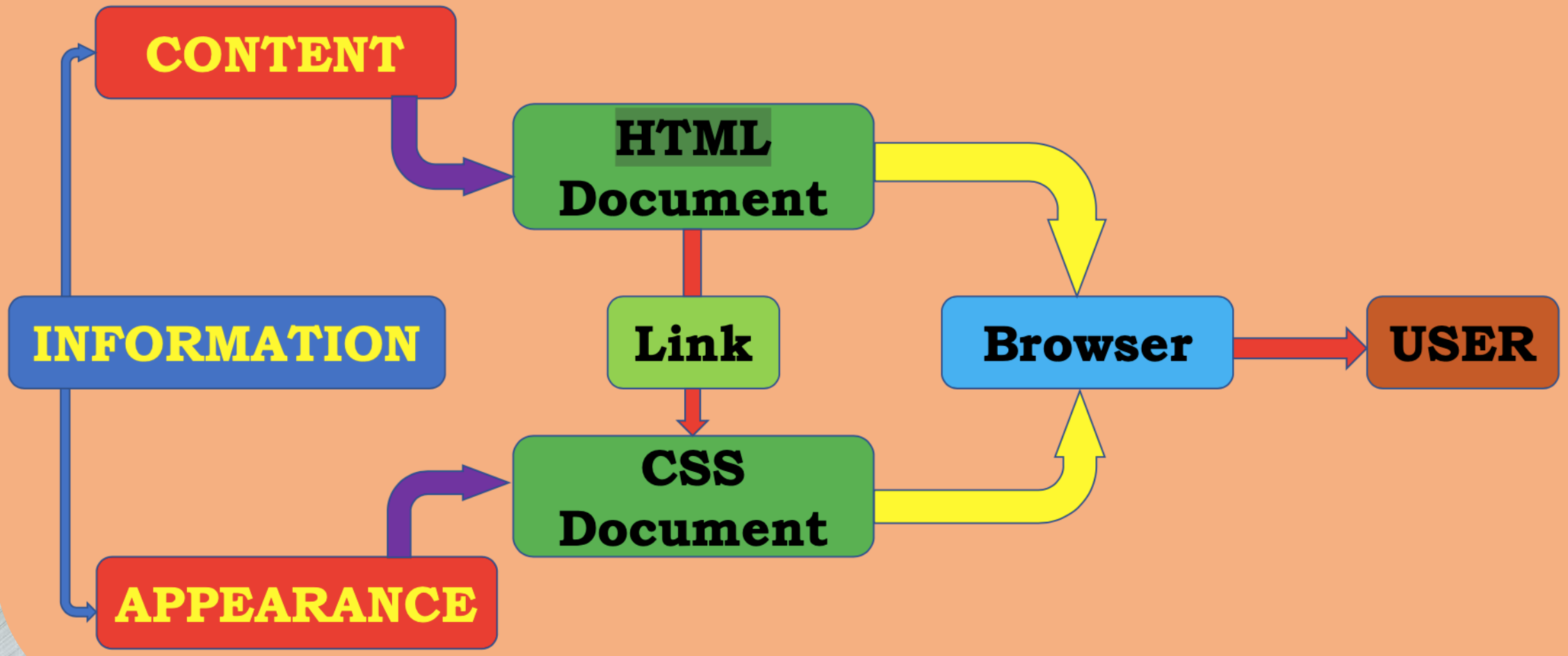
Grade 9

1st Quarter

Lesson 3

Using style sheets to separate content from appearance



Case sensitivity:

HTML browsers that can handle style sheets are not case sensitive. It is a good idea to always use the same capitalization for the styles as the user use in the page itself.

Punctuation

All the punctuation in CSS is important. All style declarations must have a colon between the name of the style property and the value or values assigned. All style declarations must end in a semi-colon.

White Space

White space must exist where indicated. The user can, however, add extra white-space to make the code more readable. The following 2 statements would be equivalent.

h1{color:green;font-size:2.0em;font-weight:bold;}

```
h1{color:green;
font-size:2.0em;
font-weight:bold; }
```

White Space

If a property value has spaces in it, it is strongly recommended that the user put the value in quotes. It is almost never required that the user do so, however, so if the user forget the quotes, no harm should be done. Make sure the quotes are around the value, and not the entire list of values.
Example: p{font-family:”Times New Roman”,serif;}

Style Properties

Properties are collected into six groups:

- Fonts
- Colors and backgrounds
- Text
- Boxes and layout
- Lists
- Tag classification

Property Values

Each property has a value. Different properties can take different values. There are five different possible categories of values.

