LAB 7 (WEEK 41)

Fonts

Positioning

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Goal of the day

This week we use one more time the "flowers" example which has been modified to replace the images by figures. During this session we will focus on the different position strategies, especially with the absolute positioning. We will also work with some of the CSS properties learned so far.

You can find some useful readings/resources below as well as in Blackboard.

- https://www.w3schools.com/css/css_padding.asp

- https://www.w3schools.com/css/css_margin.asp

- https://www.w3schools.com/cssref/pr_text_text-transform.asp

- https://www.w3schools.com/cssref/css_colors.asp

- https://www.w3schools.com/cssref/css3_pr_text-shadow.asp

- https://www.w3schools.com/cssref/css3_pr_box-shadow.asp

- https://www.w3schools.com/cssref/pr_text_text-indent.asp

- https://www.w3schools.com/cssref/sel_firstchild.asp

- https://www.w3schools.com/cssref/pr_dim_width.asp

- https://www.w3schools.com/cssref/pr_text_letter-spacing.asp

- https://www.w3schools.com/cssref/pr_text_word-spacing.asp

- https://www.w3schools.com/cssref/pr_dim_line-height.asp

- https://www.fontsquirrel.com/tools/webfont-generator

- https://www.w3schools.com/cssref/css3_pr_font-face_rule.asp

- https://www.w3schools.com/cssref/pr_class_display.asp

- https://css-tricks.com/snippets/css/a-guide-to-flexbox/

- https://css-tricks.com/centering-css-complete-guide/

The structure of the html-template.html is as follows:

The following picture shows the template-page without styles (only a background color).

Planting Guide

Magnolia

Magnolia grandiflora

Magnolia grandiflora, commonly known as the Southern magnolia or bull bay, is a tree of the family Magnoliaceae native to the southeastern United States, from coastal Virginia south to central Florida, and west to eastern Texas and Oklahoma. Reaching 27.5 m (90 ft) in height, it is a large striking evergreen tree with large dark green leaves and large white fragrant flowers. Widely cultivated around the world, over a hundred cultivars have been bred and marketed commercially. The timber is hard and heavy, and has been used commercially to make furniture, pallets, and veneer.

Ranunculus

Magnolia grandiflora

Ranunculus asiaticus (Persian Buttercup) is a species of buttercup (Ranunculus) native to the eastern Mediterranean region in southwestern Asia, southeastern Europe (Crete, Karpathos and Rhodes), and northeastern Africa. It is a herbaceous perennial plant growing to 45 cm tall, with simple or branched stems. The basal leaves are three-lobed, with leaves higher on the stems more deeply divided; like the stems, they are downy or hairy. The flowers are 3-5 cm diameter, variably red to pink, yellow, or white, with one to several flowers on each stem.

Tulip

And the goal of the lab is to implement the following design without modifying the html code.

Planting Guide

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Tulip

Exercise 1

The goal of this exercise is to work with absolute and relative positioning.

You are not allowed to modify the structure of the html templated provided with the sources of this lab. Only the CSS can be modified.

Exercise 1.1

Clone the file "html-template.html" and rename it to "ex1-1.html". Then, follow the instructions below.

- The text will be aligned to the center by default
- The "plant boxes":
  - Will never exceed 550px wide.
  - Will be centered horizontally
- Images will never overflow the limits of the parent container (remember images are sitting inside a <figure>.

Figure 1 - ex1-1

Exercise 1.2

Clone the file "ex1-1.html" and rename it to "ex1-2.html". Then, follow the instructions below.

