

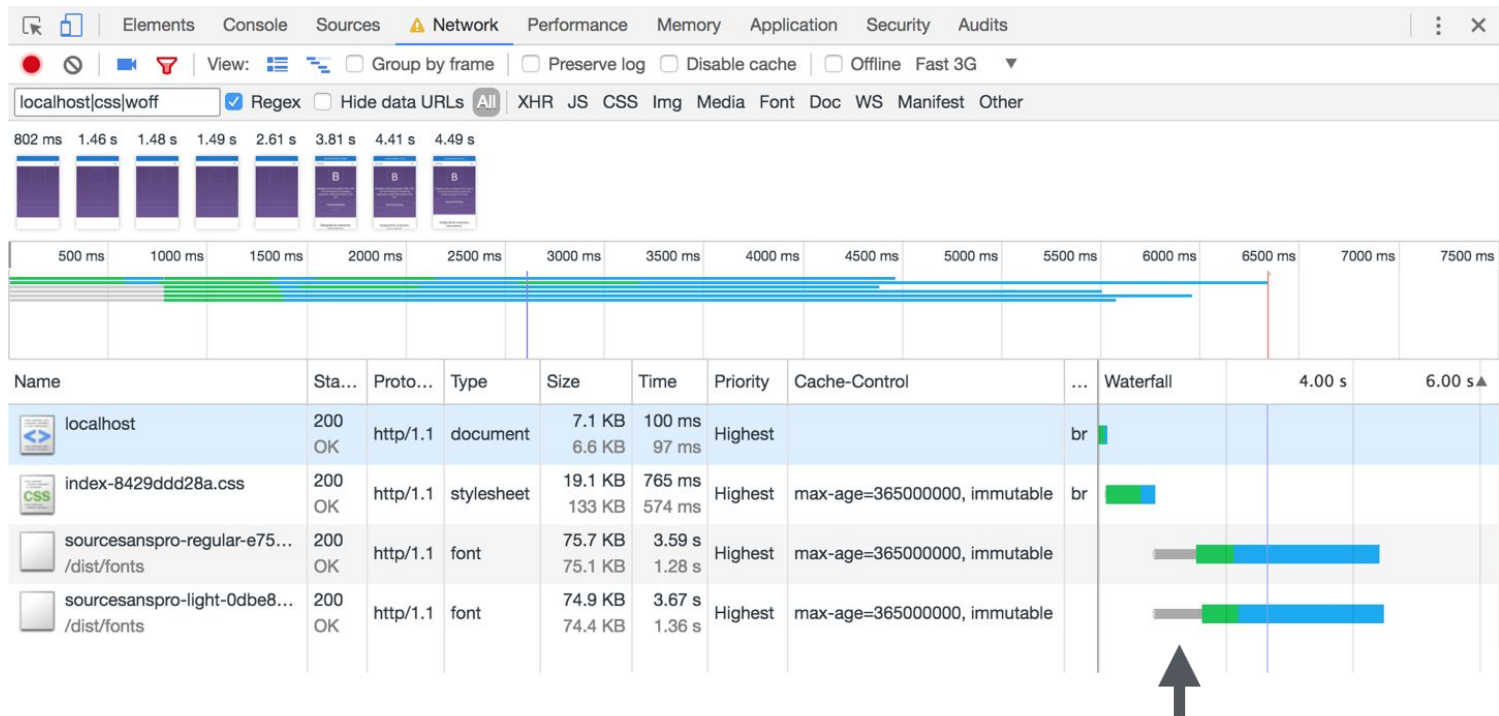
# **CODE CLASS RESOURCE HINTS**

***“Resource Hints are  
Performance freebies”***

— Harry Roberts ([@csswizardry](#))



# PROBLEM



files are requested **after** browser encounters reference

# SOLUTION

```
<link rel="{ method }"  
      href="{ resourceUrl }">
```

# <link rel="dns-prefetch" href="https://mycdn.com">

## Resource Hints: dns-prefetch 📄 - WD

Usage

Global

% of all users

74.38% + 0.12% = 74.5%

Gives a hint to the browser to perform a DNS lookup in the background to improve performance. This is indicated using `<link rel="dns-prefetch" href="http://example-domain.com/">`

