

If you prefer to work offline, you can find the PDF version here: <https://github.com/JBRC-ph/EmpowermentTechnologies/blob/master/homework3.pdf>

After finishing this homework, you should know:

- how to add an external stylesheet to an HTML file
- Text formatting with CSS
  - color, font-family, font-size, font-style, font-weight, vertical-align
- how to style a tag (e.g. apply a style to body, h1, p)
- how to style a specific group (class) of tags (e.g. tr.highlight)
- how to style a specific tag identified by ID

## ***Write down your answers on a bond paper and submit on Tuesday, August 8***

This homework will take approximately 30-60 minutes. You can test your code on your computer using Visual Studio Code and Edge/Chrome/Firefox. You get +30% credit if you upload your code to Github.com and configure GitHub pages on your project.

## **Preliminaries**

Extra Credit: Create a new GitHub project named "homework3". Create an HTML file named "index.html". Configure the project to use GitHub Pages.

**HINT:** To setup a new Github project and configure it to use Github Pages, follow <https://github.com/JBRC-ph/EmpowermentTechnologies/blob/master/github-pages-howto.md>

Put the following HTML code into index.html. If you recall this is similar to exercises 1, 2 and 5 of [Homework 2](#)

```
<html>
  <body>
    <h1>Title</h1>
    <!-- First paragraph -->
    <p>
      Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aliquam porta, turpi
s vitae mollis accumsan, diam lorem imperdiet tellus, at porttitor ipsum nibh eu elit
```

. Donec tempor metus nunc, ac rhoncus enim convallis quis. Morbi nec nunc ultrices, p  
orta diam vel, consequat felis. Morbi sagittis consequat vulputate. Phasellus faucibu  
s iaculis porttitor. Sed maximus mattis sapien ut fringilla. Mauris venenatis efficit  
ur dui nec scelerisque. Aenean id elit et dui aliquet rhoncus. Nam elementum, lectus  
non varius viverra, tortor nulla tristique nulla, non tristique massa odio efficitur  
mauris. Ut sollicitudin erat nec interdum maximus. Praesent sodales arcu in massa var  
ius, vehicula molestie eros tempus. Mauris dignissim molestie felis id gravida.

</p>

<!-- Second paragraph -->

<p>

Morbi ac dui ut lacus laoreet malesuada. Ut tempor lorem ac eros laoreet, sit  
amet pellentesque dui vehicula. Nunc lacinia ullamcorper nulla nec congue. Sed vel m  
assa at dolor tempus elementum eu et felis. Duis eget condimentum mi. Morbi vehicula  
erat ac augue convallis rutrum. Donec tempus volutpat pellentesque. Pellentesque bibe  
ndum dapibus ex ut convallis. Nunc efficitur orci vel augue aliquam feugiat. Aenean p  
orttitor leo justo, ac accumsan lorem sollicitudin eu. Sed vel ante sed dolor congue  
placemat. Aliquam nec convallis nibh. Nam a lorem vitae lacus vulputate pretium a nec  
lorem.

</p>

<!-- Third paragraph -->

<p>

Pellentesque hendrerit vehicula sodales. Aliquam a faucibus mi. Curabitur sed  
elit eget elit gravida viverra. Sed pulvinar a massa porta lobortis. Sed varius male  
suada ante et lacinia. Phasellus et congue lorem. Nam viverra, elit vitae efficitur b  
landit, ex ex finibus magna, ac aliquam ante elit non sem. Sed in augue scelerisque,  
ornare magna non, laoreet dolor. Mauris fermentum eros ut eros luctus lobortis. In ve  
l diam pulvinar, aliquam lectus at, pellentesque erat. Sed et urna in erat dapibus ru  
trum. Donec vitae nisl elementum, pulvinar massa ac, tincidunt ante. Fusce sit amet s  
em nibh.

