



THE PROGRESSION OF WEB APPS

GDG DEVFEST BELGIUM, 23RD OCTOBER 2016



THE PROGRESSION OF WEB APPS

GDG DEVFEST BELGIUM, 23RD OCTOBER 2016

HTML 5 TEST

HTML 5 TEST how well does your browser support html5?

your browser other browsers compare news device lab about the test

YOUR BROWSER SCORES **400** OUT OF 555 POINTS

You are using Safari 9.0.1 on OS X El Capitan 10.11

JavaScript Diagrams
Click here for GoJS

Save results Compare to... Share Donate

semantics multimedia

Parsing rules 5	Video 35
<!DOCTYPE html> triggers standards mode Yes ✓	video element Yes ✓

salonhub

salonhub winsum

agenda kassa recepten klanten team voorraad rapportage

dinsdag 9 augustus

	hanneke	chantal	john	notitie
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13				
5	13:00 Indraaien: Permanent & Knippen & harsevoort	13:00 Knippen-handdrogen: Knippen Dar joke van dijk	12:20 Knippen: Basis Kleuren & Knippen fam poot	
10				
15				
20				
25				
30				
35		13:30 Inzetten: Creatief Kleuren zonder k G Kauw		
40				
45	13:45 Spoelen: Permanent & Knippen & harsevoort			
50				
55				
14				
5	14:05 Knippen: Permanent & Knippen & harsevoort			
10				
15				
20				
25	14:25 Watergolf indraaien: Permanent & harsevoort			
30				
35				

