Chapter 3 CSS Part 2 Colors and Backgrounds

INT102 Web Technologies (1/2021)

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Color in CSS

- Two ways to specify colors in CSS
 - Predefined color name

```
color: red; color: olive; color: blue;
```

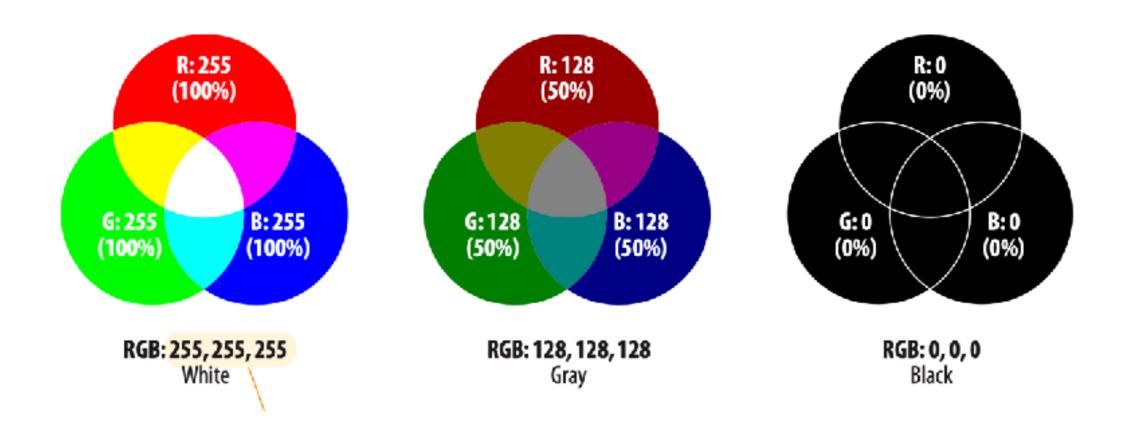
RGB color with a numeric value

```
color: #FF0000; color: #808000; color: #00F;
```

RGB color model

- Computers create the colors by combining the three colors of light: red, green and blue (known as RGB color model).
- The amount of light in each color is described on a scale from 0 (none) to 255 (full-blast).
- It can also be provided in a percent (255 or 100%).
- The closer the three values get to 255 (100%), the closer the resulting color gets to white.
- The colors can also be defined with HSL color (Hue, Saturation, Lightness).

RGB model



Setting RGB Color value

 CSS allows RGB color values to be specified in a number of formats.

```
#00000ff

#00f

rgb(0,0,255)

rgb(0,0,100%)
```

RGBa color

- RGBa color allows to specify a color and also make it as transparent or as opaque ("a" or "alpha").
- The alpha is an additional channel that controls the level of transparency on a scale from 0 (fully transparent) to 1 (fully opaque).

```
RGBa color: rgba(0,0,255,.1);
```

RGBa color: rgba(0,0,255,.5);

RGBa color: rgba(0,0,255,1);

Color-related properties

- List of color-related properties using with CSS:
 - color
 - to specify a foreground color of an element containing text and border
 - background-color
 - to specify a background color to any element
 - border-color
 - to specify a border color