1. Keywords

Keywords express an attribute or dimension with a reserved word.

Ex.
xx-large sans-serif underline

2. Length Values

Length values explicitly states the size of a property. They must include a two character abbreviation of the units of measure as a suffix to the number. There should be no space between the number and the suffix.

The number may be preceded by a plus or minus sign.

Ex:
1in – one inch
2em – 2 em units.
An em-unit is a unit of measure equal to the width of the letter “m”
-30px – minus 30 pixels
2.5cm – 2.5 centimeters

3. Percentage Values

Percentage values describe the proportion of something.

They must be suffixed with a percent sign.

Ex:

120%

4. URL

The user can also specify a valid URL. The format is the keyword **url** followed immediately by the URL itself in the parenthesis.

Ex. url(http://www/dost.gov.ph/)

If the style sheet is an external style sheet, URLs are relative to the style sheet, not the document using the style sheet.

5. Color

Color values are used to specify colors, they can be: a color name:

Ex:

red

a hexadecimal RGB triple: #ffffcc a decimal RGB triple:

rgb(0%, 100%, 50%)

rgb(255, 100, 255)

RGB values range from 0-255

Display

- CSS display property allows you to control how an element is displayed.
- Block element is laid out vertically like an new paragraph begins with a new line after the end of another paragraph.
- Inline element is laid out horizontally and will only proceed to the next line when the end of the line is reached

Kinds of elements in CSS

Kind	Description	Example
Block level elements	Laid out vertically	<p> block <p> block
Inline level elements	Laid out horizontally	element <b> element

Multiple Style Sheets

Some properties can be defined for the same selector (element) in different style sheets, the value from the LAST read style will be used.

Three Style Sheets

1. External / Linked Style Sheets
2. Embedded /Internal / Header Style Sheets
3. Inline Style Sheets

Example 1: HTML code

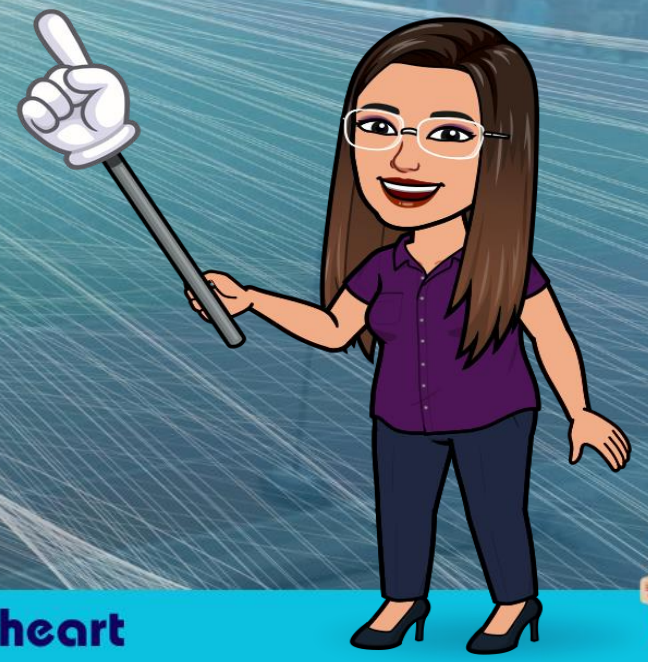
```
<!DOCTYPE html>
<html>
<head>
<title>Multiple Style Sheets</title>
<link rel="stylesheet" href="mystyle.css">
<style>
h1{color:orange;}
</style>
</head>
<body>
<h1>This is a heading.</h1>
<p>The style of this document is a
combination of an external stylesheet and
internal style.</p>
</body>
</html>
```