Carrier 6:56 PM

kapper



Salonlab Zuidlaren
De Millystraat 7, 9471 AG Zuidlaren
Tel. 050 850 3251

+ Maak een afspraak

Salon Kaart Afspraken Over

THE PROGRESSION OF WEB APPS

THE PROGRESSION OF WEB APPS



PROGRESSIVE WEB APPS



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PROGRESSIVE

RESPONSIVE

CONNECTIVITY INDEPENDENT

APP-LIKE

FRESH

SAFE

DISCOVERABLE

RE-ENGAGEABLE

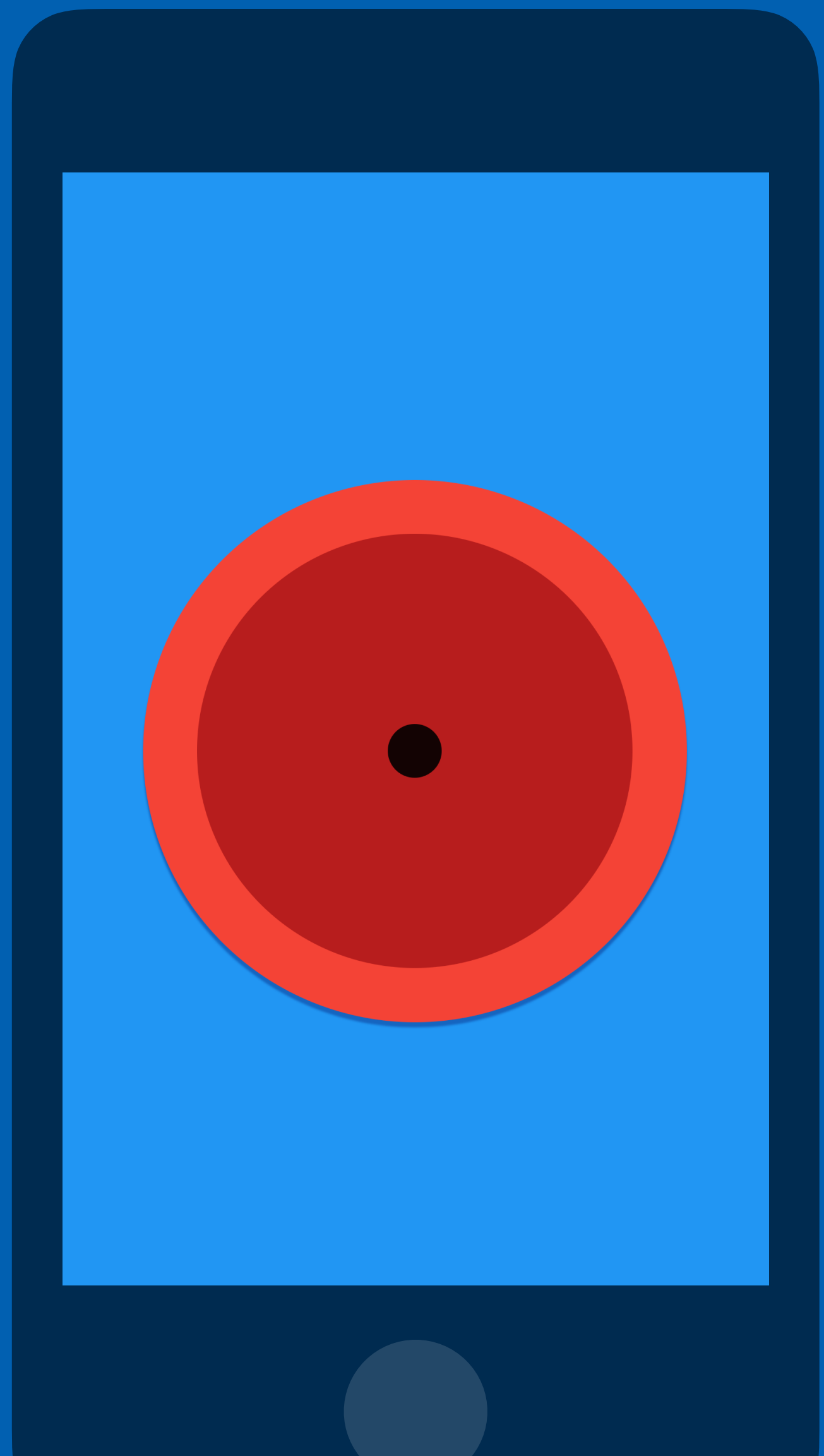
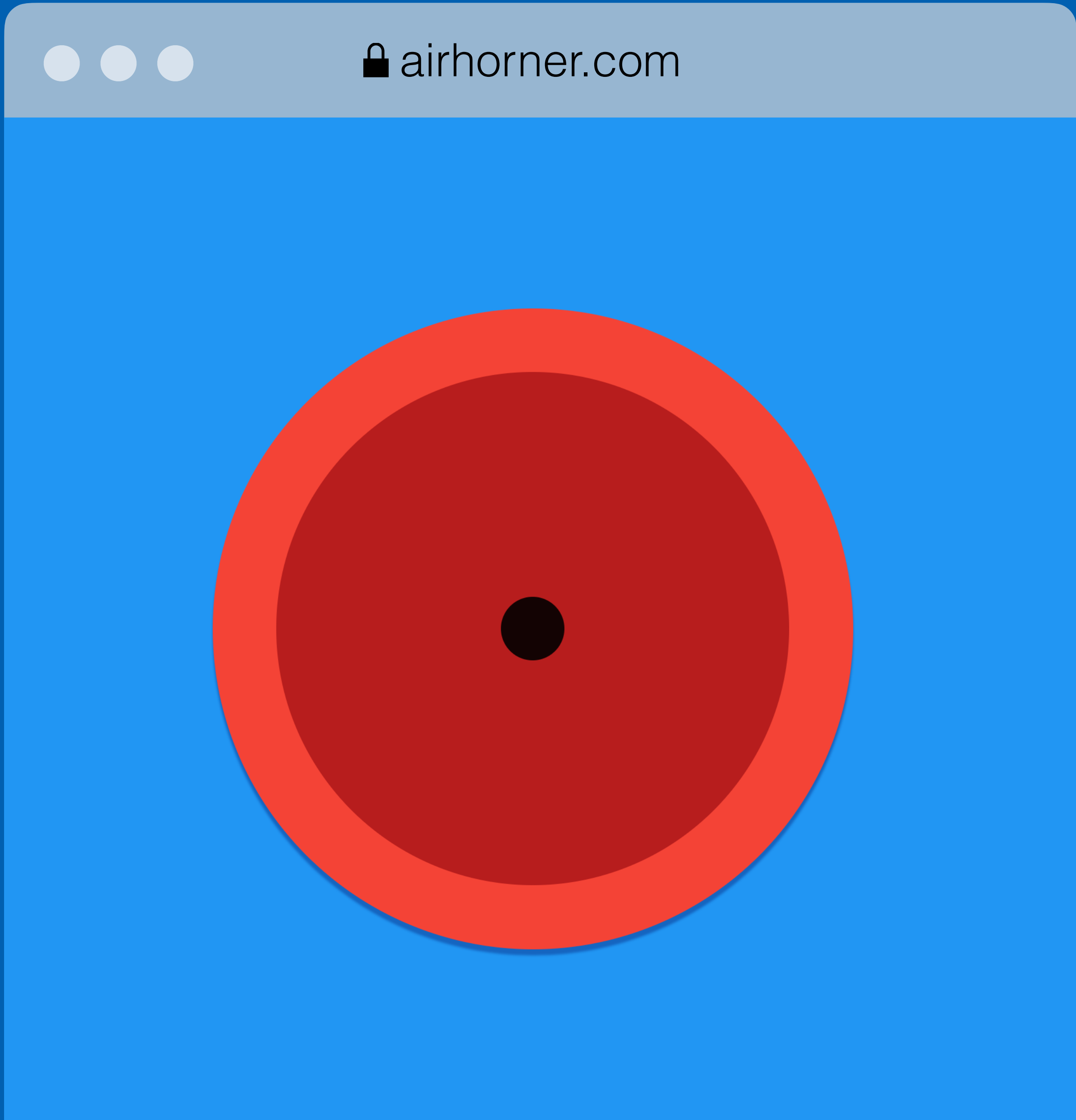
INSTALLABLE

LINKABLE

PROGRESSIVE

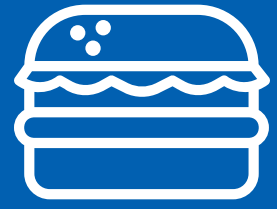
WEB APP

RESPONSIVE



CONNECTIVITY INDEPENDENT





MENU

Where is my navigation?

