

Assignment 2

Recommended readings:

- Lecture Slides as starting literature
- [MDN Links within slides for details](#)

Exercise 1 – HTML Tables

Open the file *ex1.html* and review the existing code. First focus on the html code in the `body` tag and sketch the expected page on a piece of paper. Then, focus on the CSS rules in the `style` tag and think about their effects.

Complete the table with the data from below. Please note, that no extra CSS rules need to be created or manipulated. A correct html structure and the correct use of the `scope`-attribute automatically lead to the correct styling of the table.

Top 5 Universities in Austria

University	Overall Rank	Rank in Austria
<u>University of Vienna</u>	164	1
<u>Medical University of Graz</u>	201-250	2
<u>Medical University of Innsbruck</u>	201-250	3
<u>Medical University of Vienna</u>	201-250	4
<u>University of Klagenfurt</u>	301-350	5

[2020 Austrian University Rankings](#)

Note: Add the link to all university homepages in the table. Link to the rankings of universities (required for the caption): <https://www.findamasters.com/study-abroad/europe/austria-university-rankings-postgraduate.aspx>

Exercise 2 – Forms

Part 1

Open the file *ex2.html* and extend the HTML form for a glazier shop (details follow). Do not use CSS styles for now. Be sure to properly apply labels and field sets. Select appropriate HTML elements for each requirement and make sure to only allow valid values as input. Use HTML checks (e.g. specific input types or pattern attribute) and no JavaScript. Provide example data for the user (placeholder) for each text field.

A glazier shop allows customers to order glass panes in various sizes (up to 200cm X 200cm) and different thicknesses (4mm, 6mm, 8mm, 12mm). The color of the glass may be any RGB color as specified by the user.

Create an HTML form for entering contact data, glass specification and final comments. The contact data contains the title, name, physical address, the email address and the mobile phone number of the customer. The glass specification allows the customer to order 1-10 panes of glasses. A pane of glass is characterized by its size, color and thickness. The final comments should allow the customer to enter free text of no more than 700 characters. You should use different types of input for color (color picker), thickness (radio), width and height (number), and quantity (select).

When you submit the form, the data is transmitted via email (if you have an email client configured). Make sure that the data visible in the email is useful for the recipient. E.g. for each value there must be a key identifying the type of data. All fields except phone and comments are required. There should be also a “reset” button for clearing all currently entered data.

Hints: Use Google Chrome or Firefox for submitting the form. Submitting the form via E-Mail is possible by combining the form’s `action` attribute and `mailto`-links. In order to specify useful names, consider using `name` attributes.

Part 2

Add CSS styles to the HTML form of part 1. The form should appear in the center of the screen and input elements should have “lightblue” focus color, except for the free text comments.

Exercise 3 – CSS Selectors

The following HTML Structure is given in file *ex3.html*:

```
<html>
  <body>
    <h2> This is some text </h2>
    <div id="content">
      <p> Text within paragraph 1 </p>
      <p> text within paragraph 2 </p>
      <h2>
        <p> Text within paragraph in h2 </p>
      </h2>
      <h1>
        <p> Text within h1 and p </p>
      </h1>
    </div>
    <div id="othercontent">
      <h1> A heading</h1>
      <p> Text within p1</p>
      <p> Text within p2</p>
      <p> Text within p3</p>
      <p> Text within p4</p>
      <h2>
        <p> Text within h2 within a paragraph</p>
      </h2>
      <h1>
        <p> Text within h1 within a paragraph </p>
      </h1>
    </div>
    <p> Text in paragraph as a child of body</p>
    <a title="somelink" href="#">Some Link</a> <a title="otherlink"
      href="#other">Some other Link</a>
  </body>
```

Explain what happens if you apply separately each of the following style definitions to the HTML structure. Uncomment one rule at a time in file *ex3.html* and explain the result.

```
#content, p { color: red; }
#content p { color: red; }
#content h2 p { color: red; }
#content > p { color: red; }
#content h1 p { color: red; }
div p:nth-child(2) { color: red; }
div p:nth-child(2n) { color: red; }
h2 {color: red;}
div.othercontent > p:first-child { color:red; }
div.othercontent h1 + p { color:red; }
div.othercontent h1 ~ p { color:red; }
a[title^="other"]:link { color:red; }
body a[title^=other]:link { color:red; }
.othercontent * p {color: red;}
```

Note: You can use the developer console of your web browser to apply the given CSS rules.

