University of
South-Eastern Norway

School of Business

WEB1100: Lecture 7
Web Development & HCI
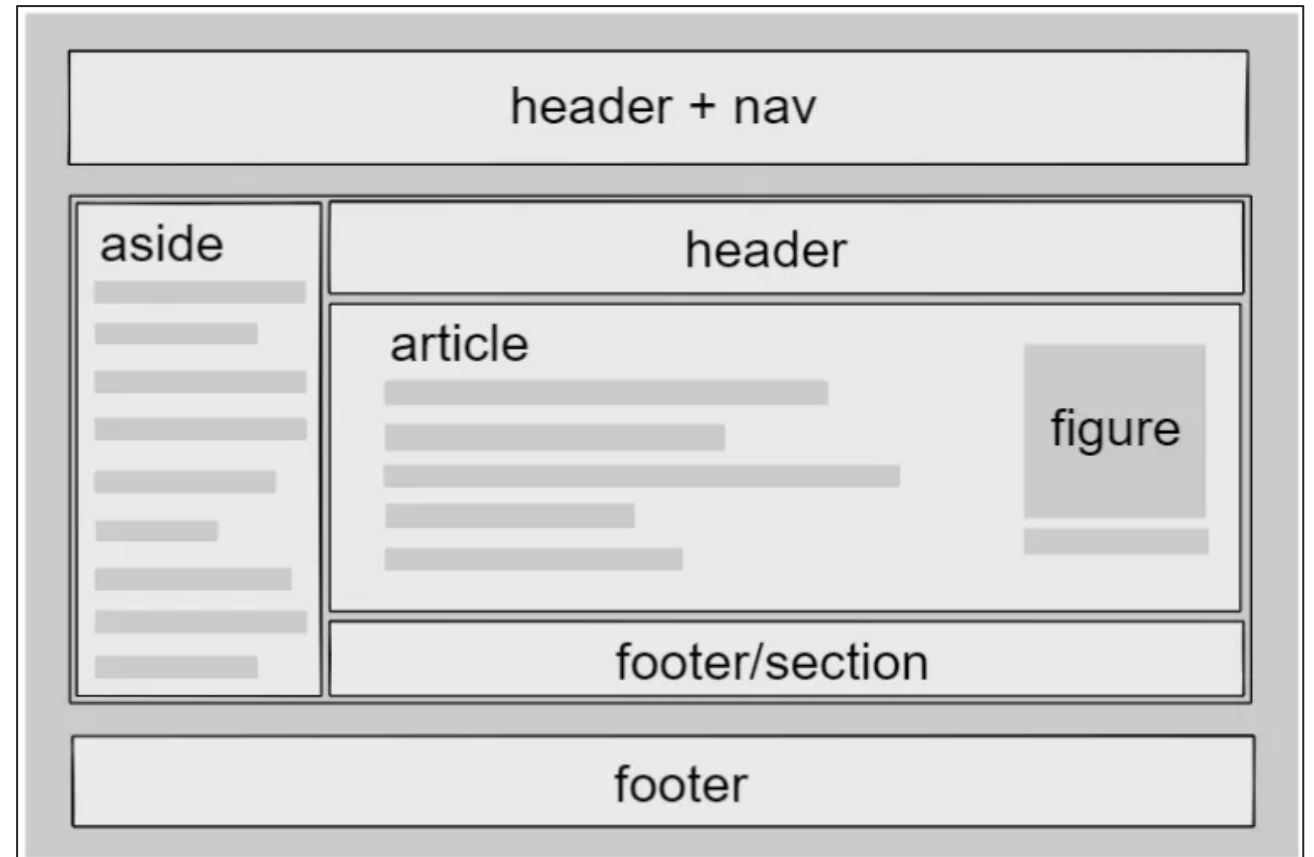
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Associate Professor

Agenda for today

- Cascading Style Sheets (CSS)

- Hypertext Markup Language (HTML)

HTML

Understanding semantic elements:

- <header></header>

- <footer></footer>

- <nav></nav>

- <section></section>

- <article></article>

- <aside></aside>

CSS

- Cascading Style Sheets

- defines style constructs/rules to fonts, colors, and positioning

- describes information formatting and display

- contains style rules

  - formatting instructions

  - contains style properties and values

  - apply styles to assigned web elements

CSS

Three main types styles:

- **Internal style sheet:**
  - placed directly within a page
  - suitable for single web page
- **External style sheet:**
  - existed in a separate document
  - has file extension .CSS and linked with special tag
  - suitable for consistent look and feel maintaining multiple web pages

- **Inline style:**
  - placed directly within a *tag* or *span*
  - suitable for individual element
  - specified in the middle of HTML code

CSS

Three ways to provide styles:

- External style sheet:

```
<head>
    <title>San Joaquin Valley Town Hall</title>
    <link rel="stylesheet" href="../styles/main.css">
    <link rel="stylesheet" href="../styles/speaker.css">
</head>
```

- Internal style sheet:

```
<style>
    body {
        font-family: Arial, Helvetica, sans-serif;
        font-size: 100%; }
    h1 { font-size: 250%; }
</style>
```

- Inline style:

```
<h1 style="font-size: 500%; color: red;">Valley Town Hall</h1>
```

CSS

Measures and colors specifications:

- Four common units of measures:

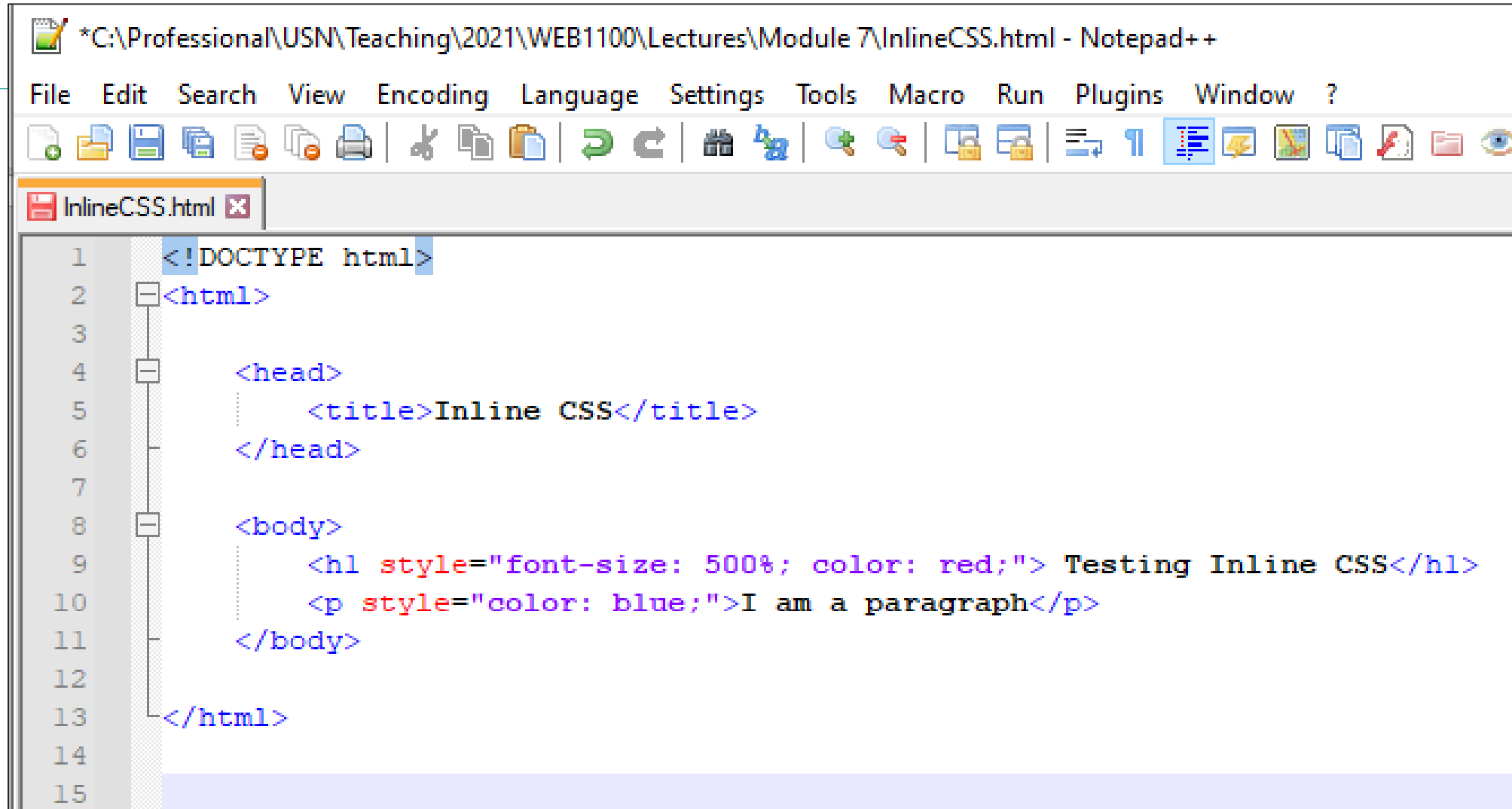| Symbol	Name	Type	Description
px	pixels	absolute	A pixel represents a single dot on a monitor. The number of dots per inch depends on the resolution of the monitor.
pt	points	absolute	A point is 1/72 of an inch.
em	ems	relative	One em is equal to the font size for the current font.
%	percent	relative	A percent specifies a value relative to the current value.

