Assignment 1 (12.5%) - Writing HTML and CSS code
T-213-VEFF, Web programming I, 2025-1
Reykjavik University - Department of Computer Science, Menntavegi 1, IS-101 Reykjavík, Iceland

Deadline: Friday, February 7th 2025, 23:59

This is the first assignment in Web Programming I, with the topic to create a web site using HTML and CSS. The assignment can be completed in groups between 2-3 people.

1. Building a website based on a sketch

In the supplementary material of this assignment, you find three screenshots of a responsive web site (**page_599px.jpg, page_600px.jpg, and page_1000px.jpg**) along with a PDF document with more detailed design (**assignment1_design_document.pdf**). As the file names suggest, the images show the web site at a width of 599 pixels, 600 pixels, and 1000 pixels. In the PDF document, the design of the website is shown with certain conditions, e.g., color changes when clicking on the game pad buttons, the content of the dropdown menu, the implementation of the "hover" functionality on the information icon (the green "i"), as well as the appearance of buttons in different states.

Your task will be to implement this website so that it resembles the screenshots as closely as possible. You will deliver the web site as a single HTML file and a single external CSS file. The image files needed can be found in the supplementary material. To figure out the colours we used, you can use tools such as https://imagecolorpicker.com/.

Note that, for parts of the assignment, it might be required to investigate parts of HTML/CSS that have not (or not yet) been covered in the lectures.

Sites like developer.mozilla.org, w3schools.com and css-tricks.com can be really helpful.

2. The following requirements must be fulfilled in your solution

The following requirements must be fulfilled in your solution. Note that violating some of these requirements can lead to severe point deduction. Therefore, make sure to follow them closely and check the grading criterias in this file before your submission.

1. The HTML file must be named index.html

2. The CSS file must be named style.css

3. The image files must be named information.png and oops.jpg

4. All files must be in the root of the project (no folders)

5. The HTML document shall validate as an HTML 5 document without errors in the W3C validator (https://validator.w3.org), using automatic detection for the document type.

6. The CSS document shall validate as an CSS document without errors in the W3C validator (https://jigsaw.w3.org/css-validator/), using automatic detection for the document type.

7. All dimensions (font sizes, paddings, margins) shall be approximately correct. This means that they do not have to be exact, but they shall not cause wrong layouting. Specifically, the piano buttons need to be aligned so that they look like an actual piano, without gaps or vertical mis-alignment.

8. All images and text shall be as in the screenshots.

9. All game pads must be buttons. No images or image maps are allowed for the buttons.

10. All game pads must change color when clicked (see color changes in the design document)

11. All images shall have an alt attribute, containing a sensible description of the picture.

12. The dropdown menu should have three options, as shown in the design document.

13. The information symbol should display game instructions when hovered over with the mouse. The text and expected appearance can be found in the design document.

14. The web site shall be responsive. That means that all boxes re-size automatically when the width of the screen (or browser window) changes. Re-sizing has to work even on devices with virtual viewports. The following sub-requirements apply:

    a. When the screen is wider than 599px and less than 1001px, the game and all its contents should be visible, and the game board should resize according to the screen width.

    b. When the screen width is 599px or less, an error window, as shown in the image (page_599.png), should appear. The game and all its elements should disappear.

15. All CSS code shall be placed in its own CSS file. No inline CSS is allowed.

16. No external CSS files (e.g., Bootstrap) are allowed. The only exception is for including fonts.

17. There shall be no use of JavaScript.

18. There is no requirement on how the website shall look over 1000 pixels.

19. The website will be assessed using Google Chrome and Mozilla Firefox, in responsive mode in both browsers.

3. Submission

The project is submitted via Gradescope. Submit the following files:

- index.html

- style.css

- oops.jpg

- information.png

Submissions will not be accepted after the deadline.

4. Grading and point deductions

On the next page you can see the criteria for grading, this list is not exhaustive but gives you an idea of how grading will be for the project.

Critera	Point deduction
HTML Validation: The HTML document shall validate as an HTML 5 document without errors in the W3C validator (https://validator.w3.org), using automatic detection for the document type.	The HTML document does not validate as correct HTML in the W3C HTML Validator: -1 point per validation error (max -3 points).
CSS Validation: The CSS document shall validate as an CSS document without errors in the W3C validator (https://jigsaw.w3.org/css-validator/), using automatic detection for the document type.	The CSS document does not validate as correct CSS in the W3C CSS Validator: -1 point per validation error (max -3 points).
Dimensions: All dimensions (font-sizes, paddings, margins) shall be approximately correct. This means that they do not have to be exact, but they shall not cause wrong layouting. Specifically, the game board buttons need to be aligned so that they look like an game board, with desired gaps and withouf mis-alignment.	Dimensions (font sizes, paddings, margins) differ substantially from the screenshots: -1 point.
Images/Text/Dropdown content: Images or text or dropdown are as in the screenshots	Images, text, or dropdown menu content differ from the screenshots: -1 point.
Game board pads: All game board pads shall be buttons. No images or image maps are allowed for the pads.	Game board pads are images or not valid HTML elements: -2 points.
Game board pads pressed: All game board pads shall change color when pressed, color change for each pad is shown in assignment1_design_document.pdf	Any game board pad has a different style when pressed: -1 point
Button states: All button should have a desired look depending on the state, design is shown in assignment1_design_document.pdf. Buttons should change state when clicked. Disabled buttons should not change appearance when clicked.	Any button has incorrect style: -1 point. Any button has a different style when pressed: -1 point. Disabled button has the design of active button as pressed: -1 point.
Alt attributes: All images shall have an alt attribute, containing a sensible description of the picture.	At least one image misses the alt attribute or has the wrong alt attribute: -1 point.
Disappearing controls and game board: The controls, game board disappear under 600px and are replaced by an error message with the corresponding image.	The controls or game board do not disappear under 600px, or the error page does not appear: -2 points.
The website shall be responsive: The web site shall be responsive. That means that all game board pads, and level indicator resize automatically when the width of the screen (or browser window) changes. Re-sizing has to work even on devices with virtual viewports.	The game board pads or level indicator does not scale correctly with the viewport: -1 point.
Game board look: The game board consists of HTML buttons only and looks like an actual game in terms of layout and colours.	Different layout, elements, or colours: Up to -4 points, depending on severity.
Other: Other issues. For example, inline CSS, third-party CSS files, use of JavaScript.	Other issues. For example, inline CSS, third-party CSS files, use of JavaScript: Point deduction depending on severity.