External

Internal

CSS code "mystyle.css"

```
h1{color:navy;}
```



Example 2: HTML code

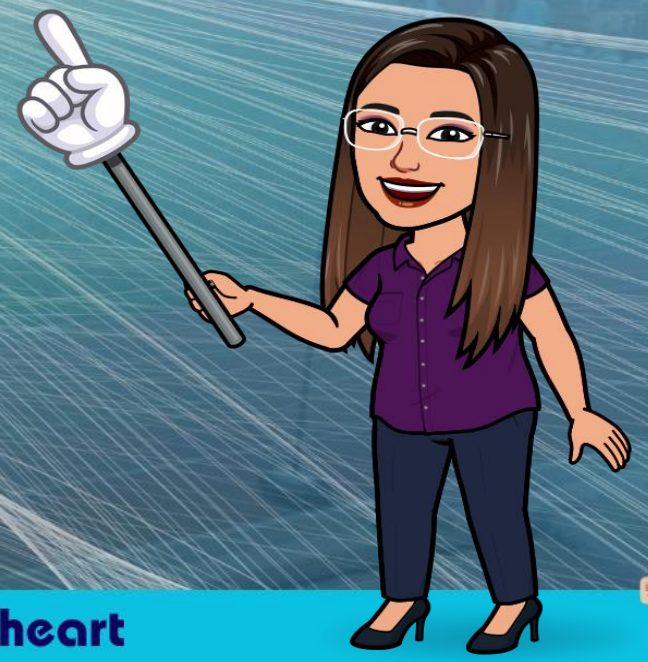
```
<!DOCTYPE html>
<html>
<head>
<title>Multiple Style Sheets</title>
<style>
h1{color:orange;}
</style>
<link rel="stylesheet" href="mystyle.css">
</head>
<body>
<h1>This is a heading.</h1>
<p>The style of this document is a
combination of an external stylesheet and
internal style.</p>
</body>
</html>
```

Internal

External

CSS code "mystyle.css"

```
h1{color:navy;}
```



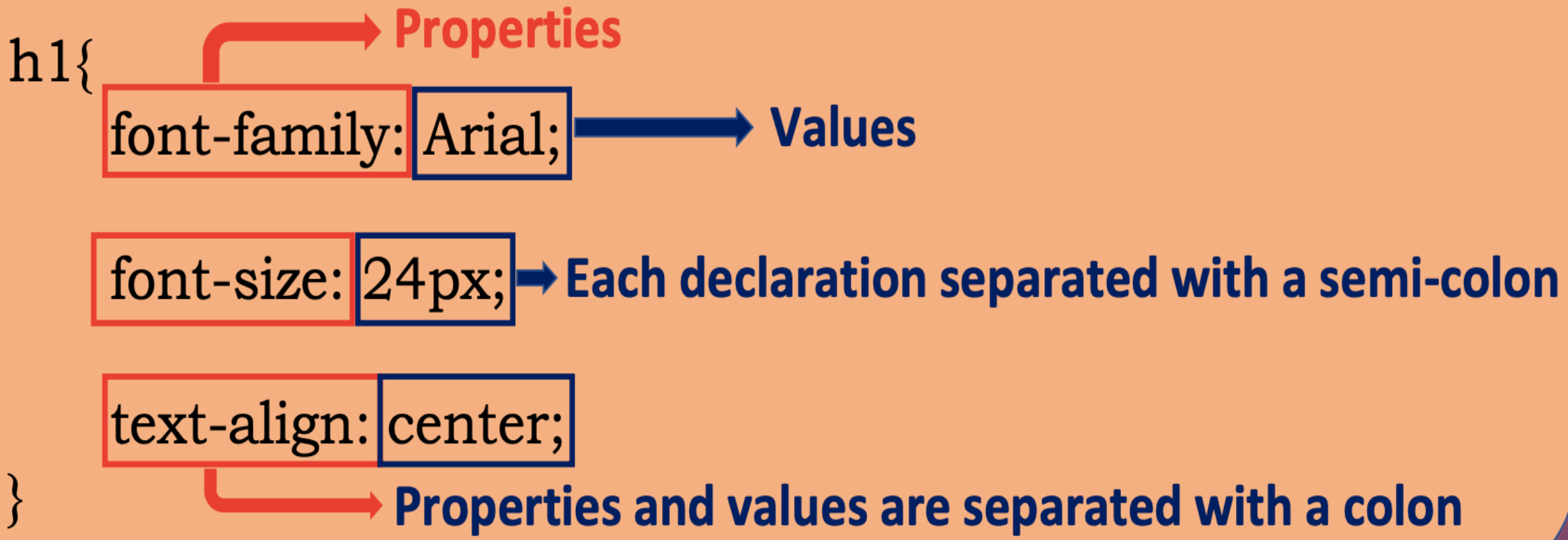
Cascading Order

What style will be used when there is more than one style specified for an HTML element?
All the styles in a page will "cascade" into a new "virtual" style sheet by the following rules, where number one has the highest priority:

1. Inline style (inside an HTML element)
2. External and internal style sheets (in the head section)
3. Browser default

So, an inline style has the highest priority, and will override external and internal styles and browser defaults.