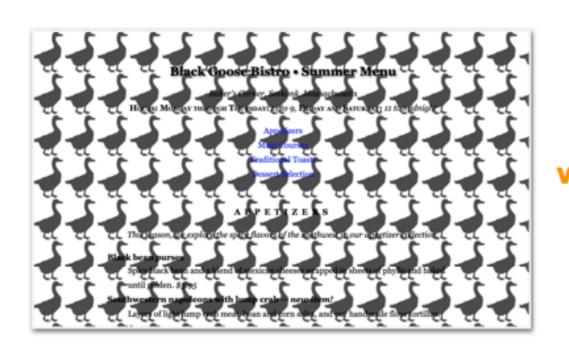
Color-related properties

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8" />
        <title>HTMLiveCode</title>
        <style type="text/css">
            blockquote {
                border: 4px dashed;
                color: #508C19;
                background-color: #B4DBE6;
        </style>
    </head>
    <body>
        <blook<br/>quote>
        I'd recommend Honey Gold cereal to anyone who likes cereal. It's the <em>only
em> way to start the day!
        — Jennifer Robbins, happy consumer
             </blockguote>
    </body>
</html>
           I'd recommend Honey Gold cereal to anyone who likes cereal. It's the only way to start the day!
             Jennifer Robbins, happy consumer
```

https://web.sit.kmutt.ac.th/sanit/int102/demo/colorquote.html

Tips for using Color

- Limit the number of colors using on a page. Too many colors can create visual chaos.
- When specifying a foreground and background color, make sure that there is adequate contrast.
 - People tend to prefer reading dark text on very light background online.
- It is a good idea to specify the foreground color and the background color (particularly for whole pages) alongside each other.





Pseudo-class Selectors

Click h	ere to vis	it SIT V	Veb site.
Click h	ere to vis	it SIT V	Veb site.
Email:			
Email:	snait@sit.	kmutt.ac.	th

Pseudo-class Selectors

- A pseudo-class is a keyword added to a selector that specifies a special state of the selected element(s).
- Pseudo-class selectors are indicated by the colon (:) character. They typically go immediately after an element name.

a:link a:over

Link pseudo-classes

 The most basic pseudo-classes selectors target links (a elements) based on whether they have been clicked.

```
:link Applies a style to unclicked (unvisited) links
:visited Applies a style to links that have already been clicked
```

 By default, browser typically display linked text as blue and links that have been clicked as purple.

```
a:link {
  color: maroon;
}
a:visited {
  color: gray;
}
```

User action pseudo-classes

Pseudo-class targets elements states that result from direct user actions.

