CSS POSITIONING

THE CSS POSITION RULE

When you create HTML elements, the browsers needs to decide where in the viewport/window to draw the elements of your page.

Originally, HTML was designed to view documents and not layouts. This is why styling your page can be so frustrating as much of CSS was designed for academic papers.

There are five kinds of positioning:

1. Static (default)
2. Relative
3. Absolute
4. Fixed
5. Sticky

THE DOCUMENT MODEL FLOW

By default, your browser will render elements to the screen in a “western reading style”. It will start at the top left of the screen, move towards the right until it is forced to move down and start at the left again.

We have seen this in our HTML pages so far, where our elements seem to be stacked either on top or to the right of each other.

We have also seen that when you nest HTML elements, the parent element will always surround the child element.

STATIC

By default our elements have position **static**

Static elements follow the structure you are used to seeing, left to right, top to bottom in order.

Remember that you can nest your HTML tags, which means that the parent will now stretch to fit its children even if they are all statically positioned.

RELATIVE

The relative position allows you to move an element around on your page “relative” to the element’s normal static position.

If you give a position of relative, you will see no difference, but we are now able to give 4 new CSS properties to the element:

- top
- bottom
- left
- Right

Note that when using a relative position, your browser still positions everything else around the relative element’s **original** position as if it never moved.

ABSOLUTE

Position absolute will totally remove the element from the document flow, and all other elements will render as if that element did not exist.

The absolute position does something a bit tricky when using top, bottom, left or right. The absolute positioned element will look through its ancestors in HTML for the first **non-static** positioned element. If it does not find one, it will use the top left hand corner as a reference.

Note that if no top, bottom, left or right is specified that your element will still start in the same static position, but other elements just ignore it.

FIXED

The fixed position is very similar to the absolute in the sense that the element is taken out of the document flow entirely.

The big difference comes when the user scrolls on the page, the fixed element will stay at the exact same location on the page.

Note that unlike absolute, the fixed position is **always** referencing the whole page when using top, left, bottom and right. It doesn't matter what the parent position is.

STICKY

The sticky position is a mix between fixed and relative position.

The element will start in the normal static position and all other elements will render as if it was static, but when the user scrolls the sticky positioned element will “stick” to the top of the page.

This is a newer position! Browser support is not the best for this position as of yet, but as time goes on it will become normal.

Z-INDEX

You may be wondering how your browser decides what elements draw "on top" of other elements. This is where the z-index property comes into play.

The z-index is just a number you give in CSS. Think of the numbers as a position in a stack, where the higher the number you get the higher in the stack you are.

So if you have a z-index of 2, anything with a z-index < 2 will draw below you where as anything with z-index > 2 will draw above you.

FLOAT

CSS added the notion of “float” to try and achieve text layouts similar to how magazines and newspapers worked.

Developers wanted the ability to wrap text around images. Please remember that this was the only intent for this as a property. Using it to try and create layouts will be more challenging as it wasn’t designed for that.

What also makes float challenging to understand is the fact that it was mean to be understood in a 3D context where elements could “float”.

This is by far the best explanation:

https://www.youtube.com/watch?v=xara4Z1b18I

We will only use float for the intended design. To wrap text around images. Anything else means you should be using a newer layout tool like grid or flexbox.