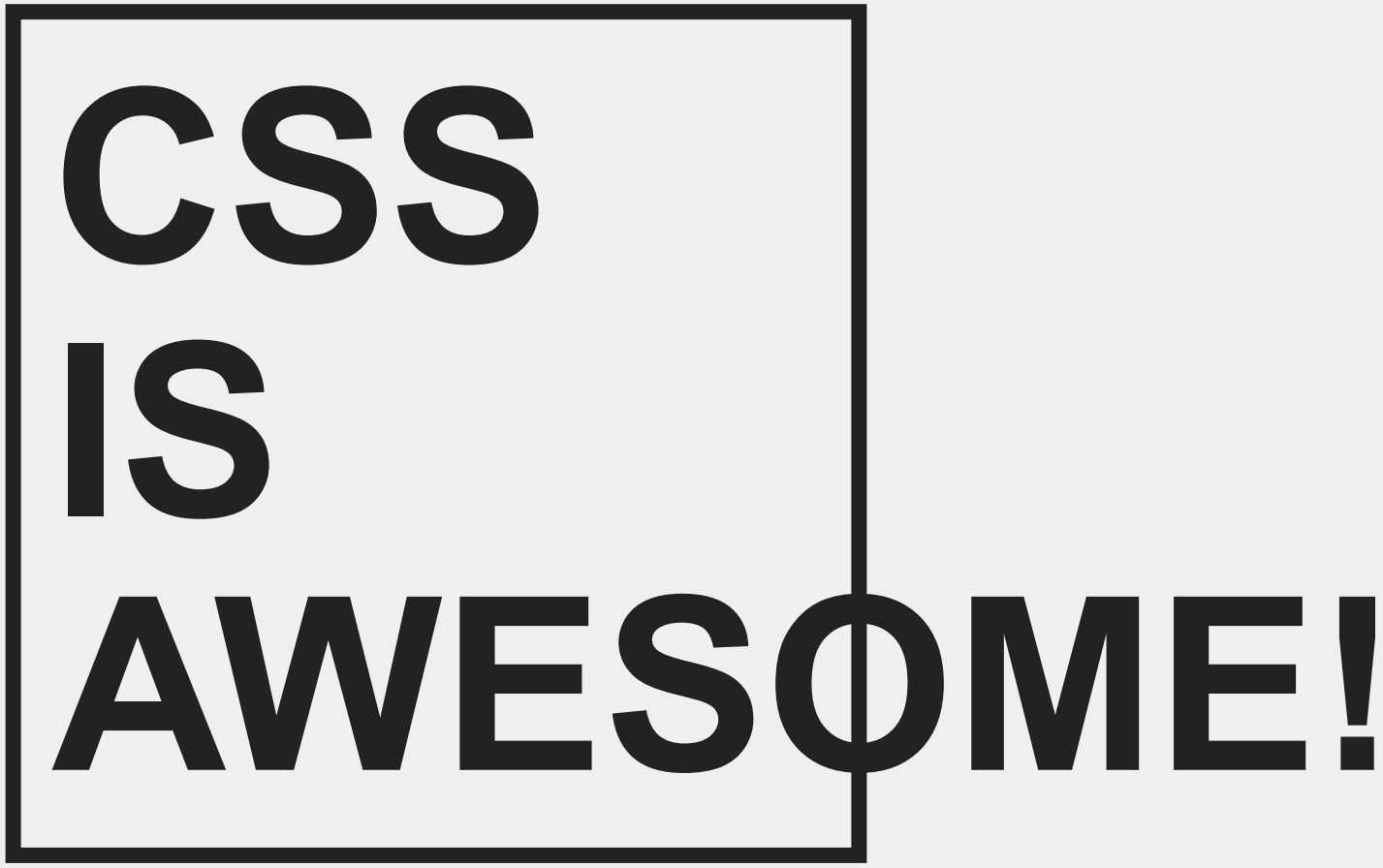
CSS
IS
AWESOME!