```
Applies when element is selected and ready for input
:focus
          Applies when the mouse pointer is over the element (commonly used with
:hover
links)
           Applies when the element (such a link or button) is in the process of being
:active
clicked or tapped
input:focus {
    background-color: yellow;
a:hover {
   color: maroon;
   background-color: #ffd9d9;
a:active {
   color: red;
   background-color: #ffd9d9;
```

https://web.sit.kmutt.ac.th/sanit/int102/demo/demo_active.html

Background Images

- Using the img element to add images to the content of the document.
- Most decorative images are added to pages and elements as backgrounds using CSS.
- The properties related to background images are:
 - background-image
 - background-repeat
 - background-position
 - background-attachment
 - background-clip (CSS3)
 - background-size (CSS3)
 - background (shortcut)

Adding a background image

background-image

Values: url(location of image) | none | inherit

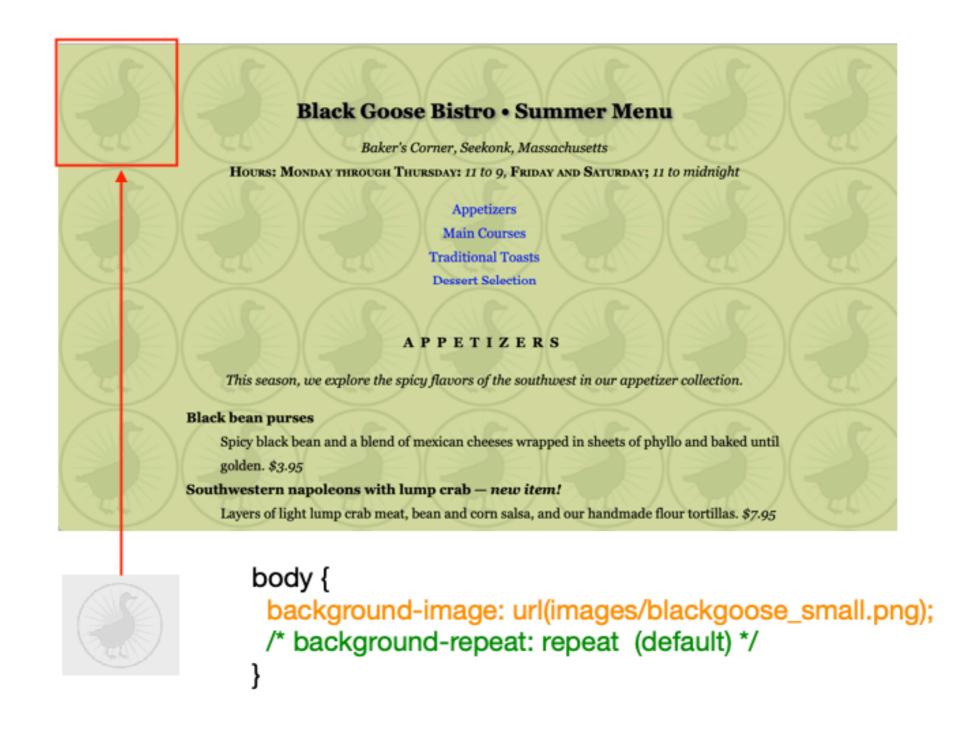
Default: none

Applies to: all elements

Inherits: no

- The URL is relative to wherever the CSS is.
- If the rule is an embedded style sheet, the URL should be relative to the location of the HTML.
- If the rule is in an external style sheet, the URL should be relative to the location of the .css file.

Adding a background image



Controlling tiling direction

background-repeate

Values:	repeat repeat-x repeat-y no-repeat inherit
Default:	repeat
Applies to:	all elements
Inherits:	no

 Use the no-repeat value to display a background image just once.

background-repeat

Black Goose Bistro • Summer Menu

no-repeat

Black Goose Bistro • Summer Menu

Baker's Corner, Seekonk, Massachusetts

Hours: Monday through Thursday: 11 to 9, Friday and Saturday; 11 to midnight

repeat-x

Black Goose Bistro • Summer Menu

Baker's Corner, Seekonk, Massachusetts

Hours: Monday through Thursday: 11 to 9, Friday and Saturday; 11 to midnight

Appetizers

Main Courses

Traditional Toasts

Dessert Selection

APPETIZERS

This season, we explore the spicy flavors of the southwest in our appetizer collection.

Black bean purses

Spicy black bean and a blend of mexican cheeses wrapped in sheets of phyllo and baked until golden. \$3.95

Southwestern napoleons with lump crab — new item!

Layers of light lump crab meat, bean and corn salsa, and our handmade flour tortillas. \$7.95

repeat-y

Background position

background-position

Values: length measurement | percentage | left | center | right | top | bottom | inherit

Default: 0% 0% (same as left top)

Applies to: all elements

Inherits: no

· Keyword positioning

```
background-position: left bottom;
background-position: right; /* same as right center */
background-position: top; /* same as center top */
```

· Length measurements

background-position: 200px 50px; /* distance from top-left corner (x ,y) */

Percentages