- The figcaption will:
  - Use "rgba(128, 128, 128, 0.5)" as a background color
  - Use white as a foreground color
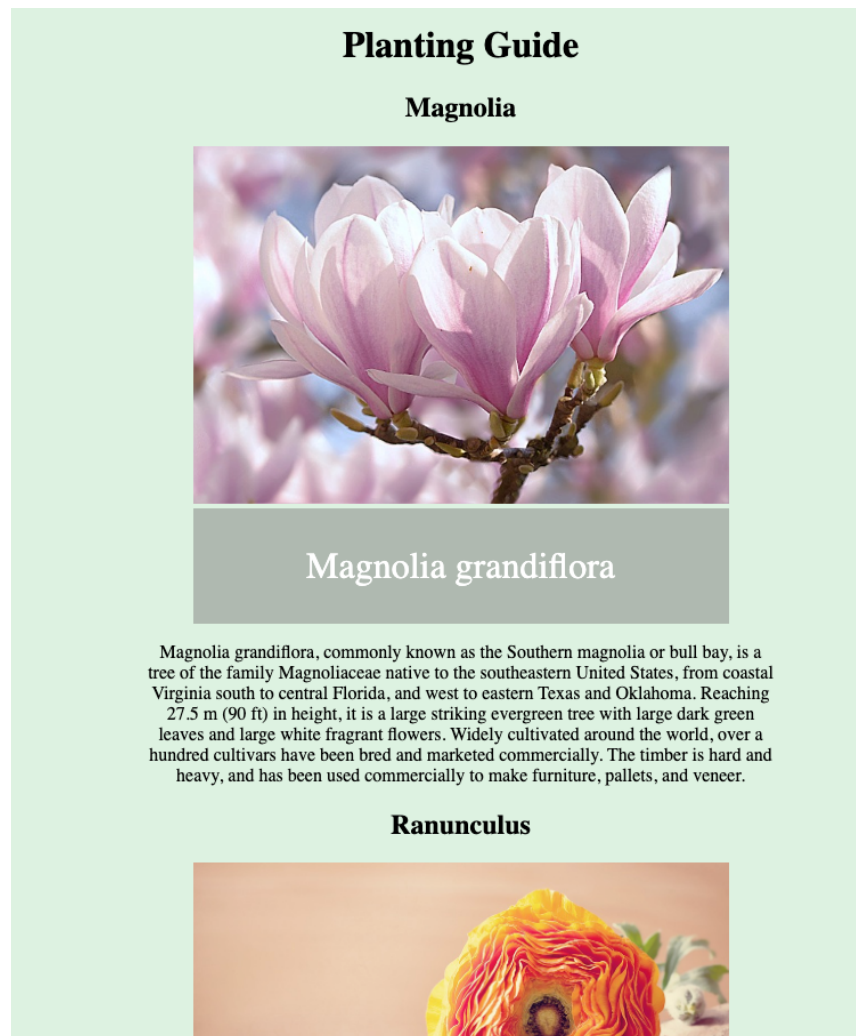 - Set the size of the font to 2em
  - Use a 1em padding

Figure 2 - ex1-2

Exercise 1.3

Clone the file "ex1-2.html" and rename it to "ex1-3.html". Then, follow the instructions below.
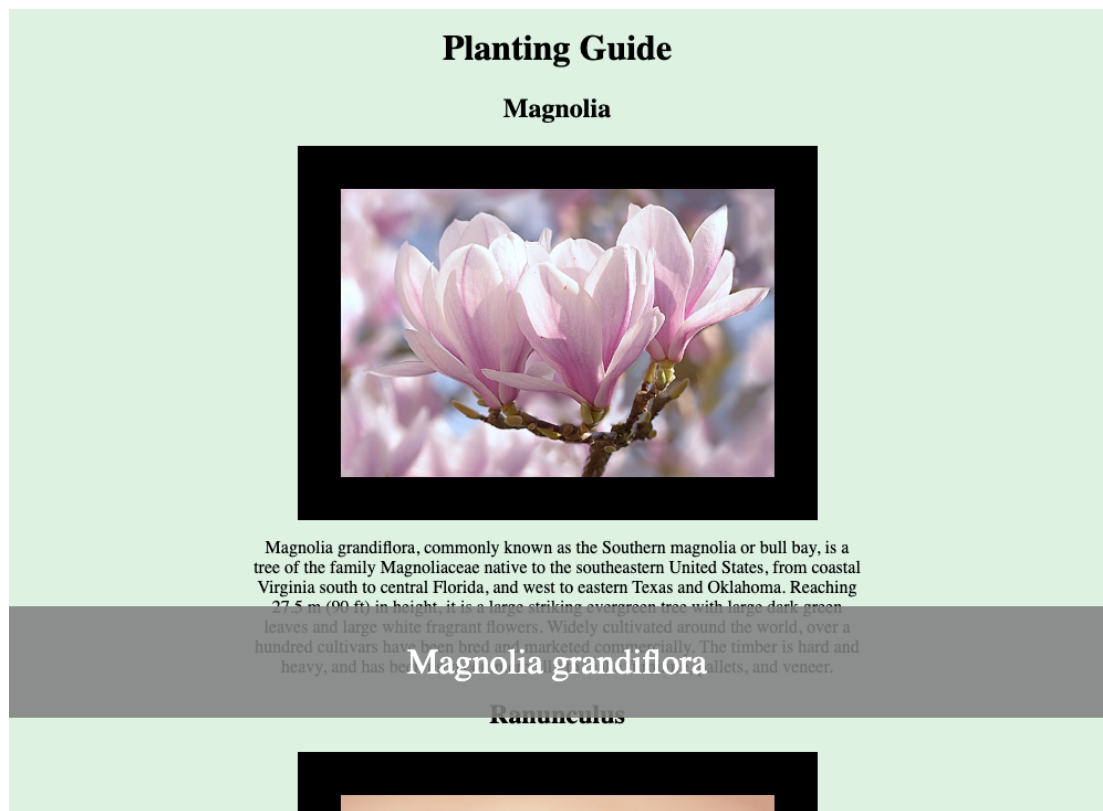
- Add a 39px border to figures

- Remove the gap between the image and the caption (remember that by default images are inline elements).

