Web Technologies

Week # 7: CSS Position and Styling

Spring 2023

Today's Objective

- Recap

- The Box Model

- CSS Border

- CSS Margin

- CSS Padding

- CSS Position

The Box Model

- Box Model has:
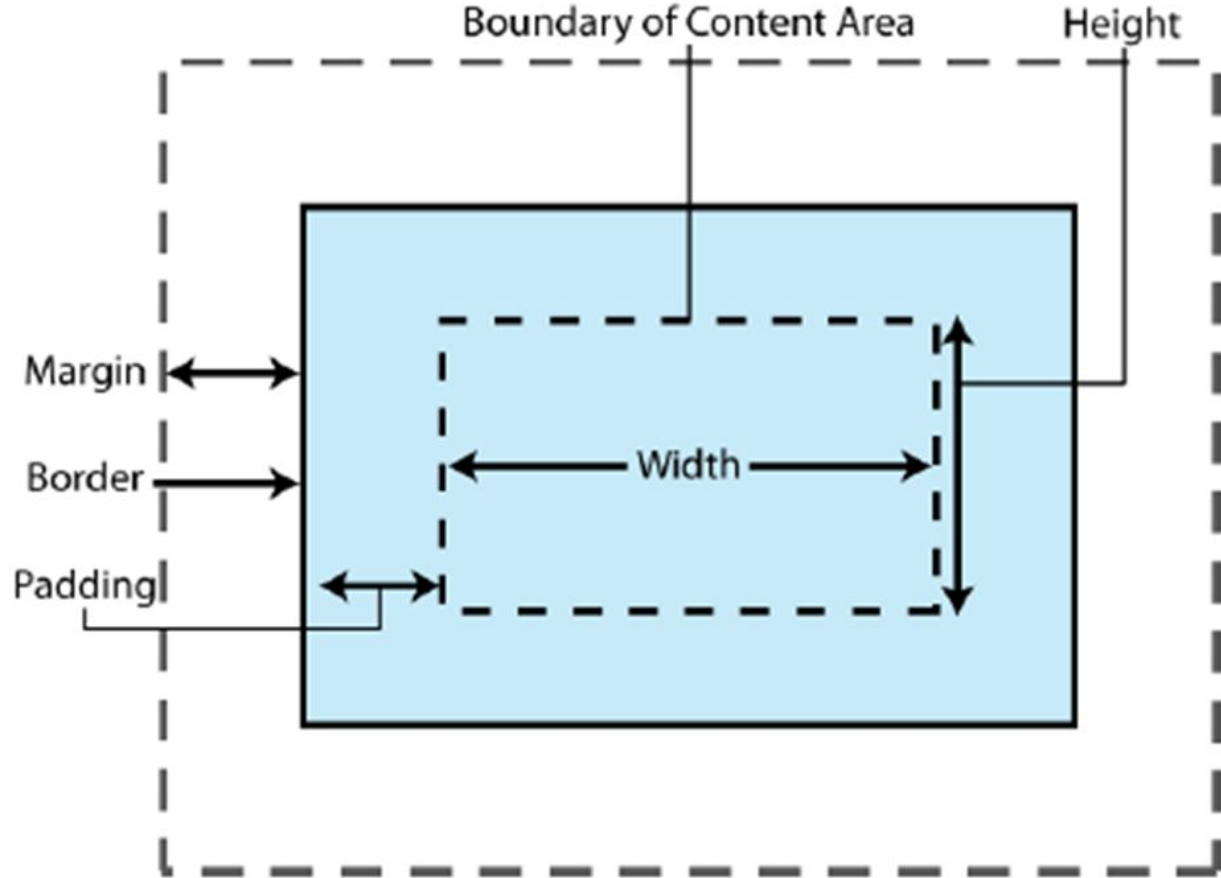 - Content
  - Padding
  - Border
  - Margin

Figure 4.4 Box model diagram

CSS Border Properties

- Following border properties can be applied to an element:
    - The **border-color** property is used to set the color of the border.
    - The **border-style** property is used to set the style of border.
    - The **border-width** property is used to set the width of border.
    - The **border-top, right, bottom, left** is used to set individual side style of border.
    - The **border-radius** property is used to make round corners of the border.
    - The **border** property is used to set the width, style and color of the border in one declaration.

CSS Margin

- The **margin** property is used to make a space around the element and it is <u>outside</u> the border.
- The margin for each side i.e. **margin-top**, **margin-right**, **margin-bottom**, and **margin-left** can be set individually.
- The margin property can have the following values:
  - number: value in px, pt, cm etc.
  - percentage: value like 10%, 20% …
  - auto: the browser calculates the margin automatically (use width)
  - inherit: margin should be inherited from the parent
- Margin can have a shorthand property as well like:
  - margin: 25px 50px 10px 20px   margin: 10px 20px 10px
  - margin: 40px 20px   margin: 50px

CSS Padding

- The **padding** property is used to make a space around the element's content and it is <u>inside</u> the border.
- The padding for each side i.e. **padding-top**, **padding-right**, **padding-bottom**, and **padding-left** can be set individually.
- The padding property can have the following values:
  - number: value in px, pt, cm etc.
  - percentage: value like 10%, 20% …
  - inherit: padding should be inherited from the parent
- box-sizing property to keep width equal to the actual width of the content
- Padding can have a shorthand property as well like:
  - padding: 10px 30px 20px 50px   padding: 10px 30px 10px
  - padding: 60px 40px   padding: 30px

CSS Display Property

- The **display** property is used to control the content layout on the page.
- It controls **if** and **how** an element is displayed
- The possible values can be:
  - Inline - show elements inline (override)
  - block - show elements in block form (new line - override)
  - inline-block
  - none - do not display the element and do not occupy any space as well.
    - **visibility: hidden** - alternate to display: none but it keeps the space of element

CSS Position

- The **position** property specifies the positioning method for an element.
  - Where to place the element on the webpage.
- There are five different values of position element:
  - static - default value of HTML elements
  - relative - position relative to its normal position
  - absolute - takes the position relative to its nearest element
  - fixed - fixed at relative to viewport i.e. do not change if page is scrolled or not
  - sticky - this is based on scrolling, sticks to top of viewport

Some more important Properties

- Max-Width - width to adjust horizontal scroll
- Z-index - stack of elements is controlled by z-index
- Overflow   - controls the content if it is more than available container
- Float - flow the element on the page to right or left
- Opacity - set the transparency of an element (images)
- CSS Gradient - Set the color in gradient style (linear, circular,...)

That's all for today...!