$ whoami

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➳ The Rule of Least Power

<https://www.w3.org/2001/tag/doc/leastPower.html>

> *When designing computer systems, one is often faced with a choice between using a more or less powerful language for publishing information, for expressing constraints, or for solving some problem. This finding explores tradeoffs relating the choice of language to reusability of information. The "Rule of Least Power" suggests* ***choosing the least***

Règles du jeu

1. Texte
2. HTML (sémantique) & CSS (layout, style, animations simples)
3. SVG (formes et animations complexes)
4. JavaScripts

⚠️ *... mais il y a toujours de bonnes raisons pour ne*

Le CSS c'est vaste

- Selectors
- Box model
- Float
- Media Query
- Transitions
- Responsive Design
- Media
- Variables
- Colors
- Shapes

Plan

I. Utiliser un pré-processeur ?

II. Unités

III. Flexbox et Grid

IV. Pseudo éléments

V. Animations

VI. Pseudo classes d'état

VII. HTML

VIII. Compatibilité des navigateurs

Utiliser un pré-processeur ?

Bordure des boutons


```
button {
  background: lightblue;
  border: medium solid purple;
}
button.danger { /*
   background: salmon;
   color: rebeccapurple; */
}
```

Alors utilise-t-on un pré–processeurs ?

Oui, mais privilégiez:

- le CSS
- les post–processeurs

- ➳ `currentColor` <https://css-tricks.com/currentcolor/>
- ➳ `background-origin`

  <https://developer.mozilla.org/fr/docs/Web/CSS/background-origin>
- ➳ CSS Variables (aka Custom Properties)

  <https://www.w3.org/TR/css-variables/>

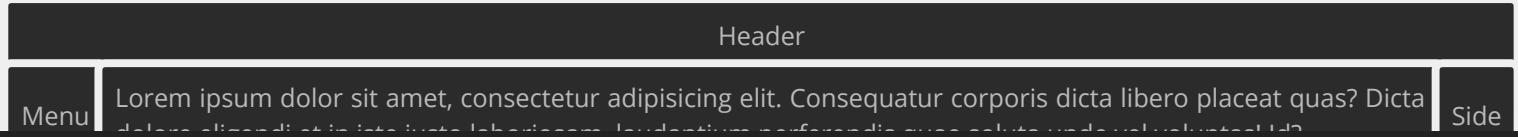
Unités

Une histoire d'unités CSS

Les unités de longueur

px, cm, pt, ...	longueurs absolues (mesure physique)
em, rem	fonction de la `font-size`
ex, ch	hauteur d'un x, largeur d'un `0`
vh, vw	(100vh, 100vw) = (hauteur, largeur) du *viewport*

Holy Grail avec `calc`

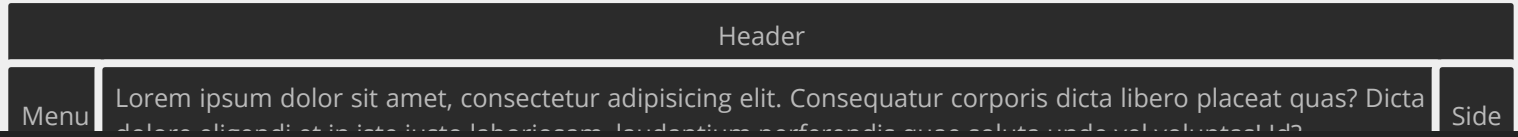


Bilan unités

- ➳ Unités <https://developer.mozilla.org/fr/docs/Web/CSS/length) et [Truc et astuces](https://www.w3.org/Style/Examples/007/units.fr.html>

Flexbox et Grid

Holy Grail avec `flexbox`



Holy Grail avec grid

Bilan Flexbox & Grid

Flexbox

- ➳ Flexbox, et le CSS redevient fun ! (Hubert SABLONNIÈRE) <https://www.youtube.com/watch?v=5F_ngjHDcJQ>
- ➳ Solved by Flexbox <https://philipwalton.github.io/solved-by-flexbox/>
- ➳ Flexbox Froggy <https://flexboxfroggy.com/>