Click on the hamburger menu to get access to all of the navigation options.

APP-LIKE

APP-LIKE

FRESH



FRESH



SAFE

DISCOVERABLE



Hi there! I'm a Web App!

RE-ENGAGE



This is a test pushmessage on acceptance.

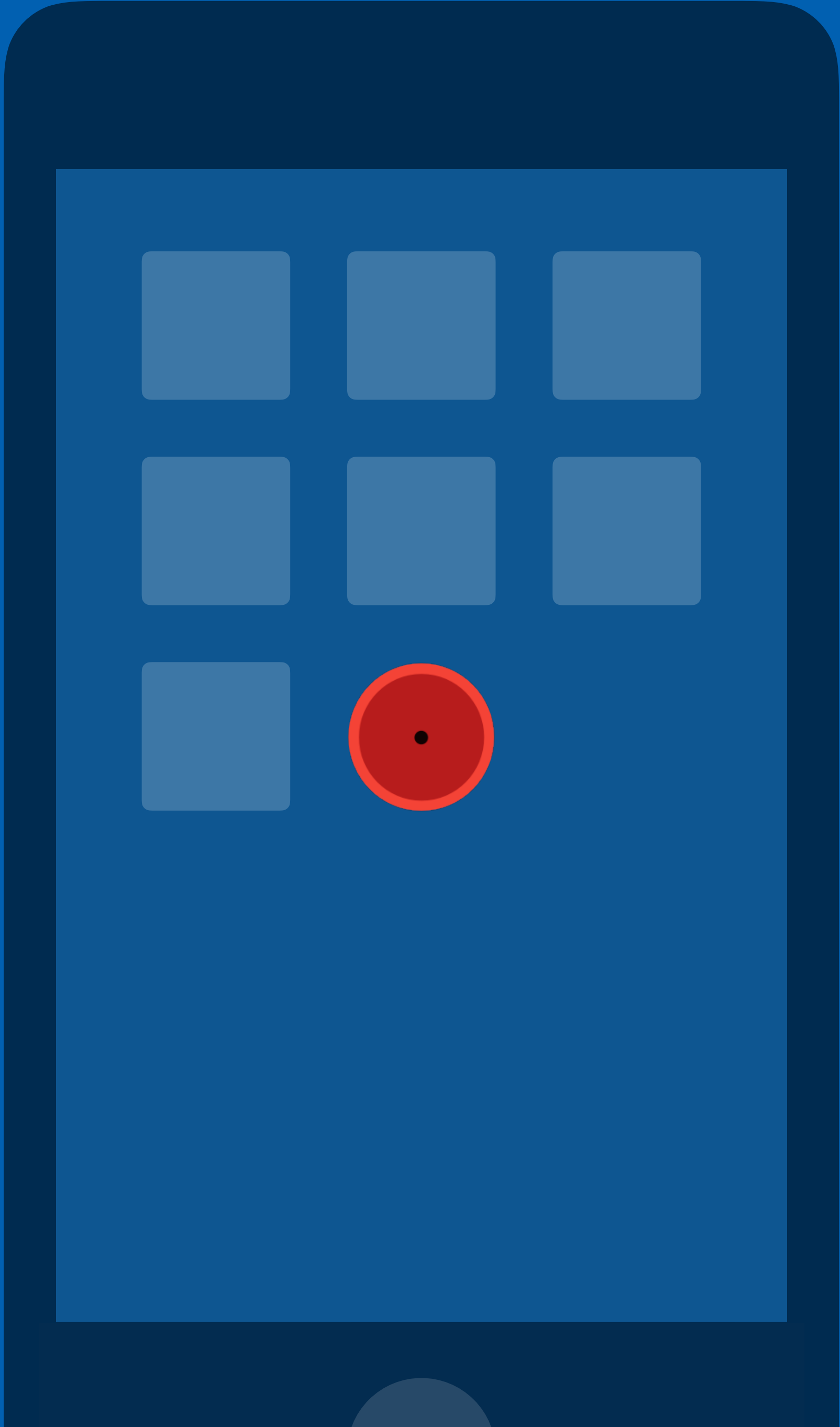


You have 4 app updates available



Someone you hardly know posted what he just ate

INSTALLABLE



LINKABLE

🔍 Airhorner

🔍 Airhorner

no results found

<https://airhorner.com>

THIS IS NOT A NEW IDEA



“

The full Safari engine is inside of iPhone.
And so, you can write amazing Web 2.0 and
Ajax apps that look exactly and behave exactly
like apps on the iPhone. And these apps can
integrate perfectly with iPhone services.

