3. Cascading Style Sheets (CSS)
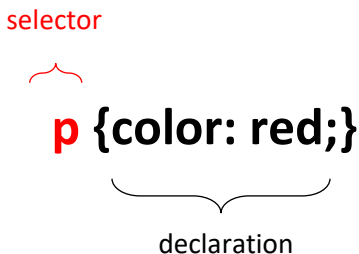
3.1. Introduction to CSS

3.1.1 CSS Basics

CSS (Cascading Style Sheets) allows you to create rules that specify how the content of an element should appear. For example, you can specify that the background of the page is cream, all paragraphs should appear in gray using the Arial typeface, or that all level one headings should be in a blue, italic, Times typeface.

CSS works by associating rules with HTML elements. These rules govern how the content of specified elements should be displayed. A CSS rule contains two parts: a **selector** and a **declaration.**

Selectors indicate which element the rule applies to. The same rule can apply to more than one element if you separate the element names with commas.

Declarations indicate how the elements referred to in the selector should be styled. Declarations are placed between brackets.

Declarations are split into two parts (a property and a value) are separated by a colon.

selector

p {color: red;}

declaration

Within declaration

The declaration should specific the property and value of element of the selector.

Properties indicate the aspects of the element you want to change. For example, color, font, width, height and border. Each declaration ends with a semicolon. You can always refer to w3schools.com to check the list of all properties that is available in CSS.

Values specify the settings you want to use for the chosen properties. For example, if you want to specify a color property then the value is the color you want the text in these elements to be.

p { color: red; }

property   value

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Where should I place my CSS instructions?

Externally: Your CSS code can be writing in a text editor and save it with file extension .css
Then the .css can be found using the link element.

Internally: You can also include CSS rules within an HTML page by placing them inside a **\<style\>** element, which usually sits inside the \<head\> element of the page.

Using external CSS

The **\<link\>** element can be used in an HTML document to tell the browser where to find the CSS file used to style the page. It is an empty element (meaning it does not need a closing tag), and it lives inside the \<head\> element. It should use three attributes:
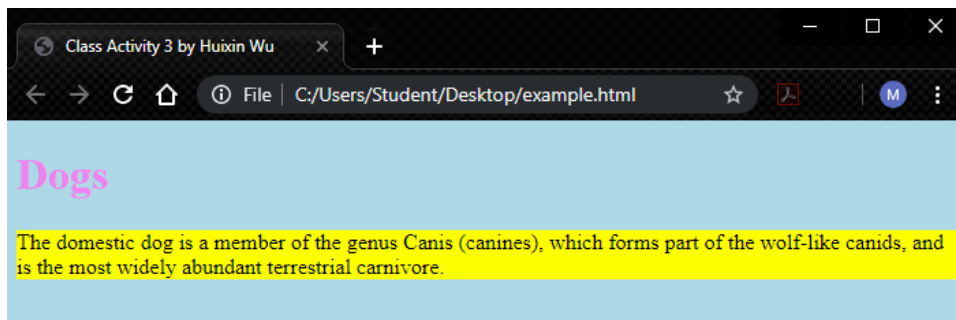
href: This specifies the path to the CSS file (which is often placed in a folder called css or styles).

type: This attribute specifies the type of document being linked to. The value should be text/css.

rel: This specifies the relationship between the HTML page and the file it is linked to. The value should be stylesheet when linking to a CSS file.

An HTML page can use more than one CSS style sheet. To do this it could have a \<link\> element for every CSS file it uses. For example, some authors use one CSS file to control the presentation (such as fonts and colors) and a second to control the layout.

Exercise) Create a simple app with **\<h1\>** and **\<p\>** element. Save an external .css file as *style.css*

HTML

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Class Activity 3 by Huixin Wu</title>
    <link href="style.css" type="text/css" rel="stylesheet" />
  </head>
<body> <h1>Dogs</h1>
<p> The domestic dog is a member of the genus Canis (canines), which forms part of
the wolf-like canids, and is the most widely abundant terrestrial carnivore.</p>
</body>
</html>
```

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```
body {                                              style.css
background-color: lightblue;
}
h1 {color:violet;}
p {background-color: yellow;}
```
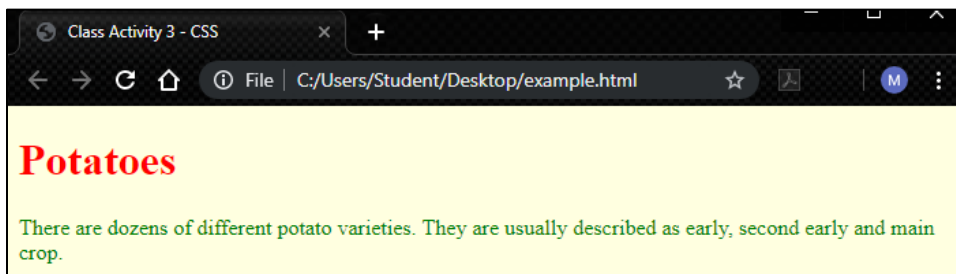
Using Internal CSS

You can also include CSS rules within an HTML page by placing them inside a **`<style>`** element, which usually sits inside the <head> element of the page.

The **`<style>`** element should use the type attribute to indicate that the styles are specified in CSS. The value should be text/ css.

When building a site with more than one page, you should use an external CSS style sheet. This:

- o   Allows all pages to use the same style rules (rather than repeating them in each page).

- o   Keeps the content separate from how the page looks.

- o   Means you can change the styles used across all pages by altering just one file (rather than each individual page).

Exercise) Create the following text with font color.


```
                                                              style.css
<!DOCTYPE html>
<html lang="en" dir="ltr">
   <head>
     <meta charset="utf-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>Class Activity 3 - CSS</title>
     <style type="text/css">
         body { background-color: lightyellow;}
         h1 { color: red;}
         p{ color: green;}
     </style>
   </head>
   <body> <h1>Potatoes</h1><p> There are dozens of different potato
   varieties. They are usually described as
   early, second early and main crop.</p>
   </body>
</html>
```