What Are Some Techniques for Improving CSS Performance?

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Every project is unique and you should carefully consider which ones of these techniques will be most helpful for your web application.

First, since all styles are parsed, you should remove any unnecessary styles from your CSS stylesheets.

You should also split your CSS styles into multiple files. This way, if a file is not required to render a specific web page, it will not be loaded and it won't block the rendering process.

By default, the browser assumes that all stylesheets should block the rendering process. But you can tell the browser when a stylesheet should be loaded by using the `media` attribute and a media query.

In this example, the `print.css` stylesheet will only be applied when the document is being printed because it has the `media` attribute with the value `print`:

```
<link rel="stylesheet" href="print.css" media="print" />
```

You can also minify your CSS files automatically to reduce their size during the build process and compress these files in the server where you host your web application.

Try to keep your CSS selectors as simple as possible and don't try to select more elements than necessary.

Take advantage of the cascading nature of CSS whenever possible. Some styles will be inherited.

Preloading resources with `rel="preload"` is another important technique. Critical assets should be loaded first.

Remember that CSS animations can have an impact on performance.

Animating certain CSS properties, such as dimensions, position, and layout, triggers a process called "reflow," during which the browser recalculates the position and geometry of certain elements on the page. This requires a repaint, which is computationally expensive.

Therefore, it's recommended to reduce the number of CSS animations as much as possible or at least give the user an option to toggle them on or off.

And even though fonts can enhance the visual presentation of your web application, they can have an impact on performance. Some fonts have large files, up to multiple megabytes. Try to use two or three fonts at most and use web-safe fonts whenever possible.

You may also consider preloading the most important fonts to have them ready for quick use.

These are some of the most important and commonly used techniques for optimizing CSS in web development. By incorporating them, you can optimize your website's performance to create a smooth user experience.

Questions

What is the primary benefit of minifying CSS files?

Improved readability of the CSS code.

Enhanced security for the website.

Faster website loading times.

Correct!

Better cross-browser compatibility.

What attribute should you add to preload an asset?

`load="reload"`

`rel="preload"`

Correct!

```
rel="load"
```

```
rel="pre"
```

Which one of the following options is recommended for CSS optimization?

Writing complex CSS selectors.

Having multiple complex animations.

Loading multiple fonts simultaneously.

Removing unnecessary styles.

Correct!

Navigated to What Are Some Techniques for Improving CSS Performance?