— Steve Jobs, 2007



“ The fundamental problem on the iPhone is not Apple’s App Store approval policies, but the iPhone developers’ arrogant disdain for Web technologies.

I reviewed the apps I have on my iPhone, and most can be released as a Web app *right now*.

— Peter Paul Koch, 2009

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— Peter Paul Koch, 2009



✓ **PROGRESSIVE**

✓ **RESPONSIVE**

✓ **CONNECTIVITY INDEPENDENT**

✓ **APP-LIKE**

✓ **SAFE**

✓ **DISCOVERABLE**

✓ **INSTALLABLE**

✓ **LINKABLE**

LOTS OF UGLY HACKS

LOTS OF BROWSER QUIRKS

NON-STANDARD API'S

NO DEVICE API'S

BUILDING NATIVE APPS USING WEB TECHNOLOGY

WHY?

**WE KNOW HTML,
CSS AND JAVASCRIPT**

CROSS PLATFORM DEVELOPMENT

GET ACCESS TO NATIVE API'S

THE APP STORE

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TweetDeck

Home @html5test

Marco Arment @marcoarment now
It has taken every ounce of willpower not to buy giant electrostatic speakers for the living room while @tiffanyarment is away for a week.

W3C retweeted

Sarven Capadisi @csarven 16m
I had to get my parent's signature to apply for my city's FreeNet. I used Lynx to access the free 'library of Babel'

W3C @w3c
25y ago, the world changed - forever! How did you first come across the Web? How has the Web impacted you? Do tell! w3.org/blog/2016/08/2...

rem retweeted

Pointless Letters @pointlesslettrs 12h
Magnificent pic.twitter.com/lq2KXlkyKg

Evening @TPEExpressTrains - 'Guy' on the seat opposite me is wearing stockings and a dress - what is that all about ??

TPE Customer Assist @TPEassist
@gaz_cocks Probably something to do with it being the 21st century now. As long as they have a ticket, everyone is welcome on our trains *ZS

rem @rem 1m
If you want to learn more about these development tools, I'm running a workshop: 2016 #conf.org/workshops#debu

@ Mentions

CSS Day Conference @cssdayconf 9d
Let @html5test explain you everything about <noscript> in this #cssday video: vimeo.com/176436151

Slides: speakerdeck.com/nielsleenheer/...

in reply to HTML5test

David Storey @dstorey 9d
@html5test I'm guessing it is a Ford?

in reply to HTML5test

David Storey @dstorey 9d
@html5test the multi-year process of approving things for airlines meant it was yeas old before anything shipped.

in reply to HTML5test

David Storey @dstorey 9d
@html5test almost as old as the Opera browsers that were made for seat backs of planes.

in reply to HTML5test

Steve Brandt @steve_brandt 10d
@html5test that's a volvo, right.

in reply to HTML5test

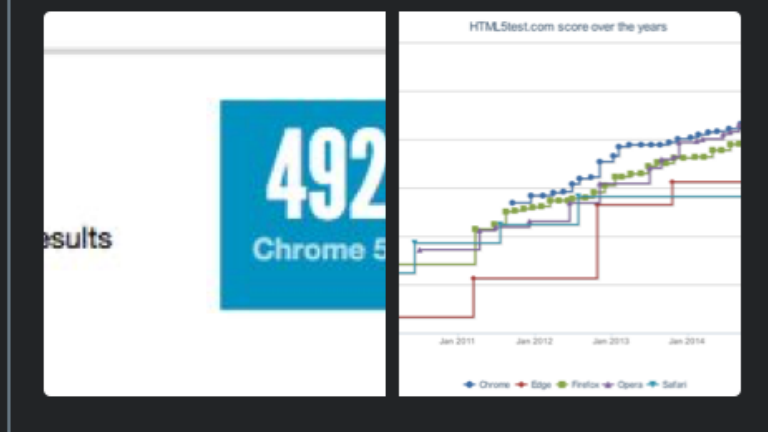
Jeroen Heijmans @jeroenheijmans 10d
@html5test @codepo8 96%, wow! ;-)

Notifications @html5test

bee8bit liked your Retweet

Nolan Lawson @nolanlawson 2d
For the first time ever, a Microsoft browser has surpassed Firefox on HTML5Test. It's a good time to be a web dev!