Exercise 4 – CSS Layout

Create css rules for the file *ex4.html* and include them in the style element. You must not change any other content of the file. The page should be rendered as shown in the figure below.

- The text “CSS in action” in the header should be formatted in the font verdana with a size of 2em and a margin of 10px;
- The background color of the header should be red 187, green 204, blue 232.
- The logo with the id “logoImage” should be positioned on the right of the text “CSS in Action” and should have a margin of 10px and a height of 4em.
- The menu (Topic 1 to Topic 4) should be rendered in one line (see example) and with the background-color red 20, green 90, blue 204. There should be a horizontal spacing of 20px between every item.
- The second menu item should be rendered in red.
- The heading of the second topic should also be rendered in red.
- All h1 headings directly nested within sections which are directly nested within the content div should be rendered in the font Verdana and a size of 1.5 em.
- The footer should be rendered in the same background-color as the header. The list items within the footer should be displayed in one row and should be centered.
- The footer should be on the bottom of the browser window, no matter how large it is.
- External links (for the sake of simplicity: links starting with http) appearing anywhere in the content should get a disclaimer “(external)”.
- In every second section the image(s) should be aligned to the right, otherwise to the left. Images should have a width of 100px.

The use of flexbox is recommended. Other solutions, however, are also possible and accepted. To get an overview over flexbox rules and features, check out the following page: <https://css-tricks.com/snippets/css/a-guide-to-flexbox/>

Note: You will need to apply paddings and margins for some elements. Use values approximating the layout of the figure below. For easier CSS debugging, use the developer console of your browser.

CSS in Action



Topic 1 **Topic 2** Topic 3 Topic 4

Topic 1



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Topic 2

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Topic 3



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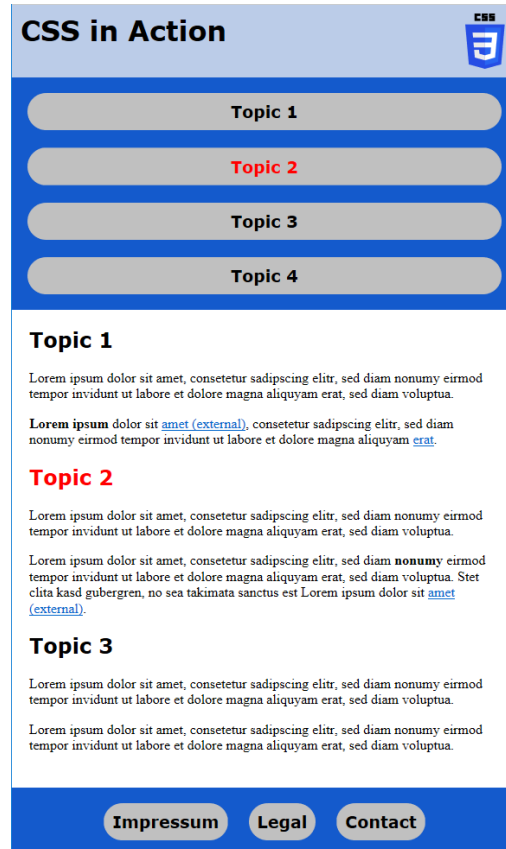
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Impressum Legal Contact

Layout after applying the styles

Exercise 5 – Responsive Layout

Change your layout of exercise 4 that it is rendered as follows in a browser pane with less than 600 pixels:



Note: You can easily test your solution by resizing your browser window to below than 600 pixels width. Alternatively, you can use the developer tools of your browser to specify specific device characteristics.