DÉVELOPPEMENT D'APPLICATIONS WEB

COURS 4: CSS - COULEUR

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Plan du cours

- 1. Noms de couleurs CSS
- 2. Valeurs de couleur RGB et HSL
- 3. Couleurs de premier plan et d'arrière plan
- 4. Images de fond

Décrire une couleur

Une couleur pourra être décrite de trois façons

- Grâce à un mot-clé (nom de couleur) : red, green, blue, etc.
- en utilisant le système de coordonnées cubiques RGB (grâce à la notation #-hexadecimal ou aux notations fonctionnelles rgb() et rgba())
- en utilisant le système de coordonnées cylindriques HSL (grâce aux notations fonctionnelles hsl() et hsla())

Noms de couleurs CSS

Spécifiez la couleur de premier plan ou d'arrière-plan à l'aide de l'un des 140 noms de couleurs CSS3 prédéfinis:

```
h1 { color: red; }
h2 { color: darkviolet; }
body { background-color: papayawhip; }
```

- À savoir plus :
 - https://www.learningwebdesign.com/colornames.html
 - https://www.color-hex.com/

Valeurs numériques de couleurs

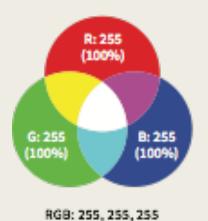
Pour plus de contrôle, définit les couleurs numériquement à l'aide de l'un des modèles de couleur suivants:

- RGB (combinaison des valeurs de lumière rouge, verte et bleue)
- RGBa (RGB plus transparence alpha)
- HSL (teinte, saturation et luminosité)
- HSLa (HSL plus transparence alpha)

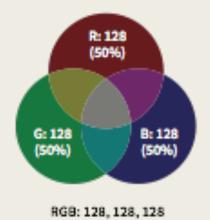
Couleur RGB

- Le modèle de couleur RGB mélange les couleurs avec la lumière rouge, verte et bleue.
- Chaque canal peut avoir 256 nuances, pour des millions d'options de couleur.

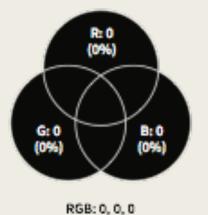
The RGB Color Model



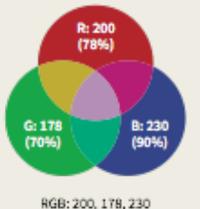
white.



gray



black



pleasant lavender

Valeurs RGB dans les règles de style

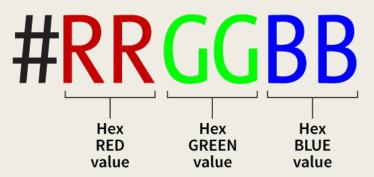
Il existe quatre formats pour fournir des valeurs de couleur RGB:

- Valeurs RGB (0 à 255): rgb (200, 178, 230)
- Valeurs en pourcentage: rgb(78%,70%,90%)
- Valeurs hexadécimales: #C8B2E6
- Valeurs hexadécimales condensées (pour les chiffres à deux chiffres uniquement): #F06 est identique à #FF0066

Valeurs RGB hexadécimales

■ Les valeurs rouge, verte et bleue sont converties en hexadécimal et précédées du symbole #.

Hexadecimal RGB values must be preceded by the # symbol.



Couleur RGBa

- RGB + un canal alpha pour la transparence
- Les trois premières valeurs sont RGB. Le quatrième est le niveau de transparence de 0 (transparent) à 1 (opaque).

Playing with RGBa

Playing with RGBa

Playing with RGBa

```
color: rgba(0, 0, 0, .1);
color: rgba(0, 0, 0, .5);
```

color: rgba(0, 0, 0, 1);

HSL et HSLa

- HSL = Hue-Saturation-Lightness
- Couleurs décrites par les valeurs de teinte (°), saturation (%) et luminosité (%):

- La teinte spécifie la position (en degrés) sur une palette de couleurs qui a le rouge à 0 °, le vert à 120 ° et le bleu à 240 °.
- HSL est moins utilisé que RGB, mais certains le trouvent plus intuitif.
- HSLa ajoute une valeur alpha pour la transparence.

Couleur de premier plan

color

- Valeurs: valeur de couleur (nommée ou numérique)
- Exemple: blockquote {border: 4px dashed; color: green;}
- Le premier plan d'un élément est constitué de son texte et de sa bordure (s'il en existe une spécifiée).

In the latitude of central New England, cabbages are not secure from injury from frost with less than a foot of earth thrown over the heads. In mild winters a covering of half that depth will be sufficient; but as we have no prophets to foretell our mild winters, a foot of earth is safer than six inches.