David Storey @dstorey
Edge14 (released tomorrow) is now right up there with Firefox on @html5test. 460 points. (473 with flags) pic.twitter.com/XLTCOTFqC1



Sidekick Digital followed you

Sidekick Digital @sidekickdigi
We're a creative digital agency who makes digital, more human. We're based in the heart of Norfolk, with offices in King's Lynn and Norwich.

in reply to Ryan Buckwalter

David Storey @dstorey 2d
@BucksterMcgee @nolanlawson @html5test standing up a new browser with so many new sub systems is difficult, but making huge progress

html5te

OpenS
Wonde
suppo
followi

SDK.c
html5te
线工具
HTML
行测试
工具。

Marin
For the
by Mic
@html5
pic.twi

current
Score
492
492
460
450


in reply

andre
@stsha
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HTML5
though

in reply




Slack

Fronteers 
● nielsleenheer







CHANNELS (13)

- # activiteitencommissie
- # conference
- # evenementen
- # fronteers
- # watercooler


DIRECT MESSAGES (340) 


- ♥ slackbot
- nielsleenheer (you)


#activiteitencommissie
23 members | [Add a topic](#)


   |   


August 3rd


 **meta** 8:05 AM
@hdv zo simpel kan het zijn he? :-)



 **hdv** 8:05 AM
ervanuitgaande dat er 10% niet komt (is dat realistisch?) kunnen die gewoon allemaal komen 😊


 **meta** 8:06 AM
ja, zal ik de mailing doen?
dan vraag ik het gewoon en komen de afmeldingen vanzelf



 **hdv** 8:07 AM
ah yea dat is goed, hoe ver tevoren doe je dat?
een week of?

 **meta** 8:08 AM
een paar dagen
kan ook nu al
want je hebt al een wachtlijst
als je zelf mailt kunnen ze ook replyen
@hdv doet @thomatronic de intro of heb je een voorbeeld voor sheets?

 **thomatronic** 9:03 AM
Ik ben d'rbij voor de MC'ing!

 **hdv** 9:19 AM

ah ja, maar iets langer wachten waarschijnlijk wel goed, want dan hebben mensen al meer zekerheid over hun planning

 **hdv** 5:45 PM
thanks, meta, voor de voorbeeldtekst!

 | 





```
data.js — /Users/niels/Projects/HTML5test
HTML5test
├── dist
├── private
├── src
│   ├── assets
│   ├── backend
│   ├── css
│   ├── fonts
│   ├── images
│   └── scripts
│       ├── 5
│       ├── 6
│       ├── 7
│       └── 8
│           ├── data.js
│           ├── engine.js
│           ├── highcharts
│           ├── jquery
│           ├── base.js
│           ├── fullscreen.js
│           ├── reporting.js
│           ├── vendor
│           ├── .ignore
│           ├── .access
│           ├── .about.html
│           ├── .composer.json
│           ├── .donate.html
│           ├── .index.html
│           ├── .LICENSE
│           ├── .qr.html
│           └── .README.md
└── engine.js
    1
    2
    3   var tests = [
    4
    5       {
    6           id:    'semantics',
    7           name:  'Semantics',
    8           column: 'left',
    9           items: [
10               {
11                   id:    'parsing',
12                   name:  'Parsing rules',
13                   status: 'stable',
14                   items: [
15                       {
16                           id:    'doctype',
17                           name:  '<code>&lt;!DOCTYPE html&gt;</code> triggers standards mode'
18                           urls:  [
19                               [ 'w3c', 'http://www.w3.org/TR/html5/syntax.html#the-doc'
20                               [ 'whatwg', 'https://html.spec.whatwg.org/multipage/synt
21                           ]
22                       }, {
23                           id:    'tokenizer',
24                           name:  'HTML5 tokenizer',
25                           value: 3,
26                           urls:  [
27                               [ 'w3c', 'http://www.w3.org/TR/html5/syntax.html#parsing
28                               [ 'whatwg', 'https://html.spec.whatwg.org/multipage/synt
29                               [ 'mdn', '/Web/Guide/HTML/HTML5/HTML5_Parser' ]
30                           ]
31                       }, {
32                           id:    'tree',
33                           name:  'HTML5 tree building',
34                           value: 2,
```