- 16 descriptive colors:

black	silver	white	aqua	gray	fuchsia
red	lime	green	maroon	blue	navy
yellow	olive	purple	teal		

```
color: #ffffff;
color: #000000;
color: #ff0000;
```
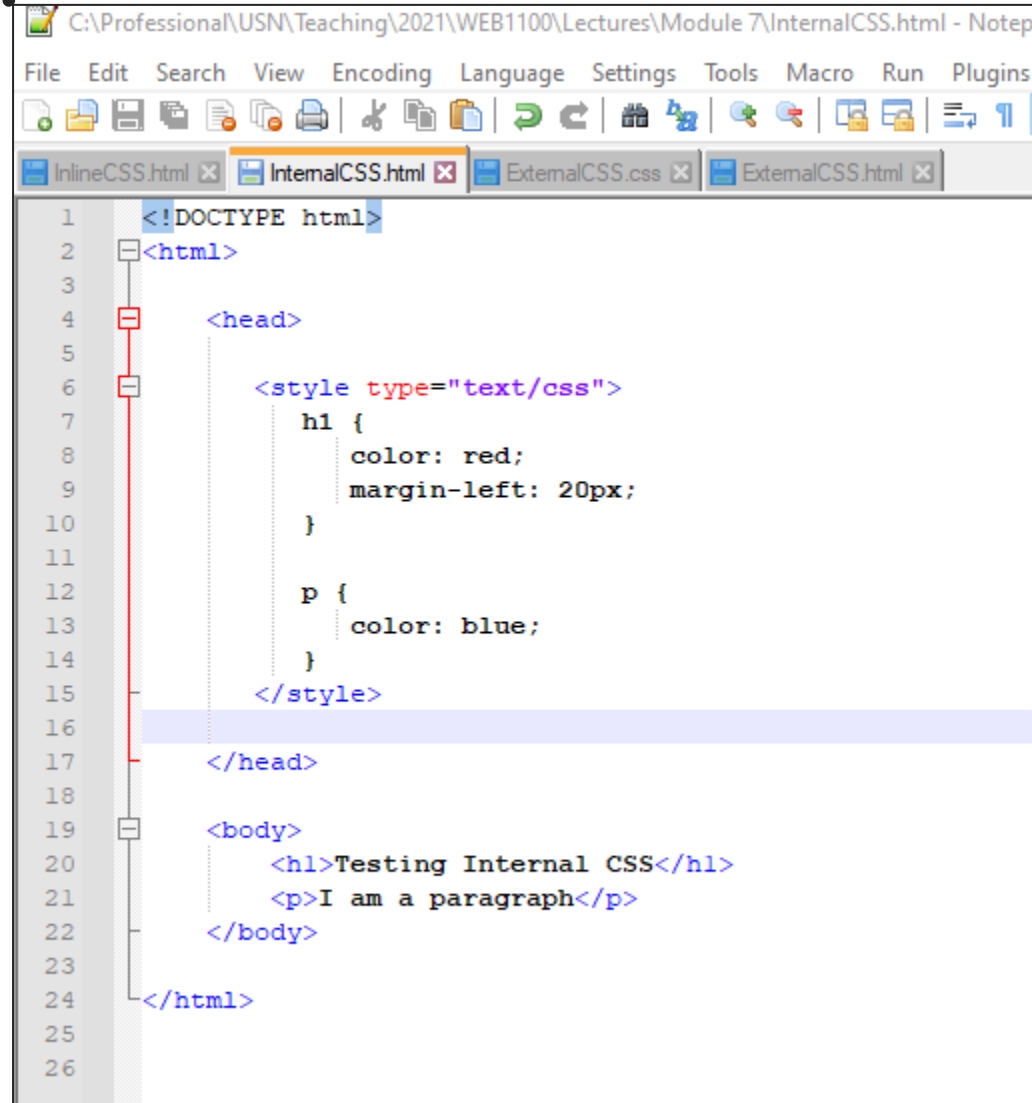
CSS

