

HTML, CSS

The goal of this exercise is to create an HTML document and defining its appearance using CSS. Additionally, students will learn the meaning of the `<meta>` tag and verify how CSS works across different browsers. To complete this exercise, you'll need a text editor (I highly recommend VS Code) and a web browser.

1. Create a new file *book.html* according to the following template and fill it with content describing your favorite book. Make sure that the description of the book spans across at least 3 paragraphs.

```
<html>
<head>
  <title>book title and author</title>
  <meta name="author" content="John Doe">
  <meta name="description" content="book description">
</head>
<body>
  <h1>book title</h1>
  <h2>book author</h2>
  <table>
    <tr>
      <td>
        
      </td>
      <td>
        <ul>
          <li><b>publisher</b>: <u>the publisher</u>
          <li><b>number of pages</b>: number of pages
          <li><b>cover</b>: cover type
          <li><b>price</b>: price
        </ul>
      </td>
    </tr>
    <tr>
      <td colspan="2">description
        <p>description first paragraph</p>
        <p>description second paragraph </p>
        <p>description third paragraph </p>
        <p>description fourth paragraph </p>
      </td>
    </tr>
  </table>
</body>
</html>
```

2. Insert some Polish symbols into the text and check if the browser correctly displays then and guesses the encoding. Add a `<meta>` tag in the head section of the page informing about the encoding and set it to *utf-8*, like below.

```
<meta charset="utf-8">
```

Refresh the document in the browser. Change the actual encoding of the file to *iso88592* (without changing the meta tag). Refresh the page. Make sure you understand what's going on and change it back to normal.

3. In the head section of the document, add additional meta tags informing the search engines about the contents of the page.

```
<meta name="description" content="internet applications, exercise, html, css">
```

4. Inform the browser about the html version (5) by adding the document type declaration.
5. Validate your document using the online validator available here: <http://validator.w3.org/>. If the document isn't valid – fix it.
6. In the head section of the document, add the 3 following CSS rules and check the effect in the browser.

```
<style>
*      { font-family: Tahoma }
body   { margin: 5em 10em 5em 10em }
p      { text-align: justify }
</style>
```

7. Now, we will add an external stylesheet. Paste the following code in the head section of your page.

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

8. Create a new file *style.css* and place it in the same directory as your document *book.html*. Paste the following line inside and inspect its effect on the document.

```
li { list-style-type: square }
```

9. Using some CSS selector reference (e.g., https://www.w3schools.com/cssref/css_selectors.asp), complete the following exercises.
10. The price of the book should be clearly highlighted. Surround the prices with a `` element with id `price` and compose a CSS rule which will make it red (`color`) and bold (`font-weight`).
11. The first paragraph should be displayed with an italic font (`font-style`). Use a class attribute to achieve this.
12. The border of the image of the image should be blue (`border-color`) and turn red on hover. Use an ancestor selector looking for `img` inside `td`.
13. Set `letter-spacing: 5px` on all `h2` elements appearing directly after `h1`.
14. Set `font-size: small` in all paragraphs directly nested in table cells with `colspan` set to 2.
15. Set a gray color in every paragraphs appearing directly after any other paragraph.
16. Apply the following style to the `body` element of the document.

```
background-image: url(books.png); background-repeat: repeat-y
```

17. Play around with rule importance. Try to figure out what impacts which rules are more important than others if they concern the same element. Take rule order, source, placement, and selector composition into consideration. Add the `!important` clause in one of the conflicting rules and see how it influences its priority. Place one of the conflicting rules directly in the `style` attribute.
18. Cleanup the document by removing all presentational tags, closing all unclosed tags, etc..