



NEW KIDS IN BROWSERLAND

🔌 Supercharge your web apps
using the new browser APIs ⚡

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That swag guy! [devswag.io](#)

BRACE YOURSELF

NEW APIS ARE COMING!



SNEAK PEEK

- Intersection Observer API
- Credential Management API
- Network Information API
- Web Share API
- Device Memory API
- Payment Request API



LET'S START!



INFINITE SCROLLING

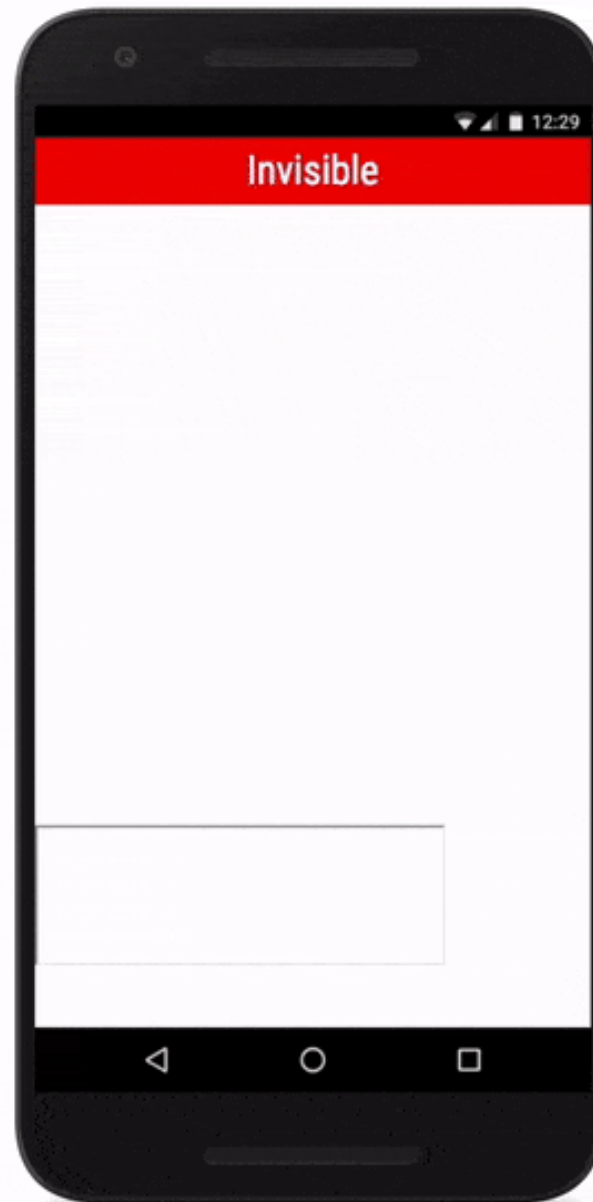
LAZY LOADING



INTERSECTION OBSERVER API

This API lets you know when an observed element enters or exits the browser's viewport (user's visible area of a web page).

Demo





Thresholds =
[0, 0.25, 0.5,
0.75, 1]

USE CASES

- Lazy Loading
- Reporting of visibility of advertisements in order to calculate ad revenues
- Better Navigation Bar
- Check which feed cards are seen by user to avoid showing duplicate cards

Browser Support

IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
			⁴ 68						
			⁴ 69						4
11	17	62	⁴ 70	12	11.4	all	69	³ 11.8	7.2
	18	63	⁴ 71	TP	12				
		64	⁴ 72						
			⁴ 73						




<https://caniuse.com/#feat=intersectionobserver>



Who are You ?



No not me,you!



Are you deaf ?




I'm not blind.You blind.




Yu.



Yes,I'm Yu.



No,Yu is blind.



That is what I just said!

MemeCenter.com

CRAZY

CREDENTIAL MANAGEMENT API

This API lets a website store and retrieve password credentials.