Anatomy of a statement:



Property – is the style attribute you want to modify

Value – is the weight of the attribute you want to apply to the element ***Property***

CSS Syntax

Selector	Declaration
h1	{color:blue;font-size:12px;}

Selector

- states which element in the HTML you want to style/part of the statement which identifies page elements
- the selector is normally the HTML element the user wants to style

- if the selector is in the body tag. This means that the statement will affect the <body> element of any page linked to the style sheet
- the selector points to the HTML element you want to style.

CSS Selectors

CSS selectors are used to "find" (or select) the HTML elements you want to style.

We can divide CSS selectors into types:

- Element selector
- ID selector
- Class selector
- Universal selector
- Group selector
- Attribute selector

Element Selector

The element selector selects HTML elements (p, div, h1, etc) and applies CSS to them.

```
<!DOCTYPE html>
<html>
<head>
<title>CSS selectors</title>
<link rel="stylesheet" href="style.css">
</head>
<body>
<h1>Heading</h1>
<p>This is how you use element selectors</p>
</body>
</html>
```

HTML code

CSS code

```
h1 {color:red;}
p {color:orange;}
```

ID Selector

- The id selector selects the HTML element with a unique identifier (id) and adds CSS to it.
- The id selector is specified using the hash (#) character, followed by the id of the element.

HTML code

```
<!DOCTYPE html>
<html>
<head>
<title>CSS selectors</title>
<link rel="stylesheet" href="style.css">
</head>
<body>
<p>First paragraph</p>
<p id="second-paragraph">Second paragraph</p>
<p>Third paragraph</p>
</body>
</html>
```