JSHint Warning W033 - Missing semicolon. at line 2654 col 2

```
Browser.php - WhichBrowser
EXPLORER
update-chrome.php
BrowserId.php
Browser.php
Application.php
WHICHBROWSER
  Gps.php
  Media.php
  Mobile.php
  Pda.php
  Phone.php
  Printer.php
  Signage.php
  Tablet.php
  Television.php
  Application.php
  Bot.php
  Browser.php
  Device.php
  Engine.php
  Os.php
  Using.php
  Baidu.php
  BrowserId.php
  OperaMini.php
  Puffin.php
  UCBrowserNew.php
  UCBrowserOld.php
  Useragent.php
  Wap.php

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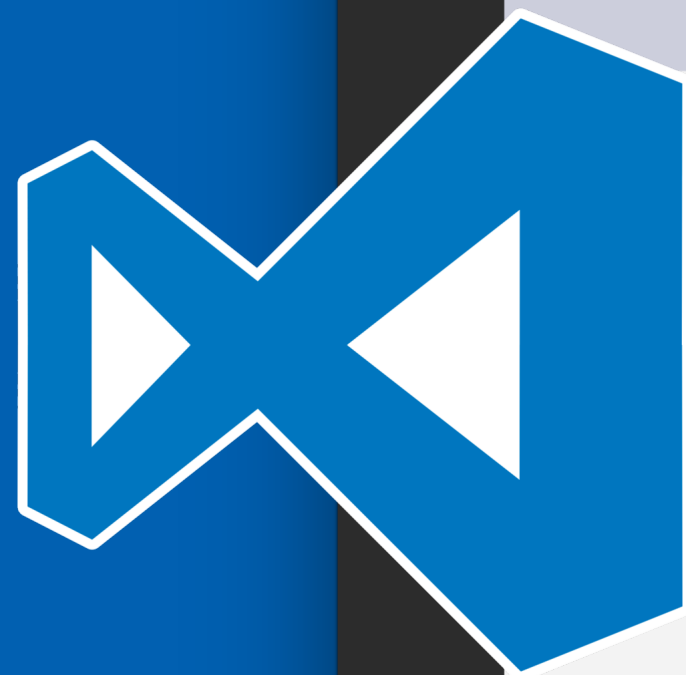
private function detectChrome($ua)
{
    if (preg_match('/:Chrome|CrMo|CriOS\/[0-9]/u', $ua) || preg_match('/Browser\/Chrome[0-9]/u', $ua)) {
        $this->data->browser->name = 'Chrome';
        $this->data->browser->type = Constants\BrowserType::BROWSER;
        $this->data->browser->stock = false;

        $version = '';
        if (preg_match('/:Chrome|CrMo|CriOS\/([0-9.]*)/u', $ua, $match)) {
            $version = $match[1];
        }
        if (preg_match('/Browser\/Chrome([0-9.]*)/u', $ua, $match)) {
            $version = $match[1];
        }
        $this->data->browser->version = new Version([ 'value' => $version ]);

        if (isset($this->data->os->name) && $this->data->os->name == 'Android') {
            $channel = Data\Chrome::getChannel('mobile', $this->data->browser->version->value);

            if ($channel == 'stable') {
                $this->data->browser->version->details = 1;
            } elseif ($channel == 'beta') {
                $this->data->browser->channel = 'Beta';
            } else {
                $this->data->browser->channel = 'Dev';
            }
        }

        /* Webview for Android 4.4 and higher */
        if (implode('.', array_slice(explode('.', $version), 1, 2)) == '0.0' && (preg_match('/:Chrome|CrMo|CriOS\/[0-9]/u', $ua) || preg_match('/Browser\/Chrome[0-9]/u', $ua))) {
            $this->data->browser->using = new Using([ 'name' => 'Chromium WebView', 'version' => $version ]);
            $this->data->browser->type = Constants\BrowserType::UNKNOWN;
            $this->data->browser->stock = true;
            $this->data->browser->name = null;
            $this->data->browser->version = null;
            $this->data->browser->channel = null;
        }
    }
}
```

