**Assignment-IV**

1. How to automatically set the height of div to take the height of parent?

Div won't adjust its height based upon its contents.

* Solutions of the automatically set height of div.
* Flex
* Absolute Positioning
* Tables(display:table)

1. What is the difference in using px, em, pt, vh, vw?Which is the best measuring unit to use?

* **px:** Pixels (px) are considered absolute units, although they are relative to the DPI and resolution of the viewing device. But on the device itself, the PX unit is fixed and does not change based on any other element. Using PX can be problematic for responsive sites, but they are useful for maintaining consistent sizing for some elements. If you have elements that should not be resized, then using PX is a good choice.
* **em:** The “em” is a scalable unit that is used in web document media. An em is equal to the current font-size, for instance, if the font-size of the document is 12pt, 1em is equal to 12pt. Ems are scalable in nature, so 2em would equal 24pt, .5em would equal 6pt, etc. Ems are becoming increasingly popular in web documents due to scalability and their mobile-device-friendly nature.
* **vw&vh:** Viewport units represent a percentage of the current browser viewport (current browser size). While similar to % units, there is a difference. Viewport units are calculated as a percentage of the browser's current viewport size. Percentage units on the other hand are calculated as a percentage of the parent element, which may be different than the viewport size**.**
* **pt:** Points are traditionally used in print media (anything that is to be printed on paper, etc.). One point is equal to 1/72 of an inch. Points are much like pixels, in that they are fixed-size units and cannot scale in size.

1. How to draw geometrical shapes using CSS and SVG?

CSS and SVG Shapes are awesome because of its simplicity and the dramatic difference it can make when used properly. There are some CSS properties that change the shape of items like **shape-outside** that lets you wrap text that conforms to the shape of your image.

**SVG:** SVG, which stands for Scalable Vector Graphics, is an XML-based vector image format for the Web. Unlike GIF, PNG and JPEG image file formats, SVG is scalable, which means that no matter how you scale or enlarge the image file, the quality will still look good.

* The following are the elements can be used to draw inside its canvas.
* Circle
* Rectangle
* Ellipse
* Line
* Polyline
* Polygon
* Path
* Text

**CSS:** CSS is capable of making all sorts of shapes. Squares and rectangles are easy, as they are the natural shapes of the web. Add a width and height and you have the exact size rectangle you need. Add border-radius and you can round that shape, and enough of it you can turn those rectangles into circles and ovals.

We also get the [::before and ::after](https://css-tricks.com/almanac/selectors/a/after-and-before/) psuedo elements in CSS, which give us the potential of two more shapes we can add to the original element. By getting clever with positioning, transforming, and many other tricks, we can make lots of shapes in CSS with only a single HTML element.