</p>

<!-- Form -->

<p>

<form>

<label>First Name</label>

<input type="text" name="first\_name" />

<br/>

<label>Last Name</label>

<input type="text" name="last\_name" />

<br/>

<input type="submit" value="Submit" />

</form>

</p>

```
<!-- Table -->
<p>
  <table border="1">
    <tr>
      <th>
        Superhero
      </th>
      <th>
        Civil War
      </th>
      <th>
        Infinity War
      </th>
    </tr>
    <tr>
      <td>
        Captain America
      </td>
      <td>
        Yes
      </td>
      <td>
        Yes
      </td>
    </tr>
    <tr>
      <td>
        Iron Man
      </td>
      <td>
        Yes
      </td>
      <td>
        Yes
      </td>
    </tr>
    <tr>
      <td>
        Hulk
      </td>
      <td>
        No
      </td>
      <td>
```

```
        Yes
      </td>
    </tr>
  </table>
</p>
</body>
</html>
```

Save the file and open it on your browser.

## Getting Started with Styling HTML

Add an external stylesheet to the HTML above:

```
<head>
  <link rel="stylesheet" type="text/css" href="./style.css" />
</head>
```

*Question 1: Where should you put the code - before or after the tag?*

After adding the external stylesheet, reload index.html on your browser. Do NOT yet create style.css.

*Question 2: Were there any changes in the layout or look of index.html?*

Change the tag in the HTML to:

```
<body style="background: #A0A0A0;">
```

then reload index.html in the browser. Congratulations! You just added an inline stylesheet.

Reload the page in the browser. What changed?

Remove the style attribute from the body tag:

```
<body>
```

Put the style in style.css:

```
body {
  background: #A0A0A0;
}
```

You've just styled index.html with an external stylesheet.

*Question 3: There are three ways to incorporate CSS into HTML. In this exercise, you did two: (1) use inline styling, and (2) use an external stylesheet. What is the third way?*

*Question 4: Describe the advantages and disadvantages of using inline styling.*

*Question 5: Describe the advantages and disadvantages of using an external stylesheet.*

## HTML Colors

Change the background color to #B0C4DE.

*Question 6: What is the HTML color name for #B0C4DE?*

*Question 7: In #B0C4DE, which two characters stand for the red component of the RGB color? Which two characters stand for green? For blue?*

*Question 8: Try experimenting with the color value. As the background color values for red, green and blue approach FF, what happens to the color - does it become lighter or darker? As the color values approach 00, does the color become lighter or darker?*

Modify style.css to change the background color back to white.

## CSS Class Selectors

In the previous sections you learned how to add a style to all instances of an HTML tag by adding a `background` style to the `body` tag. There is only one `body` tag in the HTML document, but the same principle applies to other HTML tags like `p`.

Add the following to `style.css` to change the text font in index.html:

```
p {  
  font-family: sans-serif;  
}
```

Save `style.css` and reload `index.html` in the browser.

*Question 9: What changed in the page?*

Change `index.html` and `style.css` so that only the three Lorem Ipsum paragraphs get the sans-serif

font styling. These are the

tags preceded by the HTML comments "First paragraph", "Second paragraph", and "Third paragraph".

*Question 10: Write down the new HTML code for the first three*

*tags. You do not need to write down the text between*

*and the closing*

*tag.*

*Question 11: Write down the new CSS code for* `style.css`

HINT: Read about CSS Class Selectors: [https://www.w3schools.com/cssref/sel\\_class.asp](https://www.w3schools.com/cssref/sel_class.asp)

Following the same principles, modify your code to highlight the row for Captain America with a gray background.

*Question 12: Write down the new HTML code for the Captain America* `<tr>` *block:*

```
<tr>
  <td>
    Captain America
  </td>
  <td>
    Yes
  </td>
  <td>
    Yes
  </td>
</tr>
```

*Question 13: Write down the new CSS code for* `style.css` .

## CSS ID Selectors

If you want to style one specific HTML tag, put an ID attribute on the tag and apply a CSS selector for that ID.

HINT: Read about CSS ID Selectors: [https://www.w3schools.com/cssref/sel\\_id.asp](https://www.w3schools.com/cssref/sel_id.asp)

*Question 14: Write down the HTML and CSS changes needed to change the color of the second paragraph to*

*green.*

*Question 15 (Extra Credit, +20%): If you haven't yet done so, create a new GitHub project named homework3, configure GitHub Pages on the project, and upload your HTML and CSS into the project. You get the full +20% if <http://yourusername.github.io/homework3> renders correctly on a browser.*

You're done. Congratulations!