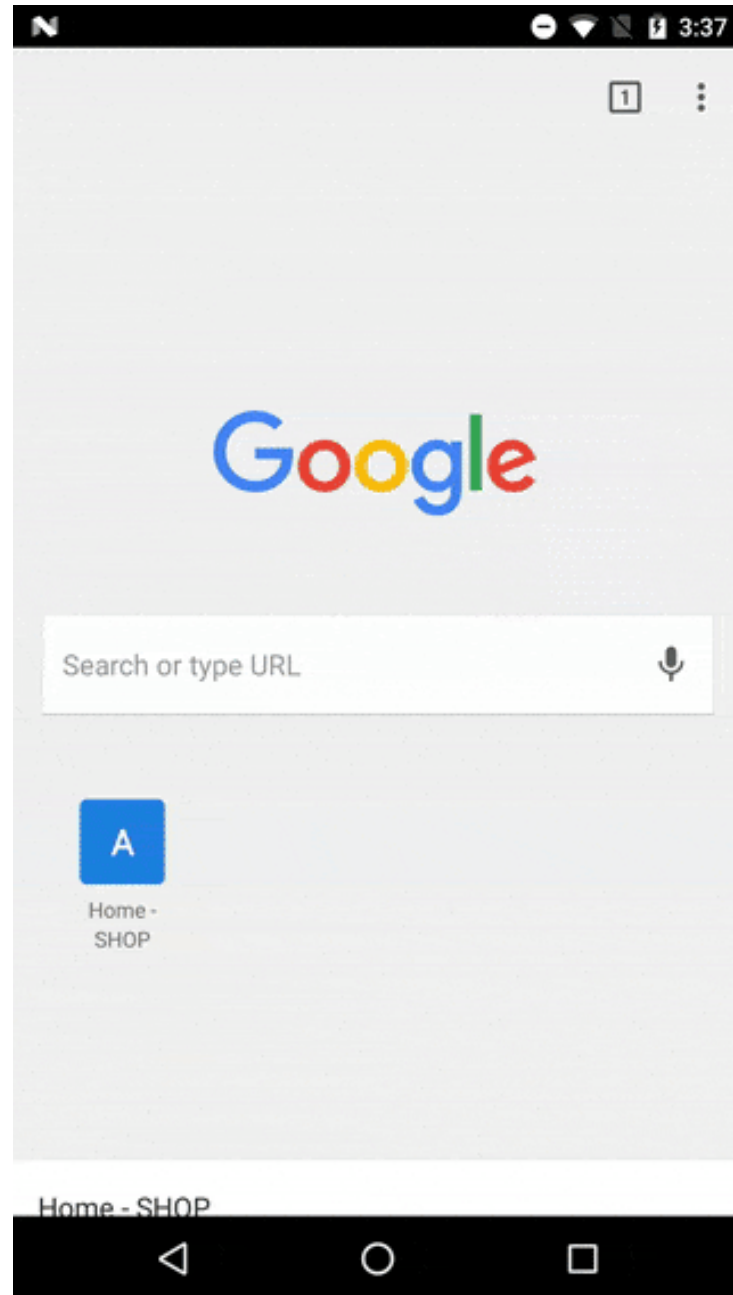


API Spec

IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
			68						
			69						4
11	17	62	70	12	11.4	all	69	11.8	7.2
	18	63	71	TP	12				
		64	72						
			73						



Demo



USE CASES

- Removes friction from sign-in flows
- One tap sign-in with account chooser
- Stores and syncs credentials



Browser Support

IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
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<https://caniuse.com/#feat=credential-management>



I LOVE HOW YOUR WEBSITE

IS IMPOSSIBLE TO READ ON MY SMARTPHONE

[GitPitch @ github/swapagarwal/new-kids-in-browserland]

NETWORK INFORMATION API

This API lets you retrieve the current network type and monitor for network type changes.



EXAMPLE

Write connection-aware components, rendering different elements for different speeds. For example, a component in a news article might output:

