**Learning Objective**

* Master the positioning mode in CSS
* Understand the concept and characteristics of block-level formatting context
* Understand the creation and role of block-level formatting contexts
* Master the specific method for use of element float
* Master the method for clearing element floats

**Content**

* Positioning mode
  + Regular flow
    - In addition to the root element, floating element and absolutely positioned element, all other elements are within the regular flow (in-flow)
    - The root element, floating and absolutely positioned elements will be out of the regular flow (out of flow)
    - Box in a regular flow that belongs to a block-level formatting context or a row-level formatting context
  + floating
  + Absolute positioning
* Block Formatting Context
  + Boxes are placed one after the other in the container (including block) from top to bottom
  + The vertical distance between two sibling boxes is determined by the margin attribute
  + Vertical margins in the same BFC will be merged
  + The left outer edge of the box is next to the left side of the container (including block)
* The characteristics of the block-level formatting context (BFC) are as follows:
  + But the row-level box behind the floating element will be shorter to avoid floating elements
  + The height of the BFC will contain the floating elements within it
  + BFC does not overlap with floating elements
  + BFC can be created by methods such as overflow:hidden
* BFC can be created by the following methods:
  + Floating box
  + Absolute positioning frame
  + Non-block level block container (inline-block)
  + The attribute of overflow is a non-visible block
* What are the main effects of BFC?
  + Can float clearly
  + Prevent margin folding
  + Achieve more convenient double-column layout
* Inline Formatting Context
  + Boxes ARE placed one after one horizontally between the boxes
  + Margin, border and padding are valid
  + The rectangular area where boxes of the same line are located is called Line box
  + When a line box is not capable of placing all boxes in the context, such boxes will be divided into multiple vertically stacked line boxes.
  + The level within the line box is determined by the 'text-align' attribute
  + If a row-level block cannot be split (word, inline-block), the element will be determined as a whole to be placed in a line box
* Floating - Float
  + The floating element is detached from the regular flow and floats to the left or right of the container (including the block)
  + The floating box will float all the way to the outer edge of the container or another floating box
  + Floating elements do not affect the in-flow block-level boxes behind them
  + But the row-level box behind the floating element will be shorter, as as to avoid floating elements
* Clear floating - Clear
  + Specify which side of the element cannot be adjacent to the previous floating frame
  + Value: left | right | both

**Recommendation**

* CSS Layout Brief - Probably the Most Complete (<https://segmentfault.com/a/1190000011358507>)
* Learn CSS Layout (<http://zh.learnlayout.com/>)
* General Approach to CSS Layout (<https://zhuanlan.zhihu.com/p/25565751>)
* CSS Layout (<https://developer.mozilla.org/zh-CN/docs/Learn/CSS/CSS_layout>)