Couleur de fond [1]

background-color

- Valeurs: valeur de couleur (nommée ou numérique)
- Exemple: blockquote {border: 4px dashed; background-color: green;}
- La zone de peinture d'arrière-plan d'un élément remplit la zone située derrière le texte jusqu'au bord extérieur de la bordure.

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Couper le fond [2]

background-clip

- Valeurs: border-box, padding-box, content-box
- Spécifie où se termine la zone de peinture d'arrière-plan.

```
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background-clip: border-box;

background-clip: padding-box;
```

Opacité

opacity

- Valeurs: nombre (0 à 1)
- **■** Exemple:

```
h1 {color: gold; background: white; opacity: .25;}
```

Spécifie le niveau de transparence de 0 (transparent) à 1 (opaque):

```
Playing with opacity

Playing with opacity

opacity: .25;

Opacity: .5;

Playing with opacity

opacity: 1;
```

Images de fond

background-image

- Valeurs: url(emplacement de l'image), none
- Example:

body {background-image: url(star.png);}

Localise une image à utiliser comme le carrelage des images d'arrière-plan derrière un élément. Par défaut, il commence dans le coin en haut à gauche et se répète horizontalement et verticalement:



Répétition du fond [1]

background-repeat

- Valeurs: repeat, no-repeat, repeat-x, repeat-y, space, round
- Définit la façon dont les images utilisées en arrière-plan sont répétées
- Spécifie comment l'image d'arrière-plan est répétee sur l'axe horizontal, l'axe vertical ou bien ne pas être répétée :
 - **repeat-x**: Se répéter uniquement horizontalement
 - repeat-y: Se répéter verticalement seulement
 - space: ajoute de l'espace autour des images pour qu'elles tiennent dans la fenêtre sans rognage
 - round: L'image est répétée autant que possible et est étirée si nécessaire afin qu'il n'y ait ni rognage ni espace restant

Répétition du fond [2]



Position de fond [1]

background-position

- Valeurs: Length, percentage, left, center, right, top, bottom
- Spécifie la position initial, la première image placée en arrière-plan à partir de laquelle les images en carrelage s'étendent.
- Exemples (la position horizontale commence en premier):

```
background-position: left bottom;
```

background-position: 300px 100px;

background-position: 25% 100%;

Position de fond [2]

For this reason I believe that the office of the head is similar to and as necessary as that of the leaves which unwrap from around the blossom buds of our fruit trees. It is true that the parallel cannot be fully maintained, as the leaves which make up the cabbage head do not to an equal degree unfold (particularly is this true of hard heads); yet they exhibit a vitality of their own, which is seen in the deeper green color the outer leaves soon attain, and the change from tenderness to toughness in their structure.

background-position: left bottom;

300px -----

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background-position: 300px 50px;

<---->

For this reason I believe that the office of the head is similar to and as necessary as that of the leaves which unwrap from around the blossom buds of our fruit trees. It is true that the parallel cannot be fully maintained, as the leaves which make up the cabbage head do not to an equal degree unfold (particularly is this true of hard heads); yet they exhibit a vitality of their own, which is seen in the deeper green color the outer leaves soon attain, and the change from tenderness to toughness in their structure.

background-position: 25% 100%;

Pièce jointe

background-attachment

- Valeurs: scroll, fixed, local
- Définit si la position de l'image d'arrière-plan est fixée dans la zone d'affichage (viewport) ou si celle-ci défile avec le bloc englobant.



A large non-repeating background image in the body of the document.



background-attachment: scroll;

By default, the background image is attached to the body element and scrolls off the page when the page content scrolls.



background-attachment: fixed;

When background-attachment is set to fixed, the image stays in its position relative to the browser viewing area and does not scroll with the content.

Taille du fond

background-size

- Valeurs: length, percentage, auto, cover, contain
- Spécifie la taille de l'image d'arrière-plan



target.png 300 × 300 pixels

WHAT A CABBAGE IS.

If we gut vertically through the middle of the head, we shall find it made up of successive layers of jeaves, which grow snadler and smaller, minuted an infinitum. Now, If we take a fruit hod from an upple tree and make a similar societies of it, we whill find the same streetime. If we observe the development of the two, as spring advances, we shall find another similarly (in boser the head the closer will be the establishment)—the outer leaves of each will unwarp and unfold, and a flower lines, with tips, shot if from each; there we see that a catables is a bod, as even for all find took may be termed, the production of seed being the primary object in nature, the finite exclosing at playing but a societary part), the office of the leaves being to core, reprotect, and alternated southink the good bedown as the statement of the production of seed being the primary object in nature, the good bedown to the statement of the statem

