

CSS Position Property

- CSS positioning is about controlling the placement of elements within a web page
- The position property specifies the positioning type for an element.
- **Static:** Static positioned elements are not affected by the top, bottom, left, and right properties.
 - An element with position: static; is always positioned according to the normal flow of the page
 - ```
div.static {
 position: static;
 border: 3px solid #73AD21;
}
```
- **Relative:** An element with position: relative; is positioned relative to its normal position in the document flow.
  - Setting the top, right, bottom, and left properties will cause the element to be adjusted away from its normal position. Other content will not be adjusted to fit into any gap left by the element.
  - ```
div.relative {  
    position: relative;  
    left: 30px;  
    border: 3px solid #73AD21;  
}
```
- **Fixed:** An element with position: fixed; is positioned relative to the viewport, which means it always stays in the same place even if the page is scrolled. The top, right, bottom, and left properties are used set the final location of the element.
 - A fixed element does not leave a gap in the page where it would normally have been located.
 - ```
div.fixed {
 position: fixed;
 bottom: 0;
 right: 0;
 width: 300px;
 border: 3px solid #73AD21;
}
```

- **Absolute:** An element with position: absolute; is positioned relative to the nearest positioned ancestor (with position other than static).
  - However; if an absolute positioned element has no positioned ancestors, it uses the document body, and moves along with page scrolling.
  - `div.relative {`

```

position: relative;
width: 400px;
height: 200px;
border: 3px solid green;

```

`}`
  - `div.absolute {`

```

position: absolute;
top: 80px;
right: 0;
width: 200px;
height: 100px;
border: 3px solid red;

```

`}`
- **Sticky:** An element with position: sticky; toggles between relative and fixed position, depending on the scroll position.
  - A sticky element is positioned relative until a certain scroll position is reached - then it "sticks" in that place (like position:fixed).
  - `div.sticky {`

```

position: sticky;
top: 0;
background-color: green;
border: 2px solid #4CAF50;

```

`}`

## The CSS z-index Property

- The z-index property specifies the stack order of positioned elements.
- The stack order defines which element should be placed in front or behind other elements.

- When elements are positioned, they can overlap other elements.

**Example:** `img {  
 position: absolute;  
 left: 0px;  
 top: 0px;  
 z-index: -1;  
}`

**Note:** z-index only works on positioned elements (`position: absolute`, `position: relative`, `position: fixed`, or `position: sticky`) and flex items (elements that are direct children of `display: flex` elements).