Exercise 1.4

Clone the file "ex1-3.html" and rename it to "ex1-4.html". Now, is when the fun begins. The main goal is to position the figcaption on top of the image.

- Use absolute position with the figcaption and center the element vertically on top of the image.
  - Position must be absolute
  - The caption must be positioned 0 px from both right and left sides (to fill the parent container)
    - right: 0
    - left: 0
  - Centered vertically:
    - top: 50%

What's wrong? Let's find it out in the next exercise.

Exercise 1.5

Clone the file "ex1-4.html" and rename it to "ex1-5.html".

Read the following articles:

- https://css-tricks.com/absolute-positioning-inside-relative-positioning/
- https://tomelliott.com/html-css/css-position-child-div-parent

Can you see the problem?

"

*A page element with **relative positioning** gives you the control to **absolutely position** children elements inside of it.*
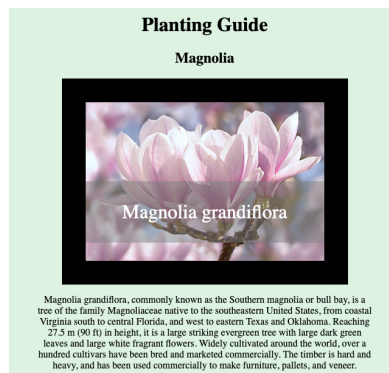
[…]

*What is happening is the absolutely positioned elements are positioning themselves in relation to the **body** element instead of their direct parent.*
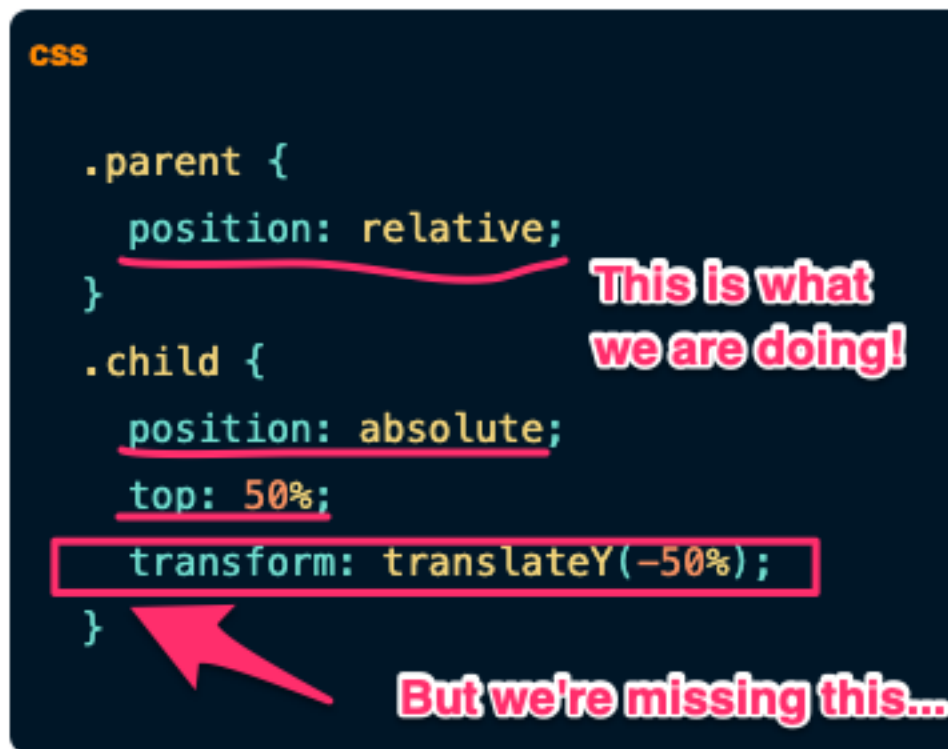
"

Can you fix it?

- The parent container of the element using absolute positioning must use a relative position

Yei! Almost there. The last step is to fix the vertical alignment of the heading. Remember the CSS tricks "centering css complete guide" article? Check the section "Vertically" -> "Is it a block-level element?" -> "Is the element of unknown height?"

- Fix the problem using the transform property.