```
background-position: 15% 100%;
/* percentage values in horizontal/vertical pairs */
/* 0% 0% corresponding to the top-left corner and 100% 100% corresponding to the bottom-right cornet */
```

background-position



background-position: right top;



background-position: center top;

Black Goose Bistro * Summer Menu

Anker's Corner, Stokens, Manachusetts

Horme Monner transcore Yestenness to to a, Fanner son-Servaness to to midnight

Appeliers:

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A P P E T I Z E R S

This assume, we explore the sping fluores of the southwest in our appelier collection.

Black bean pursus

Spiny black bean and a blend of menicus chornes wrapped in shorts of phylio and holed until gailes. Ap ag

Snoothwestern napoleona with hump orab—new drans!

Layers of light hump crab-ment, bean and corn sales, and our handmade flour tortills. Ay ag

background-position: 100% 0;

Background attachment

background-attachment

Values: scroll | fixed | local (new in CSS3) | inherit

Default: scroll

Applies to: all elements

Inherits: no

- With the background-attachment property, it allows the choice of whether the background image:
 - scrolls with the content (default)
 - or stays in a fixed position

background-attachment



Southwestern napoleons with lump crab - new item? Layers of light lump crab meat, bean and our salsa, and our handmade flour tortillas. \$7.95 MAIN COURSES Big, hold flavors are the name of the game this summer. Allow us to assist you with finding the perfect wine. Jerk rotisserie chicken with fried plantains - new item! Tender chicken slow-roasted on the retisserie, flavored with spicy and fragrant jerk sauce and served with fried plantains and fresh mange. Very spicy. \$12.95 Shrimp sate kehabs with peanut sauce Skewers of shrimp marinated in lemosgrass, garlic, and fish sauce then grilled to perfection. Served with spicy peanut sauce and jamine rice. \$12.95 Grilled skirt steak with mushroom fricasee Flavorful skirt steak marinated in asian flavors grilled as you like it". Served over a blend of sauteed wild mushrooms with a side of blue cheese masked potatoes. \$16.95 TRADITIONAL TOASTS The ultimate comfort food, our traditional toast recipes are adapted from The Whitehouse Cookbook published in 1887.

Southwestern napoleons with lump-crab - near item! Layers of light lump-crab ment, bean and corn sales, and our handmade flour tortillas. \$7.00 MAIN COURSES Big, hold flavors are the name of the game this summer. Allow us to assist you with finding the Jerk rotisserie chicken with fried plantains - may item! Tender chicken slow-roasted on the rotineerie, flavored with spicy and fragrant lerk source and served with fried plantains and fresh mange. Very spirys. \$12.95 Shrimp sate kebabs with peanut sauce Skewers of shrimp marinated in lemongrass, garlic, and fish sauce then grilled to perfection. Served with spicy peanut sauce and jasmine rice. Etc. pt. Grilled skirt steak with mushroom fricasce. Flavorful skirt steak marinated in asian flavors grilled as you like it'. Served over a blend of sauteed wild mushrooms with a side of blue cheese mashed potators. Sci. oc. TRADITIONAL TOASTS The ultimate comfort food, our traditional toast recipes are adapted from The Whitehouse Cookbook published in 1887. Simple cream sauce over highest quality toasted bread, baked daily. #3.85

background-attachment: scroll; background-attachment: fixed;

background (shortcut)

background

Values: background-color background-image background-repeat background-attachment

background-position | inherit

Default: see individual properties

Applies to: all elements

Inherits: no

- All of the property values for background are optional and may appear in any order.
- Only the coordinates for the background-position property, the horizontal value must appear first, immediately followed by the vertical value.

