CSS Measurements

Absolute units and relative units are two different types of measurement used in web design and development. They serve different purposes and have distinct characteristics.

Absolute units are fixed measurements that maintain a constant value. They provide precise dimensions and positions on a webpage. The most used absolute unit is pixels (px), which represents a single dot on a screen. Other absolute units include points (pt), inches (in), centimeters (cm), and millimeters (mm). However, these units based on physical measurements are rarely used in web design due to their lack of scalability across devices.

On the other hand, relative units are flexible measurements that adapt to the context and size of the elements around them. They offer scalability and responsiveness, allowing the layout to adjust based on factors such as screen size or user preferences. Common relative units include percentages (%), which are relative to the parent element's size, and "em" units, which are relative to the font size of the parent element. Another relative unit is "rem," which is like "em" but relative to the root element of the document. Viewport units (vw, vh, vmin, vmax) are also relative to the size of the viewport, and "ch" units are relative to the width of a specific character in the font.

In summary, absolute units provide fixed measurements, while relative units offer flexibility and adaptability. Relative units are widely preferred in modern web design for their responsiveness across devices and screen sizes, whereas absolute units are useful when precise control over dimensions and positioning is necessary.