Web Design & Programming

Cascading Style Sheets (CSS) – Part 2

Xavier Belanger

Viewport

- The viewport is the usable, visible area in a web browser.
- For a desktop web browser, that’s the inside of the web browser window (excluding menus and such).
- For a mobile web browser, the full size of the screen is used most of the time (fullscreen mode).

Viewport Meta Declaration

- That rule will define how the content should be displayed.
- The current best practice is to not define anything strict, and to let the end-user adjust the display as needed.

-
  ```
  <meta name="viewport"
  content="width=device-width,
  initial-scale=1.0">
  ```

Units

- Two types of units can be used with CSS:
  - absolute (predefined, used in the real world)
  - relative (calculated from another value)

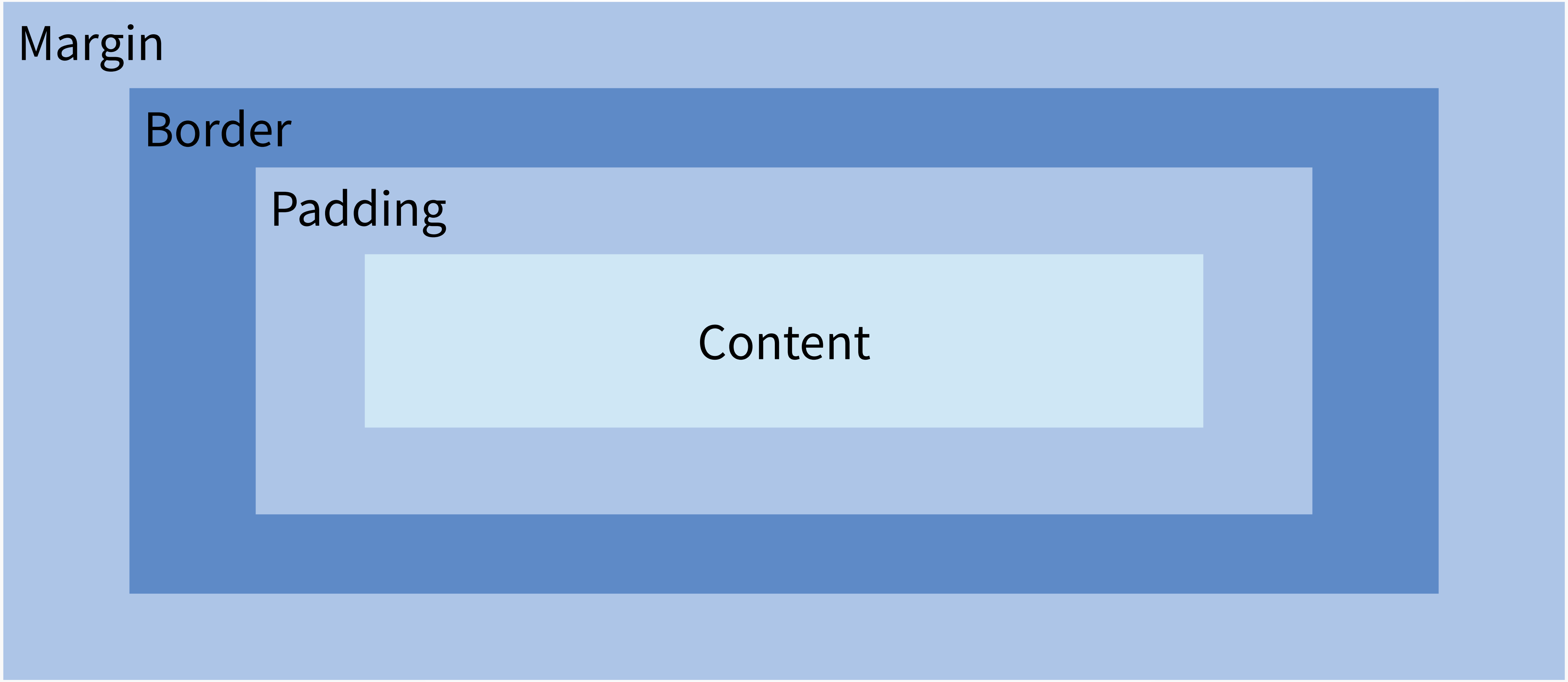
Absolute Units

- *in*: inch
- *px*: pixel, 1/96 of an inch
- *mm*, *cm*: millimeter, centimeter
- *q*: 1/40 of a centimeter
- *pt*, *pc*: point, pica, used for printed media

Relative Units

- *em*: font size of the current element
- *rem*: font size of the root element (16 pixels by default)
- *ex*: "height of an x character"
- *vh*: 1/100 of the viewport height
- *vw*: 1/100 of the viewport width
- *vmin*, *vmax*: minimum and maximum viewport values

The CSS Box Model



Borders

- *border-style*: none, solid, dotted, dashed, …
- *border-width*: thin, medium, thick or a value
- *border-color*: color
- *border-radius*: value
- *border-top-**, *border-bottom-**, *border-right-**, *border-left-**

Box Shadows

- *Box-shadow*:
  - horizontal offset
  - vertical offset
  - blur distance
  - spread distance
  - color
- `box-shadow: 3px 3px 5px 10px #808080;`

Positioning

- You can position an element using the position CSS attribute.
- Five values are possible: static, relative, absolute, fixed and sticky.
- You can combine this with top, bottom, right and left values.

Positioning Values

- *static*: normal positioning, no changes
- *relative*: offset from the original position
- *absolute*: based from the viewport or the containing element
- *fixed*: based from the viewport and doesn’t move
- *sticky*: relatively positioned, until scrolling where it will become fixed

Transformations

- CSS rules that can be used to rotate, translate, scale or skew an element.
- Multiples transformations can be applied to the same element.
- You can define the origin for the transformation (center by default) with transform-origin.
- `transform-origin: center bottom;`

Rotate

- `transform: rotate(90deg);`
- `transform: rotate(-90deg);`

Translate

- `transform: translateX(100px);`
- `transform: translateY(20px);`
- `transform: translate(100px, 20px);`

Scale

- `transform: scaleX(1.5);`
- `transform: scaleY(2);`
- `transform: scale(1.5, 2);`
- You can also use *scale3d* with 3 values (x, y, z)

Skew

- transform: skewX(10deg);
- transform: skewY(20deg);
- transform: skew(10deg, 20 deg);

Gradients

- linear-gradient, radial-gradient, conic-gradient
- repeating-linear-gradient,
- repeating-radial-gradient
- `background-image: linear-gradient 15deg, black, white);`