Current aligned	Usage relative	Date relative	Show all							
IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet	
			49							
			63		10.2					
			64		10.3					4
11	16	58	65	11	11.2	all	64	11.8	6.2	
	17	59	66	11.1	11.3					
		60	67	TP						
		61	68							

# <link rel="preconnect" href="https://fonts.google.com">

## Resource Hints: preconnect 📄 - WD

Usage

% of all users

Global

65.7% + 1.63% = 67.32%

Gives a hint to the browser to begin the connection handshake (DNS, TCP, TLS) in the background to improve performance. This is indicated using `<link rel="preconnect" href="https://example-domain.com/">`

Current aligned

Usage relative

Date relative

Show all

IE

Edge

\*

Firefox

Chrome

Safari

iOS Safari

\*

Opera Mini

\*

Chrome for  
Android

UC Browser for  
Android

Samsung  
Internet

11

2

16

58

65

11

11.2

all

64

11.8

6.2

2

17

59

66

11.1

11.3

60

67

TP

61

68

# <link rel="preload" as="script" href="/js/hero.js">

## Resource Hints: preload 📄 - CR

Usage

% of all users

Global

59.97% + 0.55% = 60.52%

Using `<link rel="preload">`, browsers can be informed to prefetch resources without having to execute them, allowing fine-grained control over when and how resources are loaded.

Current aligned

Usage relative

Date relative

Show all

IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
			49						
			63		10.2				
			64		10.3				4
11	16	3 58	65	2 11	2 11.2	all	64	11.8	6.2
	17		66	11.1	11.3				
		59	67	TP					
		60							
		61	68						

# <link rel="prefetch" as="script" href="/js/gallery.js">

## Resource Hints: prefetch 📄 - WD

Usage % of all users  
Global 82.06%

Informs the browsers that a given resource should be prefetched so it can be loaded more quickly. This is indicated using `<link rel="prefetch" href="(url)">`

Current aligned Usage relative Date relative Show all

IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
			49						
			63		10.2				
			64		10.3				4
11	16	58	65	11	11.2	all	64	11.8	6.2
	17	59	66	11.1	11.3				
		60	67	TP					
		61	68						



**<link rel="preload" as="script" href="/js/hero.js">**

**prefetch**

**audio**

**document**

**embed**

**fetch**

**font**

**image**

**object**

**script**

**style**

**track**

**worker**

**video**

# <link rel="prerender" href="/next-page">

## Resource Hints: prerender - WD

Usage  % of  
Global 65.6%

Gives a hint to the browser to render the specified page in the background, speeding up page load if the user navigates to it. This is indicated using `<link rel="prerender" href="(url)">`

Current aligned Usage relative Date relative Show all

IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
			49						
			63		10.2				
			64		10.3				4
11	16	58	65	11	11.2	all	64	11.8	6.2
	17	59	66	11.1	11.3				
		60	67	TP					
		61	68						



## Cookies op Trouw

Trouw.nl gebruikt cookies en vergelijkbare technologieën ("cookies") onder andere om u een optimale gebruikerservaring te bieden.

JA, IK ACCEPTEEER COOKIES

Ook kunnen we hierdoor het gedrag van bezoekers vastleggen en analyseren en daardoor onze website verbeteren. Cookies van onszelf en van derden kunnen worden gebruikt om advertenties te tonen en artikelen aan te bevelen op Trouw.nl die aansluiten op uw interesses. Derden kunnen uw internetgedrag volgen en kan gebruikt worden om op sites van derden relevante advertenties te tonen. Cookies van derde partijen maken daarnaast mogelijk dat u informatie kunt delen via social media zoals Twitter en Facebook. Meer informatie hierover vindt u in ons cookie-statement.