CSS code

```
#second-paragraph
{color:red;}
```

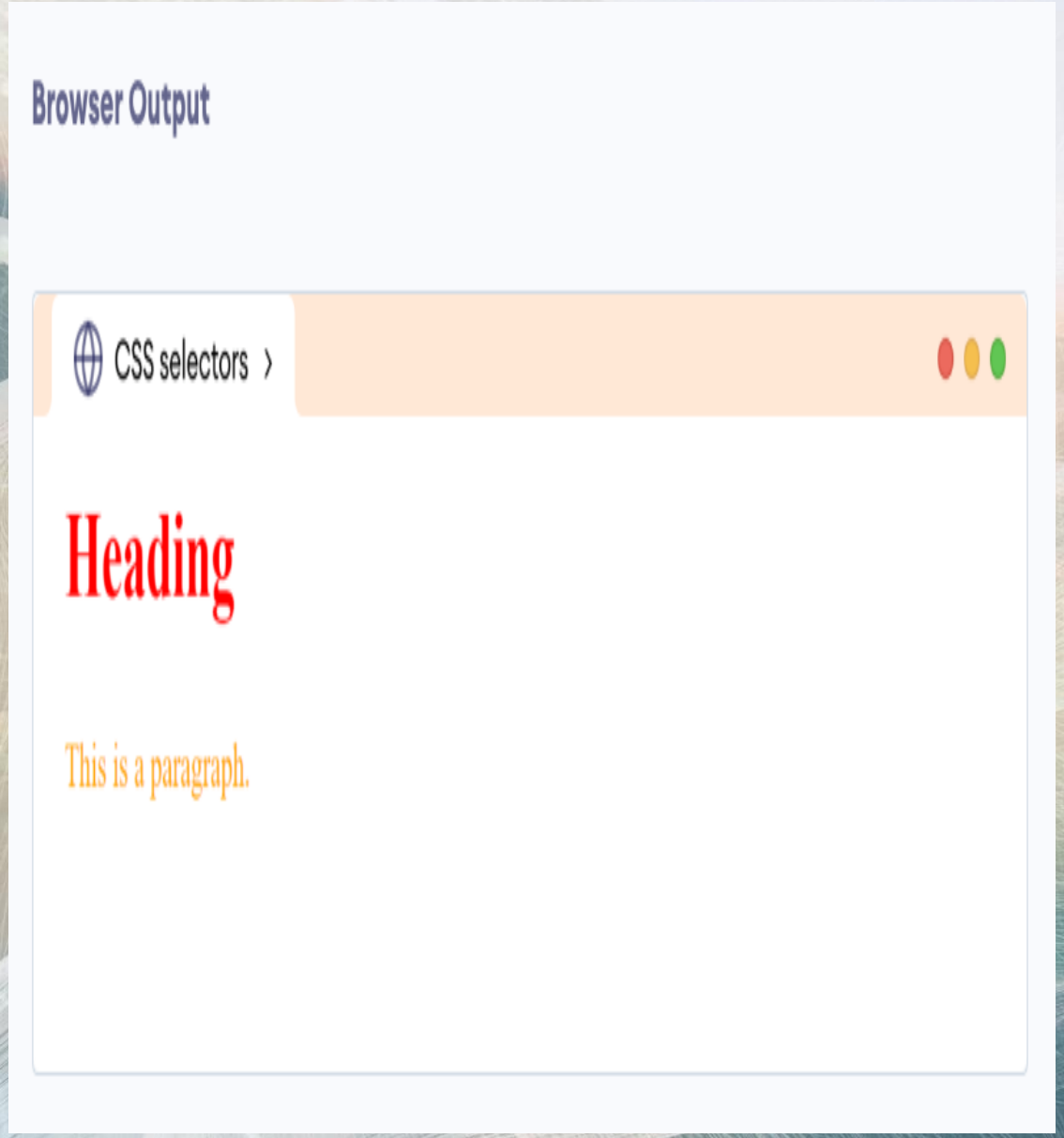
Browser Output

In the given example:

- # - id selector
- second-paragraph - the name of the id

The id selector #second-paragraph selects the second paragraph and styles the text color to red.

Note: The id selector is unique and selects one unique element.



In the given example, the element selector

- h1 selects all h1 elements and styles their color to red
- p selects all p elements and styles their color to orange

Note: The element selector is also referred to as a tag selector because it selects HTML elements based on their tag names.

Class Selector

The class selector selects the HTML element using the class attribute and applies CSS to it.
The class selector is specified using the period (.) character, followed by the class name.

```
<!DOCTYPE html>
<html>
<head>
<title>CSS selectors</title>
<link rel="stylesheet" href="style.css">
</head>
<body>
<h2>Section First</h2>
<p class="first-paragraph">This is the first
paragraph</p>
<p>This is the second paragraph</p>
<h2>Section Second</h2>
<p class="first-paragraph">This is the first
paragraph.</p>
<p>This is the second paragraph</p>
</body>
</html>
```

HTML code

CSS code

```
.first-paragraph
{background-
color:orange;}
```

Browser Output

In the example:

- . - class selector
- first-paragraph-name of the class

The class selector *.first-paragraph* selects all the paragraphs having the *first-paragraph* class name and styles *background-color* to *orange*.

Universal Selector

The universal selector selects every single HTML element on the page. It is written using the asterisk (*) character.

```
<!DOCTYPE html>
<html>
<head>
<title>CSS selectors</title>
<link rel="stylesheet" href="style.css">
</head>
<body>
<h1>Heading</h1>
<p>First Paragraph</p>
<p>Second Paragraph</p>
</body>
</html>
```

HTML code

CSS code

```
* {color:red;}
```

Browser Output

In the given example, the universal selector * selects all the HTML elements and applies the *red* color.

Note: The universal selector is also referred to as the wildcard selector.

#group-selector Group Selector

The group selector allows you to select multiple elements and apply the same style to all of them.

```
<!DOCTYPE html>
<html>
<head>
<title>CSS selectors</title>
<link rel="stylesheet" href="style.css">
</head>
<body>
<h1>Heading</h1>
<p>This is a paragraph.</p>
</body>
</html>
```

HTML code

CSS code

```
h1,p
{color:blue;}
```

Browser Output

Here, the code applies CSS styling to all *<h1>* and *<p>* elements. Notice that we have used , to separate the HTML elements.

Attribute Selector

The attribute selector selects elements based on specific attribute values.

The syntax for the attribute selector is:

Element[attribute]

```
<!DOCTYPE html>
<html>
<head>
<title>CSS selectors</title>
<link rel="stylesheet" href="style.css">
</head>
<body>
<p class="first">This is the first paragraph.</p>
<p>This paragraph doesn't have a class
attribute.</p>
<p class="third">This is the third paragraph.</p>
<p class="fourth">This is a fourth paragraph.</p>
</body>
</html>
```

HTML code

CSS code

```
p[class]
{background-
color:orange;}
p[class="third"]
{color:blue;}
```

Browser Output

In the given example, the attribute selector

- *p[class]* selects all *p* elements having the *class* attribute and styles their background color to *red*.
- *p[class="third"]* selects all *p* elements with the *.third* class name and styles their color to *blue*.