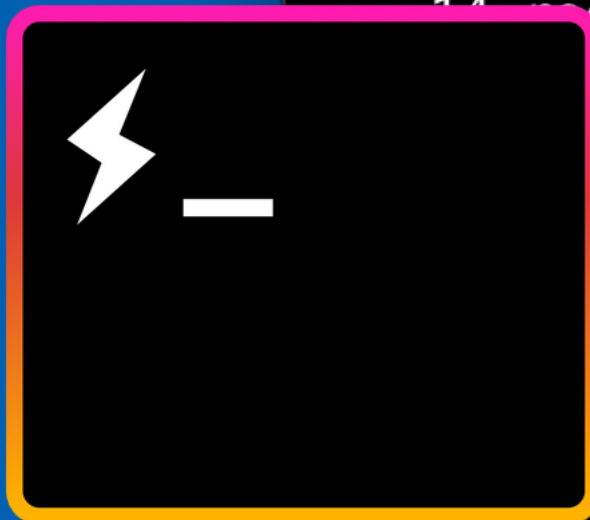




ssh

```
top - 14:44:11 up 173 days, 5:05, 1 user, load average: 0.06, 0.06, 0.07
Tasks: 124 total, 1 running, 123 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.8 us, 1.0 sy, 0.0 ni, 98.2 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
KiB Mem : 1838088 total, 36564 free, 532032 used, 1269492 buff/cache
KiB Swap: 4194300 total, 3854192 free, 340108 used. 1137556 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
19963	apache	20	0	572224	13568	3648	S	0.3	0.7	0:00.06	httpd
20066	apache	20	0	572040	13132	3312	S	0.3	0.7	0:00.02	httpd
20103	apache	20	0	571644	12644	3188	S	0.3	0.7	0:00.01	httpd
20107	apache	20	0	571616	12744	3232	S	0.3	0.7	0:00.02	httpd
20242	web10	20	0	378492	17752	10376	S	0.3	1.0	0:00.08	php-cgi
1	root	20	0	348800	162516	1456	S	0.0	8.8	68:56.97	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:02.92	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	1:51.92	ksoftirqd/0
5	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/0:0H
7	root	rt	0	0	0	0	S	0.0	0.0	1:07.89	migration/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_bh
9	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcuob/0
10	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcuob/1
11	root	20	0	0	0	0	S	0.0	0.0	262:06.19	rcu_sched
12	root	20	0	0	0	0	S	0.0	0.0	84:59.97	rcuos/0
13	root	20	0	0	0	0	S	0.0	0.0	128:42.33	rcuos/1
14	root	rt	0	0	0	0	S	0.0	0.0	1:32.50	watchdog/0
15	root	rt	0	0	0	0	S	0.0	0.0	1:27.98	watchdog/1
16	root	rt	0	0	0	0	S	0.0	0.0	1:07.58	migration/1
17	root	20	0	0	0	0	S	0.0	0.0	3:51.78	ksoftirqd/1
18	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/1:0H
19	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	khelper
20	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
21	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	netns
22	root	20	0	0	0	0	S	0.0	0.0	0:00.00	xenwatch
23	root	20	0	0	0	0	S	0.0	0.0	0:00.00	xenbus
24	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	writeback
25	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kintegrityd
26	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	bioaset
27	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kblockd
28	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	khubd
29	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khubd



- Search or start new chat
- Famwhap** 13:45
