CSS

Display Mode

Elements in HTML are primarily “inline” or “block” elements.

• An inline element allows content to flow around its left and right sides.

• A block element fills the entire line and nothing is displayed on its left or right side.

The CSS display property allows you to specify the type of box used for an HTML element.
The HTML `<div>` tag can be used to give your page structure.

Like the `<span>` tag, it has no specific meaning except to outline a section of content.

The `<div>` tag is only used in the body section of an HTML document.

Initially, this structure will not be visible to the user.

Used in conjunction with CSS, we will have more control over the form and layout of web pages.
Page Layout

There are several ways to design the layout of a web page with CSS.

• CSS float property
• CSS positioning
• CSS flexible box
• CSS grids
CSS Float Property

The CSS float property allows you to position block elements inline. This means that any element, block or inline, can be positioned alongside another element. The CSS float property is one of the main techniques of web page layout.
The CSS position property specifies the type of positioning used for an element on a page.

- **static**: Elements are rendered in order, as they appear in the document flow (this is the default)
- **absolute**: Element is positioned relative to its first positioned (not static) parent element
- **fixed**: Element is positioned relative to the browser window
- **relative**: Element is positioned relative to its normal position
Flexible box, or flexbox, is a new layout mode in CSS3 that is becoming increasingly common on web pages.

Flexbox consists of flexible containers and flexible items within.

A flex container expands items to fill available free space or shrinks them to prevent overflow.

In practice, flexbox can accommodate different screen sizes and different display devices more easily than the CSS `float` property.
Web pages are often laid out using grid systems.

CSS grids are intended to make this process more intuitive by defining a grid and then specifying where content should be placed within it.

CSS grid layout is an experimental feature that is not widely supported across browsers yet.
Responsive Web Design

“The control which designers know in the print medium, and often desire in the web medium, is simply a function of the limitation of the printed page. We should embrace the fact that the web doesn’t have the same constraints, and design for this flexibility. But first, we must ‘accept the ebb and flow of things.”

—John Allsopp, “A Dao of Web Design”
Responsive Web Design

Mobile web traffic is at least as relevant as laptop/desktop traffic now.

We should design for flexibility and build websites for the types of screens that will be used to access them.

Responsive web design uses “media queries” to determine properties of the device a web page is being served on.

Media queries can be used to change CSS properties for a given condition.
Media Queries

Features you can include in a query:
- width
- height
- device-width
- device-height
- orientation
- aspect-ratio
- device-aspect-ratio
- color
- color-index
- monochrome
- resolution
- scan grid

Most of the above can be combined with min- and max- prefixes

The most common are min-width and max-width prefixes

Media queries can be used to load an alternate style sheet or offer alternate styles within an existing style sheet
Media Query Syntax

Two possible values: only or not

only screens out older browsers from reading the rest of the query

not negates the result: not screen
means everything except screen

type is the media type

feature: value

Enclosed by parentheses and preceded by the word, and

Predefined media features

Multiple features and values can also be combined with and
Basic CSS Rule Set

body {background-color: orange;}

CSS Rule Set with @media Rule

@media only screen and (min-width: 480px) {
  body {background-color: orange;}
}

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Basic Style Sheet Link

<link rel="stylesheet" href="style/basic.css">

Style Sheet Link with Media Attribute

<link rel="stylesheet" media="only screen and (min-width: 640px)" href="style/main.css">
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HTML and CSS