

Understanding Media Queries

Media queries are a powerful CSS feature that allow web designers to create responsive and adaptive layouts. They enable targeting specific device characteristics, such as screen size, resolution, and orientation, to apply tailored styles.





Syntax and Structure

The @media Rule

Media queries begin with the @media rule, followed by a media type and one or more media features.

Media Types

Common media types include 'screen', 'print', 'speech', and 'all'.

Media Features

Media features describe characteristics of the output device, such as width, height, orientation, and resolution.

Common Media Query Breakpoints

Small Screens

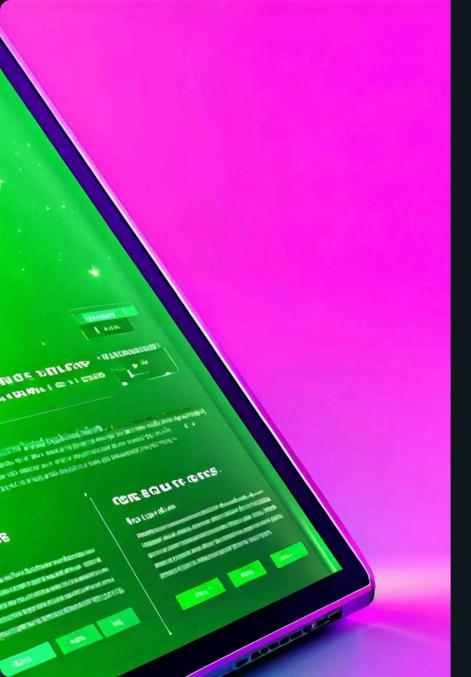
Smartphones (320px - 480px)

Medium Screens

Tablets and small laptops (481px - 768px)

Large Screens

Desktops and larger devices (769px and up)



Using Media Queries in CSS

Inline Media Queries

Apply styles directly within the @media rule.

Separate Media Queries

Create separate CSS files for different media types or breakpoints.

Conditional Imports

Use the @import rule to conditionally load CSS based on media queries.



Responsive Design Best Practices

Mobile-First
Approach

Start designing for small screens and progressively enhance for larger devices.

3 Optimized Assets

Serve appropriately sized images, videos, and other media based on the user's device.

Fluid Layouts

Use flexible units like percentages, ems, and rems to create layouts that adapt to different screen sizes.

Progressive
Enhancemen
t

Ensure core functionality is accessible on all devices, then add enhancements for capable browsers.