Grid

- ➳ Grid by examples <https://gridbyexample.com/>
- ➳ CSS Grid Changes Everything (About Web Layouts) by Morten Rand-Hendriksen <https://www.youtube.com/watch?v=txZq7Laz7_4>
- ➳ Grid Garden <http://cssgridgarden.com/>

Pseudo éléments

Le dinner d'un philosophe

```
.table {
  color: gray;
  font-size: 5em;
  /*content: '';*/
}
```

Triangle avec des bordures

```
div.top, div.right, div.bottom, div.left {
  border: 1em solid transparent;
  display: inline-block;
  box-shadow: 0 0 0 .1em transparent;
}

div.top { border-top-color: transparent; }
div.right { border-right-color: transparent; }
div.bottom { border-bottom-color: transparent; }
div.left { border-left-color: transparent; }
```

Info-bulle


```
.popover {
  position: relative;
  background: teal;
}

/*.popover::before {
  position: absolute;
  z-index: 0;
  content: '';
  top: 0em; left: 0em;
  border: 1em solid red;
  border-top-color: red;
}*/
```

Bilan pseudo éléments

- ➳ The :before and :after pseudo-elements <https://www.w3.org/TR/CSS22/generate.html#before-after-content>
- mais aussi `::first-letter`, `::first-line`, `::selection`, `::backdrop`
- ➳ An Ultimate Guide To CSS Pseudo-Classes And Pseudo-Elements <https://www.smashingmagazine.com/2016/05/an-ultimate-guide-to-css-pseudo-classes-and-pseudo-elements>

⚠️ `::before` et `::after` ne marchent pas sur `input`, `img`, `iframe` (pas encore spécifié)

- Table et assiette de ➳ CSS Diner <https://flukeout.github.io/>
- ➳ Dîner des philosophes

Animations

Texte de chargement

```
.loader {
  display : inline-block;
  white-space : normal;
  height: 1em;
  line-height : 1.5;
  overflow: auto;
  box-shadow  : 0 0 0 .05em red;
}

.loader::before {
  display : inline-table;
  /*content: '0\a 1\a 2\a 3\a 4\a 5\a 6\a 7\a 8\a 9';*/
  /*content: '⁖\a ⁖\a ⁖\a ⁖\a ⁖\a ⁖\a ⁖\a ⁖\a ⁖\a ⁖';*/
  /*animation: spin 5s infinite;*/
}

@keyframes spin {
  to { transform : translateY(-15em); }
}
```

Dessiner

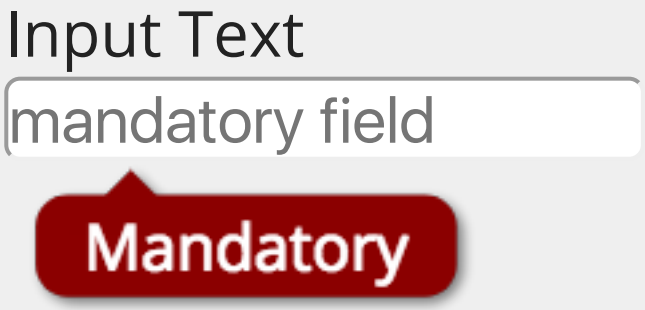

```
svg path {
  stroke: purple;
  stroke-width: .1em;
  fill: none;
  /*stroke-dasharray: 0;*/
  /*stroke-dashoffset: 0;*/
  /*animation: draw 4s linear;*/
}

@keyframes draw {
  to { stroke-dashoffset: 0; }
}
```