Inline style of CSS:

```
*C:\Professional\USN\Teaching\2021\WEB1100\Lectures\Module 7\InlineCSS.html - Notepad++

File   Edit   Search   View   Encoding   Language   Settings   Tools   Macro   Run   Plugins   Window   ?

InlineCSS.html

 1   <!DOCTYPE html>
 2   <html>
 3
 4       <head>
 5           <title>Inline CSS</title>
 6       </head>
 7
 8       <body>
 9           <h1 style="font-size: 500%; color: red;"> Testing Inline CSS</h1>
10           <p style="color: blue;">I am a paragraph</p>
11       </body>
12
13   </html>
14
15
```

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CSS

Internal style sheet:


```
C:\Professional\USN\Teaching\2021\WEB1100\Lectures\Module 7\InternalCSS.html - Notepa

File   Edit   Search   View   Encoding   Language   Settings   Tools   Macro   Run   Plugins

InlineCSS.html    InternalCSS.html    ExternalCSS.css    ExternalCSS.html

 1    <!DOCTYPE html>
 2    <html>
 3
 4        <head>
 5
 6            <style type="text/css">
 7                h1 {
 8                    color: red;
 9                    margin-left: 20px;
10                }
11
12                p {
13                    color: blue;
14                }
15            </style>
16
17        </head>
18
19        <body>
20            <h1>Testing Internal CSS</h1>
21            <p>I am a paragraph</p>
22        </body>
23
24    </html>
25
26
```

CSS

External style sheet:

```
1   h1 {
2       color: red;
3       margin-left: 50px;
4   }
5
6   p {
7       color: blue;
8       font-weight: bold;
9   }
10
```

ExternalCSS.css

ExternalCSS.html

```
1   <!DOCTYPE html>
2   <html>
3
4       <head>
5           <title>External CSS</title>
6           <link rel="stylesheet" href="C:\Professional\USN\Teaching\2021\WEB1100\Lectures\Module 7\ExternalCSS.css">
7       </head>
8
9       <body>
10          <h1>Testing External CSS</h1>
11          <p>I am a paragraph</p>
12      </body>
13
14  </html>
```

CSS

Cascade issue:

- the manner in which style sheet rules are applied

- more specific styles override more general styles
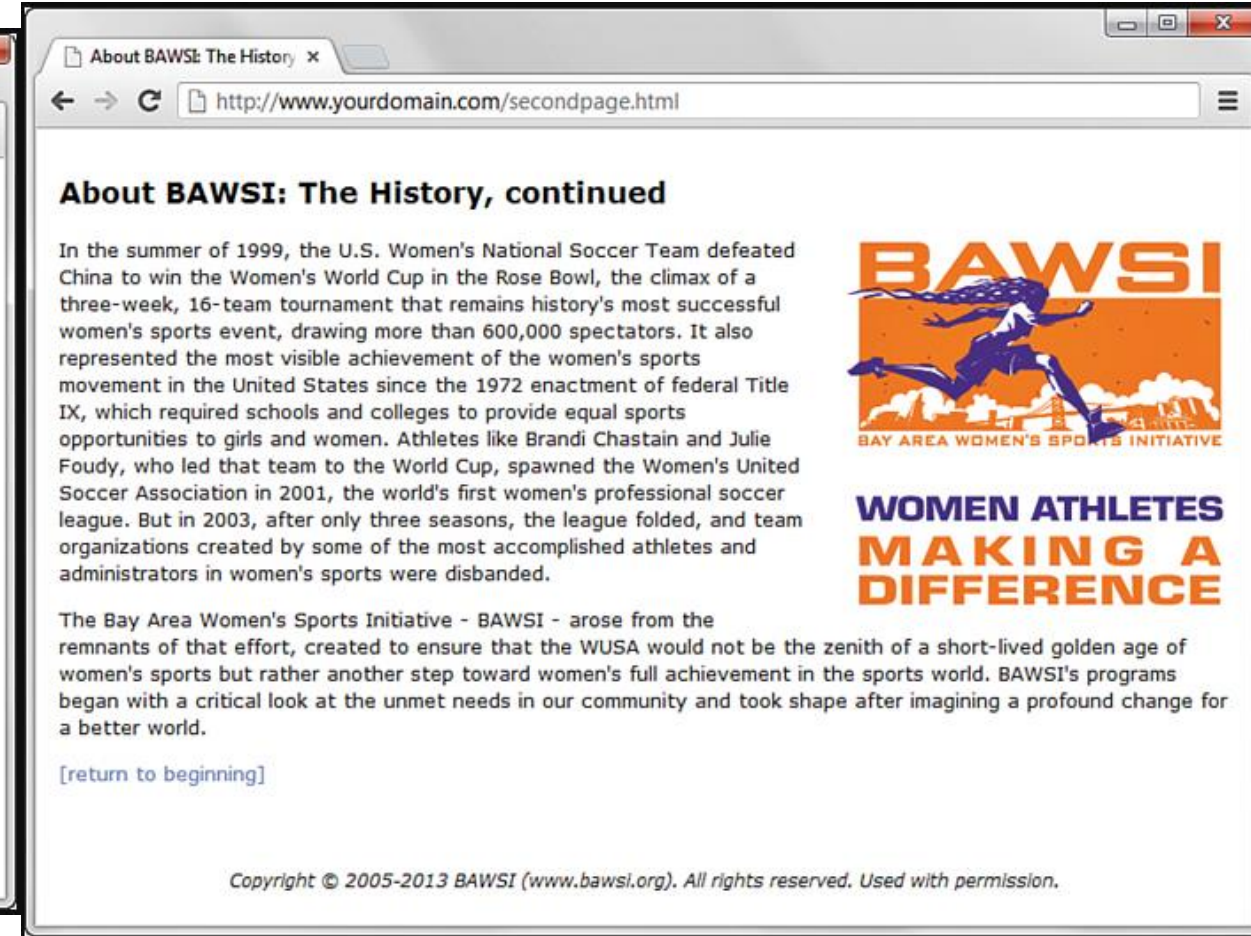
- follows a hierarchy of style rules

```html
<div style="color:blue">
    <h2>Why We Do It</h2>
    <p style="color:green">
        We are paind an awful lot of money by people who like cheese. <br>
        <span style="color:pink">So we make more.</span>
    </p>
    <p>
        We are proud of our work.
    </p>
</div>
```