```
body {
    background: white url(arlo.png) no-repeat right top fixed;
}
```

Multiple backgrounds

 CSS3 allows multiple background images to be applied to a single element, and browsers are beginning to support them.

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

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

Multiple backgrounds

Cabbage Recipes

From The Whitehouse Cookbook (1887)

CARRAGE WITH CREAM.

Remove the outer leaves from a solid, small-sized head of cabbage, and cut the rimainder as fine as for slaw. Have on the fire a spider [Pg 201] or deep skillet, and when it is hot put in the cut cabbage, pouring over it right away a pint of boiling water. Cover closely and allow it to cook rapidly for ten minutes. Drain off the water and add half a pint of new milk, or part milk and cream; when it boils, stirin a large teaspoonful of either wheat or rice flour moistened with milk; add salt and pepper, and as soon as it comes to a boil, serve. Those who find slaw and other dishes prepared from cabbage indigestible will not complain of this.

LADIES' CABBAGE

Boil a firm white cabbage fifteen minutes, changing the water then for more from the boiling tos-kettle. When tender, drain and set aside until perfectly cold. Chop fine and add two beaten eggs, a tablespoonful of butter, pepper, salt, three tablespoonfuls of rich milk or cream. Stir all well together, and bake in a buttered pudding-dish until brown. Serve very hot. This dish resembles cauliflower and is very digestible and palatable.

FRIED CABBAGE

Place in a frying pan an ounce of butter and heat it boiling hot. Then take cold boiled cabbage chopped fine, or cabbage hot, cooked the same as steamed cabbage, put it into the hot butter and fry a light brown, adding two sablespoonfuls of vinegar. Very good.

FRENCH WAY OF COOKING CABBAGE.

Chop cold boiled white cabbage and let it drain till perfectly dry: stir in some milted butter to taste; pepper, salt and four tablespoonfuls of cream; after it is heated through add two well-beaten eggs; then turn the mixture into a buttered frying pan, stirring until it is very hot and becomes a delicate brown on the under side. Place a [Pg 202]hot dish over the pan, which must be reversed when turned out to be served.

SOURCROUT

Barrels having held wine or vinegar are used to prepare sourcrout in. It is better, however, to have a special barrel for the purpose. Strasburg, as well as all Alsace, has a well-acquired fame for preparing the cabbages. They slice very white and firm cabbages in fine shreds with a machine made for the purpose. At the bottom of a small barrel they place a layer of coarse salt and alternately layers of cabbage and salt, being careful to have one of salt on the top. As each layer of cabbage is added, it must be pressed down by a large and heavy pestle and fresh layers are added as soon as the juice floats on the surface. The cabbage must be seasoned with a few grains of coriander, juniper berries, etc. When the barrel is full it must be put in a dry cellar, covered with a cloth, under a plank, and on this heavy weights see placed. At the end of a few days it will begin to ferment, during which time the pickle must be drawn off and replaced by fresh, until the liquor becomes clear. This should be done every day. Renew the cloth and wash the cover, put the weights back and let stand for a month. By that time the sourcrout will be ready for use. Care must be taken to let the least possible air enter the sourcrout and to have the cover perfectly clean. Each time the barrel has to be opened it must be properly closed again. These processions must not be neglected.

External Style Sheets

- External style sheets are the most powerful way to use CSS.
- Style can be changed across an entire site simply by editing a single style sheet document.
- An external style sheet is a plain-text document with at least one style sheet rule (may not include any HTML tags).
- The style sheet should be named with the .css suffix.
- Two ways to refer to an external style sheet:
 - link element
 - @import

Using the link element

 The best-support method is to create a link to the .css document using the link element in the head of document

```
<head>
    <title>Titles are required.</title>
    <tink rel="stylesheet" href="/path/stylesheet.css">
</head>
```

- Two attributes in the link element:
 - rel = "stylesheet"
 - Define the linked document's relation to the current document.
 - · The value of the rel attribute is always stylesheet when linking to a style sheet.
 - In HTML 4.01 and XHTML 1.0, the link element must include the type attribute (type="text/css")
 - href = "url"
 - Provide the location of the .css file.
- Multiple link elements to different style sheets can be included and they will all apply.
 If there are conflicts, the last one will override previous settings.

Importing with @import

- The other method for attaching an external style sheet to a document is to import it with an @import rule.
- The @import rule can add to a style sheet:
 - in an external .css style sheet document.
 - in the style element.

```
<head>
    <title>Titles are required.</title>
    <style>
        @import url("/path/stylesheet.css");        /* or @import "/path/sylesheet.css";        without url() */
        p { font-face: Verdana;}
        </style>
</head>
```

Modular Style Sheets

Content of clientsite.css

```
/* basic typography */
@import url("type.css");
/* form inputs */
@import url("forms.css");
/* navigation */
@import url("list-nav.css");
```

- Managing frequently reuse styles in separate style sheets according to their functionality and combining them in mix-and-match fashion using @import rules
- The @import rules need to go before that use selectors.