

Intro to responsive web design

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The basic idea of responsive web design is that a website should “respond” to the device it’s being viewed on.

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 - > better idea: don't put nonessential elements in your design

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- * Providing finger-friendly links and buttons for mobile users
- * direct and respond to mobile features (geolocation, orientation)

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So this is why responsive design is such a hot topic — you design once and build one version of your site that works great on big and small devices.

Responsive design: the ingredients

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Reassuring thought no. 2: You only need three ingredients to build a responsive website.

- 1) A flexible, grid-based layout;
- 2) Flexible images and media; and
- 3) Media queries (a module from the CSS3 spec)

Flexible layout, explained

Most of you are used to working in pixels and point sizes. That's fine for static pages, but to make things work in a relative manner, we need to make some decisions based on ratios, or how things compare to one another.

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(warning: ahead be math)

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To figure out what we need to do in terms of making things proportional, we simply take the target font size from the comp, and divide it by the font-size of its containing element — its context. The result is the font size expressed in ems.

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$\text{target} \div \text{context} = \text{result}$

CSS media queries:

min-width: *width*

Applies when viewport is greater than or equal to *width*

max-width: *width*

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Applies when viewport is greater than or equal to *width*

max-width: *width*

Applies when viewport is less than or equal to *width*

min-device-width: *width*

Applies when the device's screen width is greater than or equal to *width*

max-device-width: *width*

Applies when the device's screen width is less than or equal to *width*

What's the difference between width and device width?

width is the width of a browser viewport. On desktop browsers, this is usually **smaller** than the screen width; on mobile browsers, it's usually **larger** than the screen width so that you can zoom, pan, etc. Mobile Safari's virtual viewport is 980px wide, even though the device screen is between 320-768 pixels wide.

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device-width is the actual width of the device's screen. On a desktop, this usually isn't important; but on a mobile device, it can be useful to know the screen width.

So let's take a look at a responsive layout.

(download and such)

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