Note: This selector only selects an element if a specified given attribute exists.

CSS Syntax

Declaration

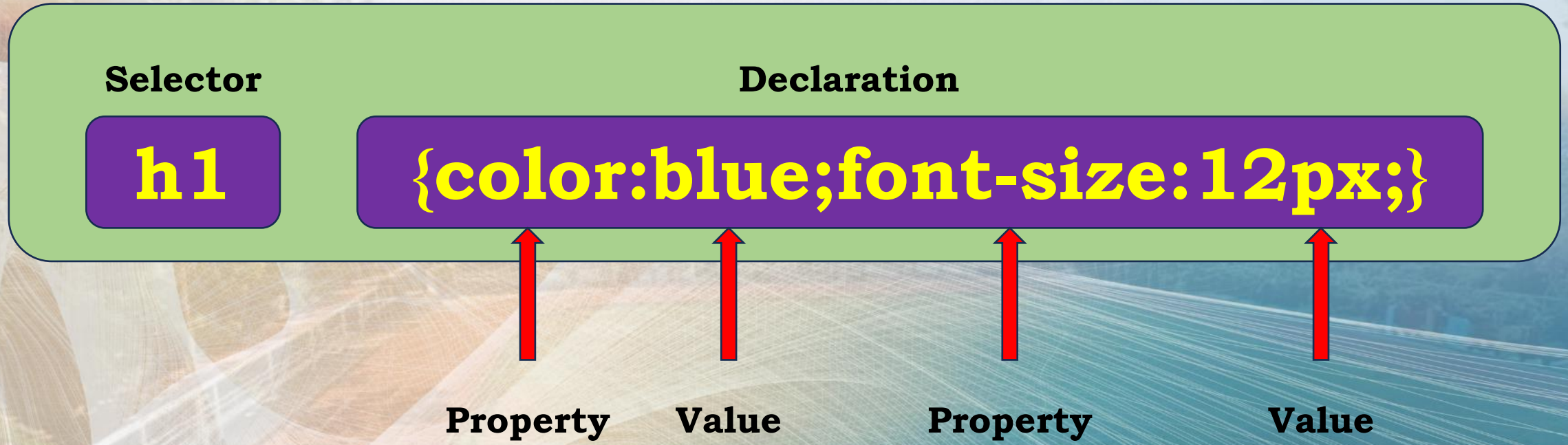
h1	{color:blue;font-size:12px;}

Declarations

- describe how these elements (selector) should be displayed and enclosed by curly braces
- part of the statement which tells a browser how selected elements should be drawn
- describe how these elements (selector) should be displayed and enclosed by curly braces
- part of the statement which tells a browser how selected elements should be drawn