Bilan animations

- ➳ Utiliser les animations CSS <https://developer.mozilla.org/fr/docs/Web/CSS/Animations_CSS/Utiliser_les_animations_CSS>
- ➳ Text Spinner <http://tawian.io/text-spinners/>
- ➳ CSS only loader <https://www.pexels.com/blog/css-only-loaders/>
- ➳ Animate.css <https://daneden.github.io/animate.css/>
- ➳ How SVG Line Animation Works <https://css-tricks.com/svg-line-animation-works/>
- ➳ `<progress>`

Pseudo classes d'état

Usage des info-bulles



Pseudo états

- `:hover`
- `:focus`
- `:visited`
- `:checked`
- `:valid`
- `:invalid`
- `:empty`
- `:target`

Checkbox


```
.like input[type=checkbox] + label {
    box-shadow: 0 0 0 1px red;
}
.like input[type=checkbox] + label::before {
    content: '';
}
.like input[type=checkbox] + label::before {
    content: '';
}
.like fieldset input[type=checkbox] { opacity: 1; }
```

Switch

```css
.switch + label {
  display: block;
  position: relative;
  padding: .1em;
  width: 2em;
  height: 1em;
  background-color: #ccc;
  border-radius: 1em;
  border: medium solid #444;
  transition: 0.4s;
}

.switch:checked + label {
  background-color: green;
}
```

```css
.switch + label::before {
  display: block;
  position: absolute;
  content: '';
  top: 0.1em;
  left: 0.1em;
  height: 1em;
  width: 1em;
  background-color: #fff;
  border-radius: 50%;
  transition: all 0.25s;;
}

.switch:checked + label::before {
  transform: translateX(1em);
}
```

Panel

```
.panel input[type=checkbox] {
    /* hide me */
}
```

Principe pour les onglets

Démo des onglets

HTML

Panel

```
details {
  border: medium solid currentcolor;
  border-radius: .25em;
  width: 100%;
}

details summary {
  background: #888; color: #eee;
}
```

Dialog

```
.editable dialog {
  border: medium solid rgba(0, 0, 0, 0.3);
  border-radius: .125em;
  padding: .125rem;
  box-shadow: .25em .25em .125em rgba(0, 0, 0, 0.42);
}

/* .editable dialog::backdrop {
  position: fixed;
  top: 0; right: 0; bottom: 0; left: 0;
  background-color: rgba(0, 0, 0, 0.8);
} */
```

Polyfill

- ➳ Collapsible Panel Polyfill <https://github.com/chemerisuk/better-details-polyfill/>

Compatibilité des navigateurs

➳ **caniuse** <http://caniuse.com>

➳ **The CSS3 / CSS4 Test** <http://css3test.com>

IE 7+, Firefox, Chrome	Pseudo classes (CSS3 selectors *93*)
IE 8+, Firefox, Chrome	`::before`, `::after` *98*
IE 9+, Firefox, Chrome	`currentColor` *98*
`background-origin` *98*	`box-shadow` *98*
`calc` *97*	`vh`, `vw`, ... *97*
IE 10+, Firefox, Chrome	`flexbox` *98*

Conclusion

Bilan

1. Utilisez du CSS pour simpifier le code
2. Utilisez intelligemment les pre/post–processeurs
3. HTML, SVG are Awesome !

👉 Traitez le CSS comme du code

1. Revue de code
2. DRY
3. Clean Code
4. Single Responsibility Principle

Liens

- ➳ les slides <>
- ➳ le code <>

Pour apprendre

- `(Ctrl|Cmd) + Shift + i`
- 

➳ CSS Secret by Lea Verou <https://www.amazon.fr/CSS-Secrets-Lea-Verou/dp/1449372635>
- ➳ CSS sur MDN <https://developer.mozilla.org/fr/docs/Web/CSS>
- ➳ CodePen <https://codepen.io/> , ➳ JSFiddle <https://jsfiddle.net/> , ➳ Dabblet <http://dabblet.com/> ,...
- ➳ CSS Tricks <>
- ➳ Shop Talk Show <>

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