Lecture 18: CSS Size Units In Depth –

CSS has several units for expressing a length. There are two types of length units, absolute and relative.

→ Absolute Lengths: Absolute lengths units are fixed and a length expressed in any of these will appear as exactly as size. Absolute length units are not recommended for use on screen, because screen size vary too much. For example:

* cm = centimeters
* mm = millimeters
* in = inches (1in = 96px = 2.54cm)
* px* = pixels (1px = 1/96th of 1in)
* pt = points (1pt = 1/72 of 1in)
* pc = picas (1pc = 12pt)

→ Relative Lengths: Relative lengths unit specify a length relative to another length property. Relative length units scale better between different rendering medium.

* em: Relative to the font size of the element (2em means 2 times size of current font)
* rem: Relative to the font size of the root element.
* vw: Relative to the 1% of the width of the viewport.
* vh: Relative to the 1% of the height of the viewport.
* %: Relative to the parent element.

→ Difference between logical pixel and physical pixel:

* logical pixel: logical pixels, referred to as css pixels and it is virtual unit used in web design and development.

logical pixels allow responsive design by providing a consistent reference point for defining sizes and distances on webpages.

* physical pixel: physical pixels are also known as device pixels or hardware pixels. These are individual, tiny physical units on a display screen that emit light. Physical pixels are the size of the actual hardware pixels on the device. The number of physical pixels per logical pixel is described by the devicePixelRatio.

→ Difference between ppi and dpi –

* PPI: PPI refers to the number of pixels that are present in one inch of a digital image or display and it stands for pixel per inch.

PPI is commonly used to describe the resolution of screens, such as computer monitors, smart phones and tablets.

* DPI: DPI is used to measure the number of dots (ink droplets) that a printer can produce in one inch on a printed page and it stands for dots per inch.

DPI is more relevant in the context of printing devices. It indicates the level of details and clarity that can be achieved when printing images or text.