CSS IS AWESOME!

\$ whoami

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The Rule of Least Power

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 powerful language suitable for a given purpose.

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 pas suivre ces règles

Le CSS c'est vaste

- Selectors
- Box model
- Float
- Media Query
- Transitions
- Gradients

- Responsive Design
- Media
- Variables
- Colors
- Shapes
- •

- 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
 - IX. Conclusion

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

• w3c CSS Variables (aka Custom Properties)

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

• w3c CSS Color Module Level 4 < https://www.w3.org/TR/css-color-4/>



Unités









CommitStrip.com

CommitStrip http://www.commitstrip.com/fr/2016/10/10/a-story-about-css-units/

Les unités de longueur

px, cm, pt, ... longueurs absolues (mesure physique)

em, rem fonction de la font-size

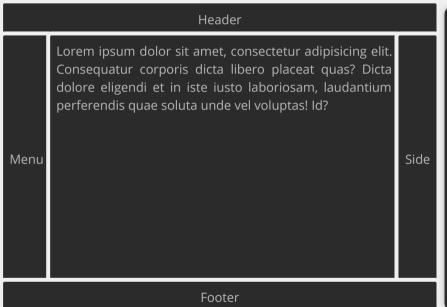
ex, ch hauteur d'un x, largeur d'un 0

vh, vw (100vh, 100vw) = (hauteur, largeur) du

viewport

vmin, vmax min(1vh, 1vw), max(1vh, 1vw)

Holy Grail avec calc

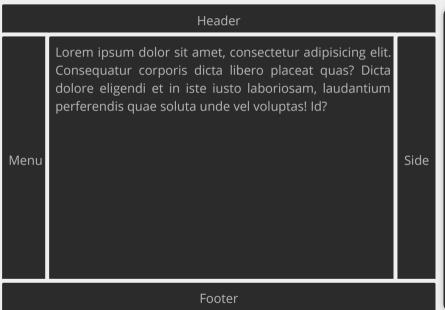


Bilan unités

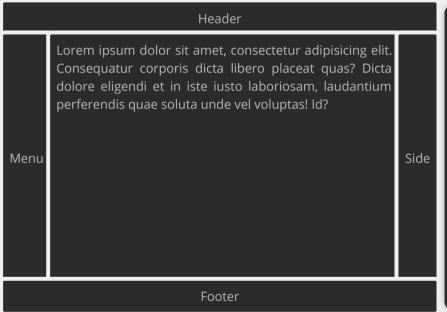
- Wunités https://developer.mozilla.org/fr/docs/Web/CSS/length>
- w3c Truc et astuces https://www.w3.org/Style/Examples/007/units.fr.html
- Calc https://developer.mozilla.org/fr/docs/Web/CSS/calc

Flexbox et Grid

Holy Grail avec flexbox



Holy Grail avec grid



Bilan Flexbox & Grid

Flexbox

- **Example 1** 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
- Find 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

https://www.w3.org/TR/CSS22/generate.html#before-after-content

- mais aussi :: first-letter, :: first-line,:: selection, :: backdrop
- S 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/>
- W 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 :\a :\*/
  /*animation: spin 5s infinite;*/
akeyframes spin {
 to { transform : translateY(-15em); }
```

Dessiner

```
.editable 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

Wutiliser 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/>

https://developer.mozilla.org/fr/docs/Web/HTML/Element/Progress

Pseudo classes d'état

Usage des info-bulles

Input Text
mandatory field
Mandatory

→ hover me <#usage_des_info_bulles>

Pseudo états

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

```
.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

```
.switch + label {
                                   .switch + label::before {
 display: block;
                                     display: block;
                                     position: absolute;
 position: relative;
                                     content: '';
 padding: .1em;
 width: 2em:
                                     top: 0.1em;
 height: 1em;
                                     left: 0.1em:
 background-color: #ccc;
                                     height: 1em;
 border-radius: 1em;
                                     width: 1em;
 border: medium solid #444;
                                     background-color: #fff;
                                     border-radius: 50%:
 transition: 0.4s;
                                     transition: all 0.25s;
.switch:checked + label {
 background-color: green;
                                   .switch:checked + label::before {
                                     transform: translateX(1em);
```

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

Principe pour les onglets

```
<div class="tabs">
 <input type="radio" name="tab" id="home" checked>
 <input type="radio" name="tab" id="projects">
 <input type="radio" name="tab" id="about">
 <nav>
   <label for="home">Home</label>
    <label for="projects">Projects</label>
    <label for="about">About</label>
 </nav>
 <div data-for="home">Home page</div>
 <div data-for="projects">Projects page</div>
 <div data-for="about">About page</div>
</div>
```

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/
- Dialog Polyfill https://github.com/GoogleChrome/dialog-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!
- 4. JavaScript, TypeScript could be Awesome!



- 1. Revue de code
- 2. DRY
- 3. Clean Code
- 4. Single Responsibility Principle
- 5. ...

Liens

les slides en HTML < https://ilaborie.github.io/slides/devfest-

tls.html#cssIsAwesome>

- les slides en PDF https://ilaborie.github.io/slides/devfest-tls.pdf
- le code https://github.com/ilaborie/slides
- Making Of

http://www.monkeypatch.io/2017/05/02/MakingOf_CSS_is_Awesome.html

Pour apprendre



>> CSS Secret by Lea Verou https://www.amazon.fr/css-secrets-

Lea-Verou/dp/1449372635>

- KCSS sur MDN https://developer.mozilla.org/fr/docs/Web/CSS
- CodePen https://codepen.io/">, → JSFiddle , →
 Dabblet ,...
- * CSS Tricks https://www.smashingmagazine.com/>
- CSS Flags https://pixelastic.github.io/css-flags/

CSS is Awesome!