CSS: positioning

Processing flow

Reminders:

- to each node of the DOM tree is associated a "box"
- the browser (continuously) browses the DOM tree to calculate the display and positioning of nodes

→ "**normal flow**" of the browser

Depth-first and left-to-right traversal

- CSS properties influence this processing flow
  - display, position, float

In the program

- Display
- Position
- Float

In the program

- Display
- Position
- Float

Display

The property display defines the management mode of an element's box in the flow.

Several possible values: *none*, *block*, *inline*, *inline-block*, etc.

None

- the box has zero size → the element is not displayed.
- different from property visibility with the value *hidden*: the element is hidden ("transparent") but its place is reserved. The descendants with visibility: *visible* are displayed.

Block

Type elements *block*

- may contain other elements *block*, *inline* or text
- have by default the width of their container (parent element)
- stack vertically on top of each other in normal flow order within their container
  force a line break in the text flow

It **is possible** to fix their width and height.

- This is the default mode for flow elements, titles and sectioning.

Inline

- Type elements *inline* can only contain other elements *inline* or text
- have by default a width and height defined by their content flow one after the other according to the natural text flow
- It is **not possible** to fix their width and height.
- This is the default mode for phrasing mode.

Inline-Block

A “hybrid” mode.

- Type elements *inline bloc* may contain other elements *block*, *inline* or text
- have by default a width and height defined by their content flow one after the other according to the natural text flow
- It **is possible** to fix their width and height.

Example

In the program

- Display
- Position
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Relative positioning

The property position allows to act on the positioning of the boxes. By default, its value is *static*.

position: *relative*

allows to shift the position of the box with respect to its position assigned by the normal flow⇒ translation

- translation determined by properties left, top, right, bottom
  left:10px= "*add 10px left margin = right shift*»
- other boxes are not influenced
- overlaps are possible(z-index property)

Example

Absolute positioning

Position : *absolute*

- the box is **withdrawn** from normal flow
- its position is determined relative to the container: a parent positioned in *absolute* Or *relative*, the initial container (= element <body>) if none.
- margin shift determined by properties left, top, right, bottom

Example

Fixed positioning

Position : *fixed*

- the box is **withdrawn** from normal flow
- its position is determined relative to the browser window
- margin shift determined by properties left, top, right, bottom
- the position in the page no longer depends on its position in the html code

Example

In the program

- Display
- Position
- Float

In the program

- Display
- Position
- Float

Floating positioning

The property float allows you to create "**floating**" boxes.
A floating box

- is removed from the normal flow
- is positioned on the left (float:*left*) or the right (float:*right*) of its container, the rest of the content is displayed by "flowing around"
- automatically acquires the property
  display: *block*
- must have a width

Consecutive floating blocks are juxtaposed.

Example1 Example2

Stop floating

Clear

the property clear is used to prohibit floating on a block element.

The possible values are:

None floating allowed
Left floating prohibited on the left
Right floating prohibited on the right
Both floating prohibited on left and right

Example