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CSS
Example: BAWSI

About page

History page

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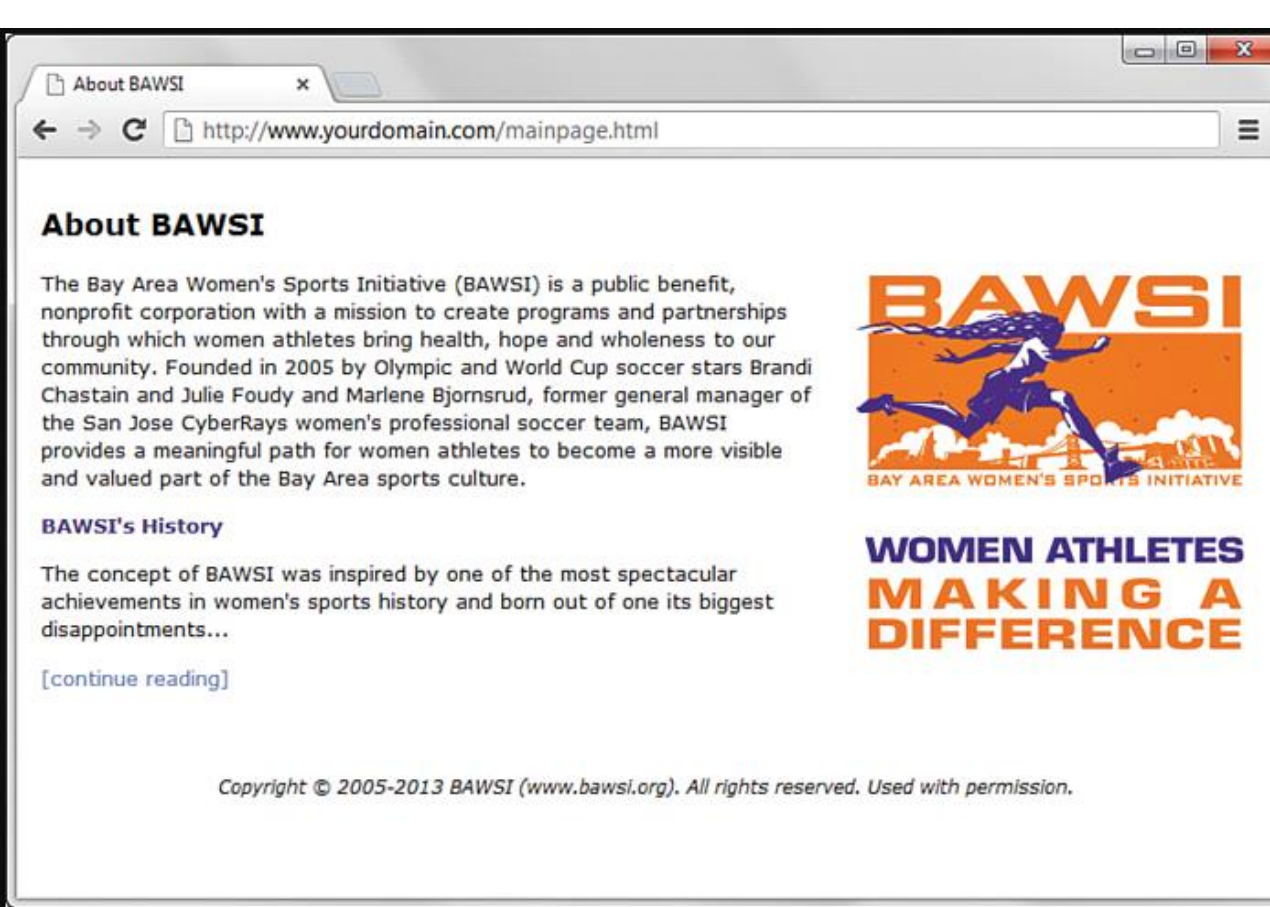
CSS

Class Exercise: create an HTML document and apply CSS for the following outcome.

header->
color: #593d87

div ->
h2_color: purple
p_color: red

div_color: blue
p_color: green
span_color: pink

footer->
font-size:9pt
line-height:12pt
text-align: right

CSS

Specifications:

- Style rules for the footer and the initial section should be coming form an external file.
- Style rules for the middle section should be defined internally.
- Style rules for the final section should be defined inline.

Source code:

ExCSS.css

```css
footer{
    font-size: 9pt;
    line-height: 12pt;
    text-align: right;
}

header{
    color: #593d87;
}
```

HTML&CSS.html

```html
<!DOCTYPE html>
<html>
    <head>
        <title> Camembert Incorporated </title>
        <link rel="stylesheet" type="text/css" href="ExCSS.css"/>
        <style type="text/css">
            p.subheader{
                color: red;
            }
            h2.subheader{
                color: purple;
            }
        </style>
    </head>
    <body>
        <header>
            <h1>Camembert Incorporated</h1>
            <p>
                "Many's the long night I dreamed of cheese -- toasted, mostly."
                -- Robert Louis Stevenson
            </p>
        </header>
        <h2 class="subheader">What We Do</h2>
        <p class="subheader">
            We make cheese. Lots of cheese; more than eight tons of cheese
            a year.
        </p>
        <div style="color:blue">
            <h2>Why We Do It</h2>
            <p style="color:green">
                We are paind an awful lot of money by people who like cheese. <br>
                <span style="color:pink">So we make more.</span>
            </p>
            <p>
                We are proud of our work.
            </p>
        </div>
        <footer>
        Copyright 2021 Camembert.
        </footer>
    </body>
</html>
```

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Thank You!

Think Green, Grow Green, Live Green

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