**Assignment Tasks -4**

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

**1.** Parent container that encapsulates a number of child containers. The child containers have heights depending on the amount of text they hold.

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

**2.** CSS offers a number of different units for expressing length.  If a property accepts a value in px (margin: 5px) it also accepts a value in inches or centimeters (margin: 1.2in; margin: 0.5cm) and vice-versa. The so-called absolute units (cm, mm, in, pt and pc) mean the same in CSS as everywhere else, but only if your output device has a high enough resolution. On a laser printer, 1cm should be exactly 1 centimeter. But on low-resolution devices, such as computer screens, CSS doesn't require that. And indeed, the result tends to be different from one device to another and from one CSS implementation to another. It's better to reserve these units for high-resolution devices and in particular for printed output. On computer screens and handheld devices, you'll probably not get what you expect. cm on a desktop screen looks small. But the same on a mobile phone directly in front of your eyes looks big. It's better to use relative units, such as em, instead.

The em and ex units depend on the font and may be different for each element in the document. The em is simply the font size. In an element with a 2in font, 1em thus means 2in. Expressing sizes, such as margins and paddings, in em means they are related to the font size, and if the user has a big font (e.g., on a big screen) or a small font, the sizes will be in proportion. Declarations such as text-indent: 1.5em and margin: 1em are extremely common in CSS. Other new units make it possible to specify sizes relative to the reader's window. These are the vw and vh. The vw is 1/100th of the window's width and the vh is 1/100th of the window's height. There is also vmin, which stands for whichever is the smallest of vw and vh. And vmax.

**3. How to draw geometrical shapes using CSS and SVG?**

**3.**SVG:

Scalable Vector Graphics ([SVG](https://www.w3.org/Graphics/SVG/)) is like HTML for graphics. It is a markup language for describing all aspects of an image or Web application, from the geometry of shapes, to the styling of text and shapes, to animation, to multimedia presentations including video and audio. It is fully interactive, and includes a scriptable DOM as well as declarative animation (via the SMIL specification). It supports a wide range of visual features such as gradients, opacity, filters, clipping, and masking.

The use of SVG allows fully scalable, smooth, reusable graphics, from simple graphics to enhance HTML pages, to fully interactive chart and data visualization, to games, to standalone high-quality static images. SVG is natively supported by most modern browsers (with plugins to allow its use on all browsers), and is widely available on mobile devices and set-top boxes. All major vector graphics drawing tools import and export SVG, and they can also be generated through client-side or server-side scripting languages.

CSS:

Cascading Style Sheets ([CSS](https://www.w3.org/Style/CSS/)) is the language for describing the presentation of Web pages, including colors, layout, and font information. It may be used to enhance the graphical aspects of HTML and SVG. You can read more on the page for [HTML & CSS](https://www.w3.org/standards/webdesign/htmlcss).