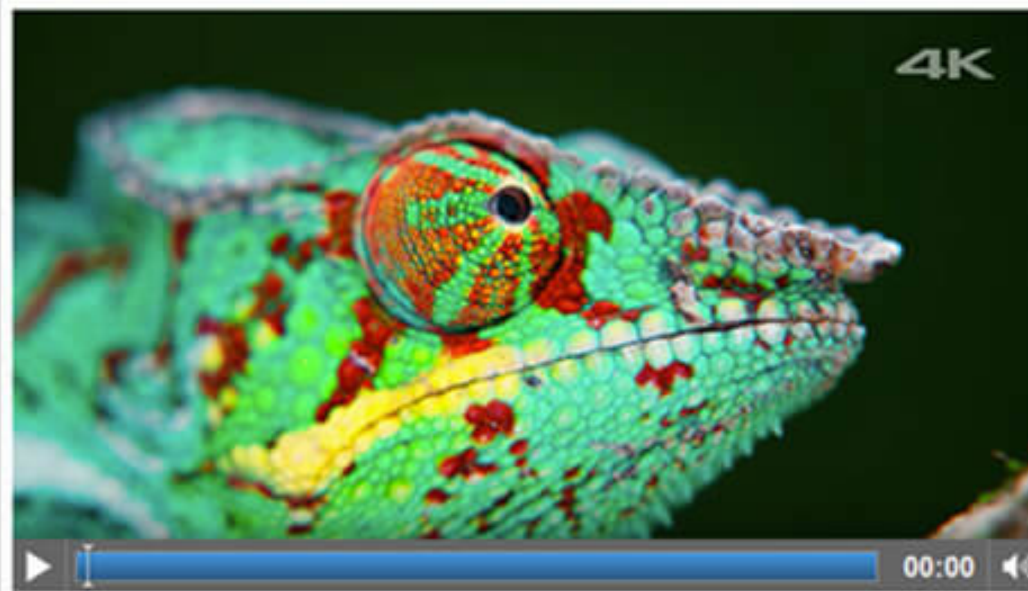
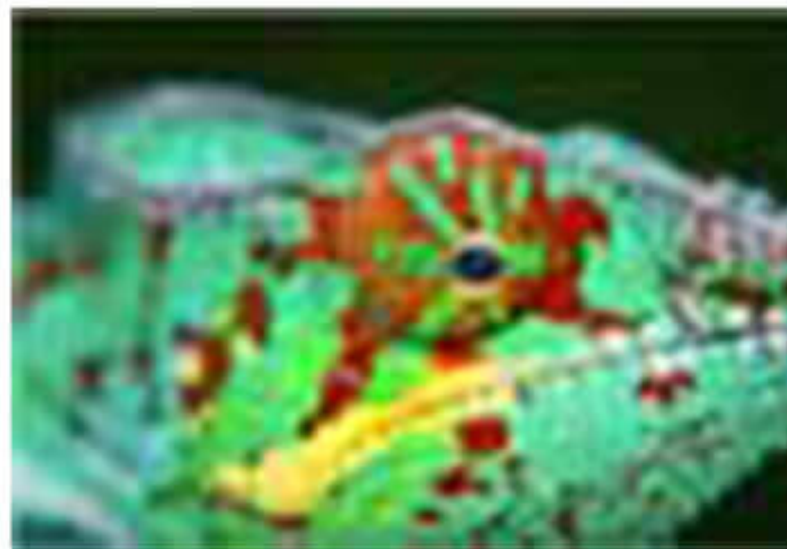
- offline: a placeholder with alt text
- 2g / reduced data mode: a low-resolution image, ~30kb
- 3g: a high resolution retina image, ~200kb
- 4g: a HD video ~1.8MB





Panther Chameleon

(Image currently not available)



Preload Assets



```
let preloadVideo = true;
var connection = navigator.connection || navigator.mozConnection || navigator.webkitConnection;

if (connection) {
  if (connection.type === 'cellular') {
    preloadVideo = false;
  }
}
```

Monitor



```
var connection = navigator.connection || navigator.mozConnection || navigator.webkitConnection;
var type = connection.type;

function updateConnectionStatus() {
  console.log("Connection type changed from " + type + " to " + connection.type);
}

connection.addEventListener('change', updateConnectionStatus);
```

Browser Support

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		64	⁴ 72						
			⁴ 73						

<https://caniuse.com/#feat=netinfo>



A photograph of a road sign that reads "HALFWAY". The sign is white with a black border and is mounted on two black poles. In the background, a dark-colored car is driving away on a road, and a bicycle has fallen onto the grassy shoulder next to it. The scene is set against a backdrop of green trees and a blue sky with white clouds.

HALFWAY

HOW DO YOU ADD SHARING FUNCTIONALITY ON A WEBSITE TODAY?



WEB SHARE API

This API offers a simple way to allow websites to invoke the native sharing capabilities of the host platform.

Code Sample

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Demo



Browser Support

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			73						

<https://caniuse.com/#feat=web-share>



LET'S TALK ABOUT MEMORY



A photograph of a crowded nightclub or party. In the center, a young man with curly brown hair and a white t-shirt with 'BILLABONG' on it looks directly at the camera with a surprised expression. He is surrounded by other people, mostly young adults, in a dimly lit environment with warm lighting. The text 'LOW MEMORY DEVICES' is overlaid at the top in large, bold, white letters with a black outline.



















LOW MEMORY DEVICES

ARE WIDELY USED IN EMERGING MARKETS

DEVICE MEMORY API

This API returns the amount of device memory (RAM) on a user's machine in gigabytes.

Code Sample

														
									 		 			
Basic support		63	?	?	?	50	?	63	63	?	?	50	?	?





















USE CASES

- Serve a "lite" app to users on low-end devices
- Add context to metrics



Browser Support

														
									 		 			
Basic support		63	?	?	?	50	?	63	63	?	?	50	?	?

Reference



Typical Checkout Form

Coin (sh)op

Step 1 of 2 - Billing & Shipping Information

Billing Information

Please enter the billing address as it appears on your credit card statement.