KLANTENSERVICE  
Bel: 088-056 1561

SELF SERVICE  
[trouw.nl/service](https://trouw.nl/service)

DIGITALE KRANT  
[krant.trouw.nl](https://krant.trouw.nl)

Elements Network Console Sources Performance Memory Application

```
<!DOCTYPE html>
<html lang="nl-NL" class="fonts-loaded">
  <#shadow-root (open)>
    <head>
      <title>Cookies op Trouw | Trouw</title>
      <meta name="viewport" content="width=device-width,initial-scale=1">
      <style>...</style>
      <link rel="stylesheet" href="/dist/main-c0593ebba8.css">
      <script>...</script>
      <style>@media print {#ghostery-purple-box {display:none !important}}</style>
      <script src="/dist/vendor/fontfaceobserver.js" async></script>
      <link rel="dns-prefetch" href="//images0.persgroep.net">
      <link rel="dns-prefetch" href="//images1.persgroep.net">
      <link rel="dns-prefetch" href="//images2.persgroep.net">
      <link rel="dns-prefetch" href="//images3.persgroep.net">
      <link rel="dns-prefetch" href="//images4.persgroep.net">
    </head>
    <body itemscope="itemscope" itemtype="http://schema.org/WebPage">
      <h1 class="ally-only">Trouw</h1>
      
      <div class="modal-overlay">
        <div class="modal_wrapper">...</div> == $0
      </div>
    </body>
  </html>
```

html.fonts-loaded body div.modal-overlay **div.modal\_wrapper**

Styles Event Listeners DOM Breakpoints Properties Accessibility ADT Properties

Filter :hov .cls +

element.style { }

@media screen and (min-width: 48em)

.modal\_wrapper {  
 top: 5%;  
 bottom: 40px;  
}

.modal\_wrapper {  
 margin: 16px;  
}

.modal-overlay, .modal\_wrapper {  
 position: fixed;  
 top: 0;  
 right: 0;  
 bottom: 0;  
 left: 0;  
}

a, abbr, acronym, address, applet,  
article, aside, audio, b, big,  
blockquote, body, canvas, caption, center, cite, code, dd, del,  
details, dfn, div, dl, dt, em, embed, fieldset, figcaption,  
figure, footer, form, h1, h2, h3, h4, h5, h6, header, hgroup,  
html, i, iframe, img, ins, kbd, label, legend, li, main, mark,  
menu, nav, object, ol, output, p, pre, q, ruby, s, samp,

main-c0593ebba8.css:1

position 40.141  
margin 16  
border -  
padding -  
745 x 690.859  
16  
40

Filter ☐ SI

border-bottom-color  
border-bottom-style  
border-bottom-width  
border-image-outset  
border-image-repeat  
border-image-slice  
border-image-source  
border-image-width  
border-left-color  
border-left-style

