

Day6

Responsive design

Media Queries

```
@media (orientation: landscape) {  
    // Styles for landscape mode.  
}  
@media (orientation: portrait) {  
    // Styles for portrait mode.  
}
```

Or using separate stylesheets:

```
<link rel="stylesheet" href="landscape.css" media="(orientation: landscape)">  
<link rel="stylesheet" href="portrait.css" media="(orientation: portrait)">
```

```
@media (min-width: 400px) {  
    // Styles for viewports wider than 400 pixels.  
}
```

```
@media (max-width: 400px) {  
    // Styles for viewports narrower than 400 pixels.  
}
```

Internalization

- a. practice of designing and implementing a website in a way that it can easily be adapted to various languages and regions without requiring significant changes to the codebase
- b. In an LTR context, margin-inline-start acts like margin-left, while in an RTL context, it behaves like margin-right.
- c. Writing-mode
 - i. The writing-mode property defines whether lines of text are laid out horizontally or vertically and the direction in which blocks progress.

- ii. horizontal-tb: Default setting. Text flows horizontally from left to right, and blocks progress from top to bottom.
 - iii. vertical-rl: Text flows vertically from top to bottom, and blocks progress from right to left.
 - iv. sideways-rl: Text flows vertically, but characters are oriented sideways, progressing from right to left.
- d. signals to the browsers which language the document is in, which assists in setting the writing mode, document direction and translations.

Macro Layouts

- a. These two work the same

```
@media (min-width: 45em) {  
  main {  
    display: grid;  
    grid-template-columns: 2fr 1fr;  
  }  
}
```

```
@media (min-width: 45em) {  
  main {  
    display: flex;  
    flex-direction: row;  
  }  
  
  main article {  
    flex: 2;  
  }  
  
  main aside {  
    flex: 1;  
  }  
}
```

- b. You don't always need to use media queries.
- c. Macro layouts are foundational layouts for a page, spanning large amounts of visual area, and often are adjusted with page size media queries.
- d. Macro layouts may adapt to fit content, fill available space, and more, without a media query.

Micro Layouts

- a. Micro layouts focus on the detailed arrangement and styling of elements within the macro layout sections. This includes the layout of text, images, buttons, forms, and other smaller components within a given section.

Typography

- a. If you don't specify any styles for your text, browsers will apply their own default styles. These are called User Agent stylesheets, and may vary from browser to browser.
- b. Fonts, user's preferences, the size of the text, line length, and the distance between the lines of text. All needs to be checked properly beforehand.
- c. Scaling text
 - i. The text will be resizable if you mix in a relative unit—like em, rem or ch. The CSS calc() function is perfect for this.
 - ii. Clamp :
 1. control where the scaling starts and ends using the CSS clamp() function. This “clamps” the scaling to a specific range.

```
html {  
  font-size: clamp(1rem, 0.75rem + 1.5vw, 2rem);  
}
```

2.
 - a. Here, the default is value at mid.
 - b. But as screen size decreases, the value at mid also will decrease. While decreasing, if it tends to go less than min value i.e. 1rem, then it stops decreasing
 - c. Same thing in context of max value i.e. 2rem
3. It allows locking the font size between sensible minimums and maximums while also providing a scalable middle value.
- d. Don't set your line-lengths with a fixed unit like px. Users can scale their font size up and down and your line lengths should adjust accordingly. Use a relative unit like rem or ch.
- e. line height is relative to the font-size.
- f. @font-face to tell browsers where to find your web font files.

Responsive Images

- a. If the max-width property is set to 100%, the image will scale down if it has to, but never scale up to be larger than its original size:
- b. If the background-size property is set to "contain", the background image will scale, and try to fit the content area. However, the image will keep its aspect ratio
- c. If the background-size property is set to "100% 100%", the background image will stretch to cover the entire content area:
- d. If the background-size property is set to "cover", the background image will scale to cover the entire content area. Notice that the "cover" value keeps the aspect ratio, and some part of the background image may be clipped:
- e. You can use the media query min-device-width, instead of min-width, which checks the device width, instead of the browser width.