* First Name:

Middle Initial:

* Last Name:

* Address 1:

Address 2:

Address 3:

* City:

* County:

* Postcode:

Contact Information

* Primary phone:

Evening phone:

Mobile phone:

☐ Please send me email updates

Shipping Options

☐ Please send me email updates including discounts and special coin offers

☒ Ship to a new address

☐ Ship to billing address

☐ Ship to a store

* Address 1:

Address 2:

Address 3:

* City:

* County:

* Postcode:

* Postcode:

2nd Business Day - £0

[Shipping policy](#)

Step 2 of 2 - Payment Information

Credit Card Information

☐ I have a gift card to enter

* Select card type

* Card number:

* Name on card:

* CVV:

Year of birth

Select a payment plan

Your order summary

Please review your Order Summary below before placing your order

[Shopping bag \(1 item\)](#)

[Billing address](#)

[Contact information](#)

[Shipping address](#)

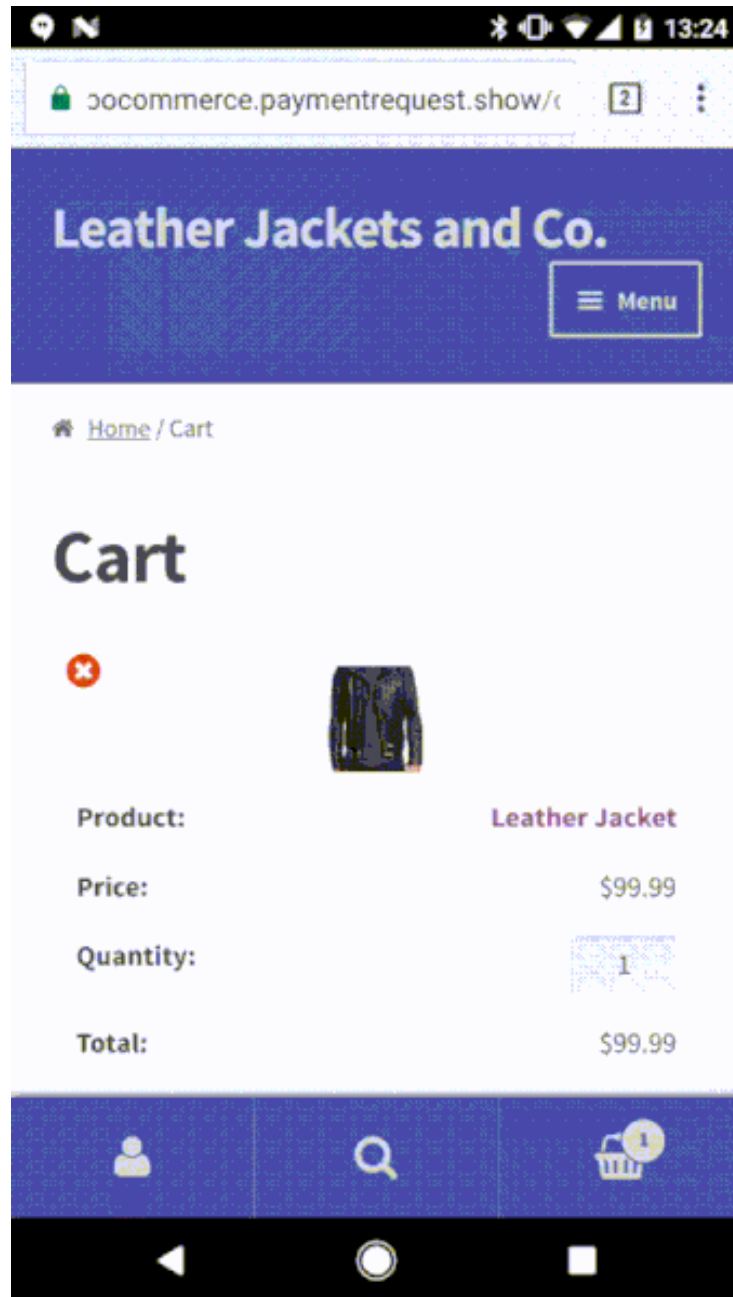
[Shipping method](#)

Place order

PAYMENT REQUEST API

This API is meant to reduce the number of steps needed to complete a payment online, potentially doing away with (long) checkout forms.

Demo



USE CASES

- Fast checkout experience
- Consistent error handling
- Express checkout



Browser Support

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<https://caniuse.com/#feat=payment-request>



RECAP

- A modern solution to handle scroll events (Intersection Observer API)
- Keep login simple for your users (Credential Management API)
- Make your website network-responsive (Network Information API)



RECAP

- Sharing made ridiculously easy (Web Share API)
- Tailor content dynamically based on device memory (Device Memory API)
- Buy seamlessly on the web (Payment Request API)



fin.