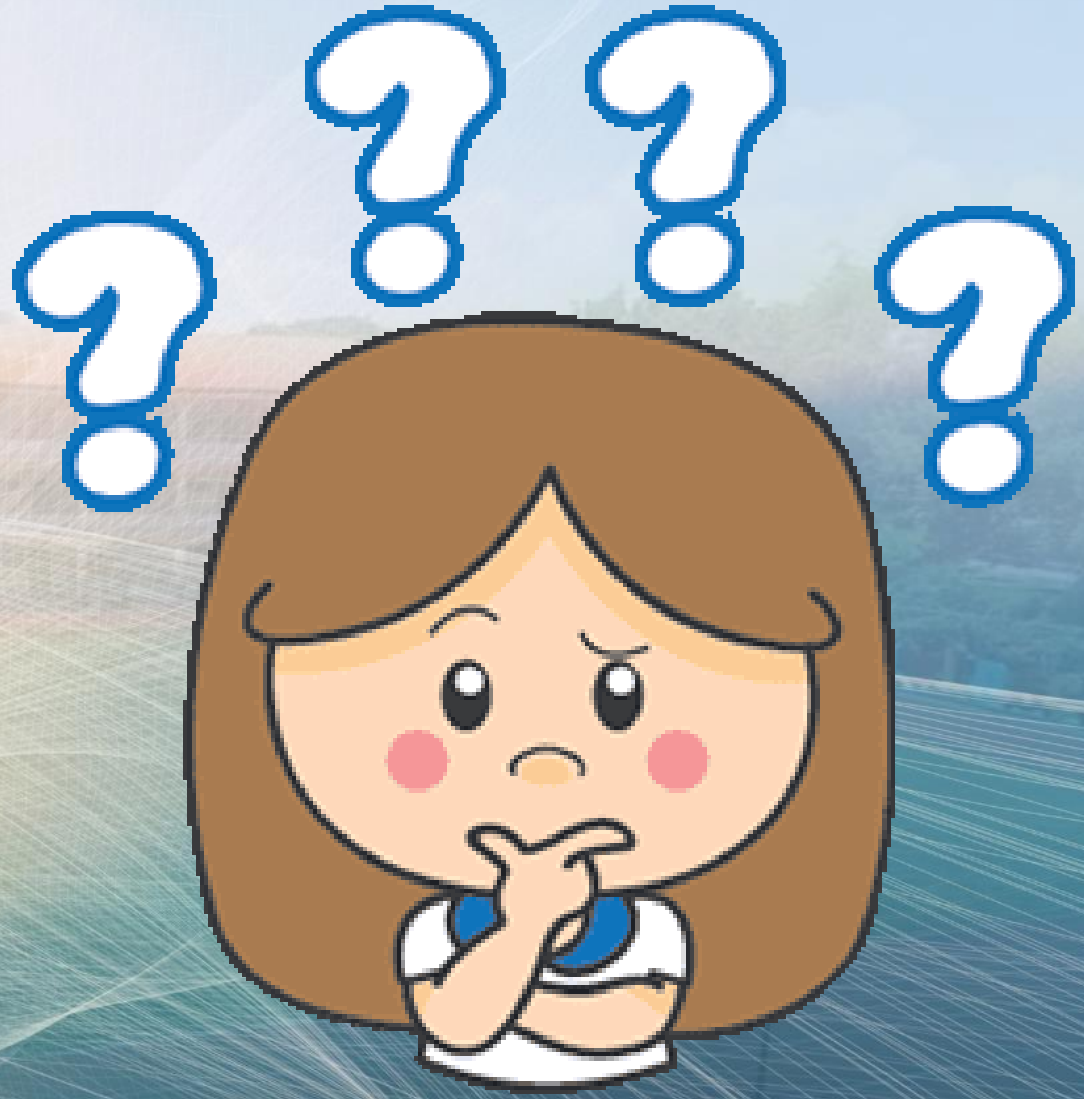
- The declaration block contains one or more declarations separated by semicolons.
- Each declaration includes a CSS property name and a value, separated by a colon.
- Multiple CSS declarations are separated with semicolons, and declaration blocks are surrounded by curly braces

CSS Syntax



Each declaration includes a property and value separated using a colon. You can add more than one declaration. Each declaration ends with a semicolon.

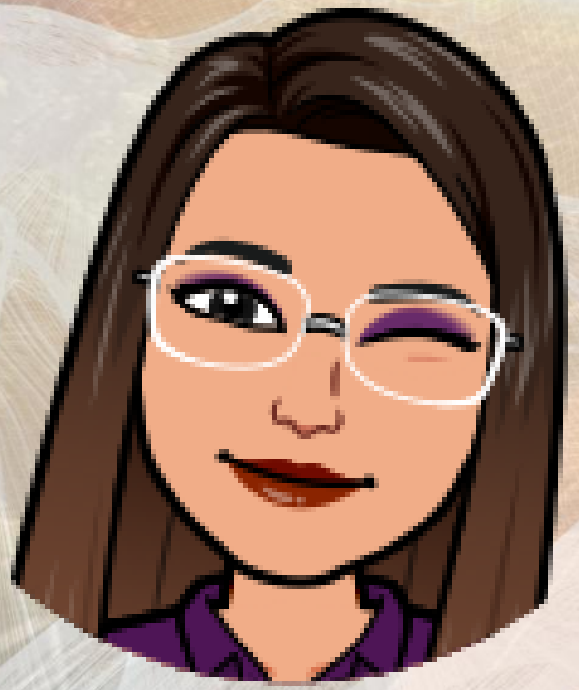
Any Questions?



A bright mind is nothing without a humble heart

How can you apply the lesson in your activities as a student?

(Practical/actual application)



Summary

Assignment:

1. Recall the things you learned of coding (HTML).
2. We will have activities involving HTML and link it to CSS.

A bright mind is nothing without a humble heart