Mail

Deleted Messages

Alarm25

Application24

Breaking bad

Capacitor3

Application14

Card26

Driver6

Microchip14

System15

Hard drive23

Interface37

Replied messages

Bus10

Interface8

Port16

Bandwidth11

Bus9

Hard drive9

Firewall14

Application26

Inbox

COMPOSE

Contacts

Settings

Log out

Today

Nova\_Sipes19@yahoo.com

Cross-group bi-directional archive

21:03

Ellis.Bednar@gmail.com

Cross-group bandwidth-monitored complexity

09:03

Shanel

Operative maximized open system

05:03

Last week

Xavier.Spencer@yahoo.com

Persevering radical customer loyalty

Last Saturday

Shaniya.Beer@yahoo.com

Synergized cohesive Graphic Interface

Last Wednesday

Elements

Console

Sources

Network

Performance

Memory

Application

<!--StartMail--><!--Title--><!--<meta name="viewport" content="width=device-width, initial-scale=1"><meta name="apple-mobile-web-app-title" content="StartMail"><meta name="apple-mobile-web-app-capable" content="yes"><meta name="apple-mobile-web-app-status-bar-style" content="default"><meta name="theme-color" content="#79a5d9"><link rel="manifest" href="/manifest.bfe27c7...json"><link rel="icon" type="image/png" sizes="32x32" href="/static/img/icons-238be53/favicon-32x32.png"><link rel="icon" type="image/png" sizes="16x16" href="/static/img/icons-238be53/favicon-16x16.png"><link rel="shortcut icon" href="/static/img/icons-238be53/favicon.ico"><link rel="prefetch" href="/mail.js"><link rel="prefetch" href="/0.e7c92f4...hot-update.js"><link rel="prefetch" href="/contacts.js"><link rel="prefetch" href="/1.e7c92f4...hot-update.js"><link rel="prefetch" href="/settings.js"><link rel="prefetch" href="/2.e7c92f4...hot-update.js"><link rel="prefetch" href="/rich-text-editor.js"><link rel="prefetch" href="/3.e7c92f4...hot-update.js"><style type="text/css">...</style><style type="text/css">...</style><script type="text/javascript" charset="utf-8" async src="/mail.js"></script><style type="text/css">...</style><style type="text/css">...</style><style type="text/css">...</style><style type="text/css">...</style><style type="text/css">...</style><style type="text/css">...</style><style type="text/css">...</style><style type="text/css">...</style><style type="text/css">...</style><style type="text/css">...</style><style type="text/css">...</style></head>...<body>...<noscript>...</noscript><div>...</div><script>...</script><script type="text/javascript" src="/app.js"></script></body></html>

htmlbody

Animations

Console

What's New

Network conditions

Rendering

Remote devices

top

Filter

Default levels

Group similar

[HMR] Waiting for update signal from WDS...

vue-devtoolsDetected Vue v2.5.13

Registration succeeded.

# HOW TO TEST?

The screenshot shows a web browser window in incognito mode. The address bar is empty, and the page displays the "You've gone incognito" message. Below this message, there are two columns of information: "Chrome won't save the following information:" and "Your activity might still be visible to:". The Chrome DevTools Network tab is open, showing a list of requests. The first request, "roboto-regular.woff2", is selected. A context menu is open over this request, showing various options like Method, Status, Protocol, Scheme, Domain, Remote Address, Type, Initiator, Cookies, Set Cookies, Size, Time, Priority, Connection ID, Response Headers, and Waterfall. The "Priority" option is highlighted in blue.

**You've gone incognito**

Now you can browse privately, and other people who use this device won't see your activity. However, downloads and bookmarks will be saved. [Learn more](#)

Chrome **won't** save the following information:

- Your browsing history
- Cookies and site data
- Information entered in forms

Your activity might still be visible to:

- Websites that you visit
- Your employer or school
- Your Internet service provider

**Network**

Filter:  ☐ Hide data URLs ☐ XHR ☐ JS ☐ CSS ☐ Img ☐ Media ☐ Font ☐ Doc ☐ WS ☐ Manifest ☐ Other

Name	Status	Protocol	Type	Initiator	Size	Time	Priority	Cache-Control
roboto-regular.woff2 resources/roboto	200 OK	chrome	font	(index) Parser	0 B 61.9 KB	8 ms 8 ms	Highest	no-cache

8 requests | 0 B transferred | Finish: 51 ms | DOMContentLoaded: 44 ms | Load: 56 ms

- Method
- ✓ Status
- ✓ Protocol
- Scheme
- Domain
- Remote Address
- ✓ Type
- ✓ Initiator
- Cookies
- Set Cookies
- ✓ Size
- ✓ Time
- ✓ **Priority**
- Connection ID
- Response Headers
- Waterfall

# EXERCISES

[github.com/voorhoede/code-class-resource-hints](https://github.com/voorhoede/code-class-resource-hints)

# EXERCISE 1

Use a Resource Hint  
to speed up the image loading  
on the current page.

# EXERCISE 2

Use a Resource Hint to improve  
time to First Contentful Paint (FCP)  
of the current page.



# EXERCISE 3

Use a Resource Hint to improve  
time to First Contentful Paint (FCP)  
of the *next* page.

# FURTHER READING



re:loading

Follow



Applause from Paul Kinlan, TJ Holowaychuk, and 1,297 others



Addy Osmani

Eng. Manager at Google working with Chrome & DevRel- Creator of TodoMVC, Yeoman, Material Design Lite, Critical - Passionate about web performance.

Mar 27, 2017 · 12 min read

## Preload, Prefetch, & Priorities in chrome



<https://medium.com/reloading/preload-prefetch-and-priorities-in-chrome-776165961bbf>



**DE VOORHOEDE**  
front-end developers