The outer leaves which surround the bend appear to have the same office as the leaves which surround the growing fruit bod, and that office closes with the first year, as does that of the leaves surrounding fruit bod, when each die and droy off. In my locality the public is must have preceived more or less sclerally due analogy between the heads of cobbage and the bods of trees, for when they speak of small bends they frequently call them "bods." That the close wrapped leaves which make the calobage bend and surround the word grow, instead just in the middle of the bend at the termination of the streng, are necessary for in protection and nutrition when young, a proved, It dank, but fact, that those arthurges, the heads of which are made decayed, when got that it need, no matter bods, so the degree may be at the cost of the starting, never make to large or healthy a coed shoot as those do the heads of which are sound, as not a, the public particles growth, they die.

background-size: 600px 300px;

WHAT A CABBAGE IS.

If we cut vertically through the middle of the head, we shall find it made up of successive layers of leaves, which grow smaller and smaller, almost ai minimum. Now, if we take a finit bod from an upple-tree and make a similar section of it, we shall find the sims streament. If we observe the development of the now, us upple advances, we shall find another similarly (the booser the head the closer will be the resemblance).—the outprise of each will use unwarp and unfold, and a fower stem will pash out from care. Here we see that a catologe is a bod, as seed bad (on all that thods may be termed, the production of seed being the primary object in nature, the first exchange a block as accounting supple, the office of the stead being the primary object in state, the first exchange a block as a secondary good, the office of the stead being the primary object in state, the first exchange a block as a secondary good, the office of the stead being the primary object in state, the first exchange a block as a secondary good, the office of the stead being the primary object in state, the first exchange a block as a contradity good good about.

The outer leaves which surround the head appear to have the same office as the leaves which surround the growing fruit bud, and that office closes with the first year, as does that of the leaves surrounding fruit bud, when each die and drop off, in any locality the public to must have perceived more or less clearly the anialogy between the heads of closes, for when they speak of small heads they frequently call them "beds." That the close wrapped leaves which made the caleboge head and unround the sould goes them. The die close wrapped leaves which made the caleboge head and surround the sould goes in proved. It flain, by the fact that those calebogs, the heads of which are much closely of, when so ten for treed, no manter how social the seed grown may be at the end of the stung, never make so large or healthy a seed shoot as those do the heads of which are can be closely only the soul of the reputing a feed by the heads of the providing should be sound, so a role, they providing a feed by grown, they do not the providing a feed by the providing a feed by grown, they give a feed by the public as feed by grown, they give a

background-size: cover;

The entire background area of the element is covered, and the image maintains its proportions even if it is clipped.

WHAT A CABBAGE IS.

If we cut vertically through the misdie of the head, we shall find it made up of successive layers of leaves, which grow smaller and smaller, almost ad infinitum. Now, if we take a finite bod from an apple-tree and make a similer section of it, we shall find the same sentence. If we obstive the development of the two, as spring advances, we shall find another similarity the longer the head the closer will be the resemblance).—The outer leaves of each will see the resemblance).—The outer leaves of each will see that the contract of the c

The outer knews which surround the hapit appear to have the same office as the leaves which surround the growing finit bot, and that office alones with the first your, as does that of the knews surrounding finit bids, when each die and drop off. In my locality the aphilia must have precived more clean feathy the analogy between the heads of cabbage and the bads of trees, for when they speak of small heads they frequently call them "bads." That the close wayped leaves which must be achievely he dad an surround the seed game, situated just in the middle of the head an the termination of the stump, are recessary for its protection and mutition when young, is proved, I think, by the fart that those cabbages, the heads of which are much decayed, when set out fire seed, no matter how would the seed garm may be at the end of the stump, never make so large or healthy a seed shoot as those do the heads of which are succeed, as a rate, after passing a feeding provide, they yet.

background-size: contain;

The image is sized proportionally so it fits entirely in the element. There may be room left over for tiling (as shown).

Propriété d'arrière-plan abrégé

- Valeurs: background-color background-image background-repeat background-attachment background-position background-clip backgroundorigin background-size
- Spécifie toutes les propriétés d'arrière-plan dans une déclaration

```
background: white url(star.png) no-repeat top
center fixed;
```

- Les propriétés sont optionnelles et peuvent apparaître dans n'importe quel ordre.
- Les propriétés non représentées sont réinitialisées à leurs valeurs par défaut.

Plusieurs images de fond

 Vous pouvez placer plusieurs images de fond dans une seule image (séparées par des virgules):

```
body {
    background:
        url(image1.png) left top no-repeat,
        url(image2.png) center center no-repeat,
        url(image3.png) right bottom no-repeat;
}
```

Question?