Ina: Ff door dan is het goed...
 - Ina Leenheer** 12:15
Ok
 - Butterfly** Yesterday
Johannes: 🤔👍
 - Oma en Oma** Yesterday
Ina: Appen wel ff zodra we heen ga...
 - Wilma Leenheer-Tilman** Yesterday
Bij de lift 😊
 - Stefan Buringa** Friday
Mazzelkont
 - Frieda van der Veen** Wednesday
Heel graag gedaan! Ik wens jullie v...
 - Anneke Tilman Swieringa** Wednesday



Oma en Oma
Anneke, Ina, Wilma, You

17:33 ✓✓

Hoog en droog 17:33 ✓✓

Anneke Tilman-Swieringa
Hellup! 17:34

(Filmpje gezien 😊) 17:35

Ina Leenheer
Ik ook, bar.... 18:38

YESTERDAY

Zijn weer thuis! 21:32 ✓✓

Ina Leenheer
Mooi. Gaan morgenochtend naar de kinderboerderij. Zullen we elkaar daar ontmoeten?? 21:34

Dat is prima! 21:36 ✓✓

1 UNREAD MESSAGE















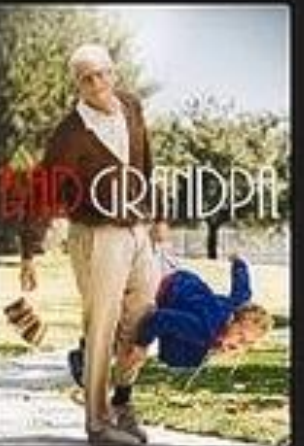













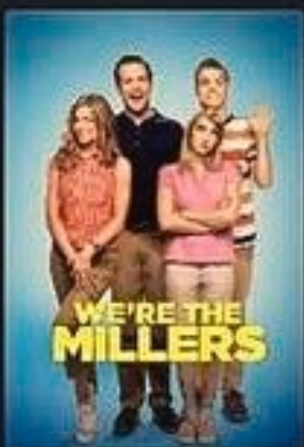







Ina Leenheer
Appen wel ff zodra we heen gaan... 21:37

Popcorn Time

Search

Movies

- Popular
- Action
- Adventure
- Animation
- Biography
- Comedy
- Crime
- Documentary
- Drama
- Family
- Fantasy
- Film-Noir
- History
- Horror
- Music
- Musical
- Mystery
- Romance

 Delivery Man 2013	 12 Years a Slave 2013	 American Hustle 2013	 Gravity 2013	 Frozen 2013	 Thor The Dark W... 2013	 Reasonable Doubt 2014	 Captain Phillips 2013	 The Hunger Ga... 2013
 Dallas Buyers Club 2013	 The Book Thief 2013	 Saving Mr. Banks 2013	 Escape Plan 2013	 Ender's Game 2013	 Jackass Prese... 2013	 Last Vegas 2013	 Nebraska 2013	 The Wolverine 2013
 Homefront 2013	 Rush 2013	 August Osage C... 2013	 About Time 2013	 Cloudy with a... 2013	 Prisoners 2013	 Despicable Me 2 2013	 The Best Offer 2013	 World War Z 2013
 Man of Steel 2013	 We're the Mil... 2013	 The Counselor 2013	 This Is the End 2013	 Elysium 2013	 Now You See M... 2013	 Pacific Rim 2013	 The Lone Ranger 2013	 Kill Your Darlings 2013

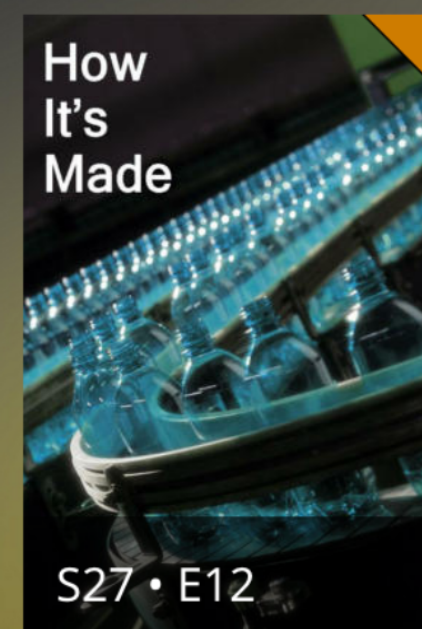
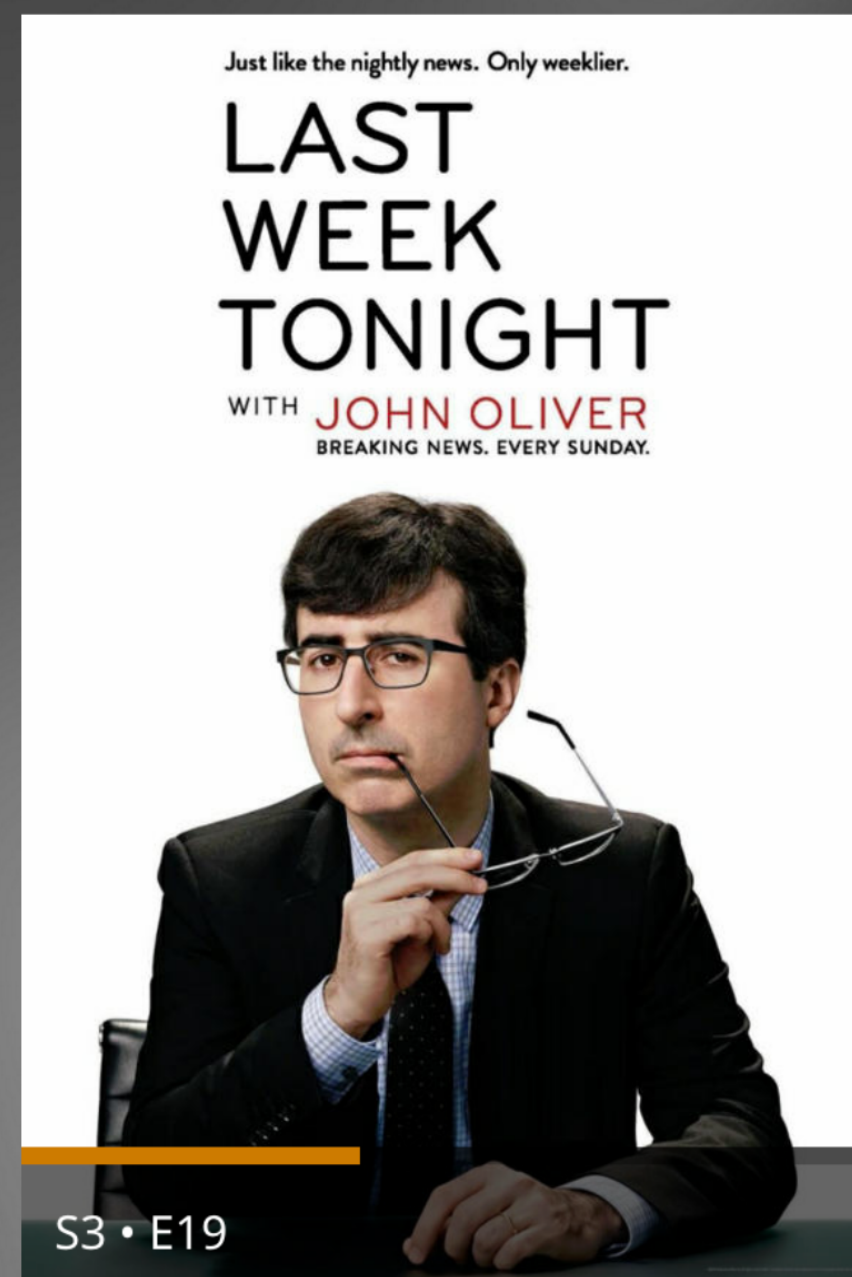


TV SHOWS

ON DECK

RECENTLY AIRED TV

 Browse All



More



GDG DevFest Season 2016

22-23 OCTOBER, 2016

Be a GDG. Be a Hero!

GET TICKET



150

Attendees

2

Days

20

Sessions

2

Parallel tracks

The biggest Google tech conference in Belgium carefully crafted for you by GDG community! All about Android, Web and Cloud from the world experts

YOUR BROWSER SCORES **485** OUT OF 555 POINTS



using Edge 14 on Windows 10 Correct? ✓ ✕

View results Compare to... Share Donate

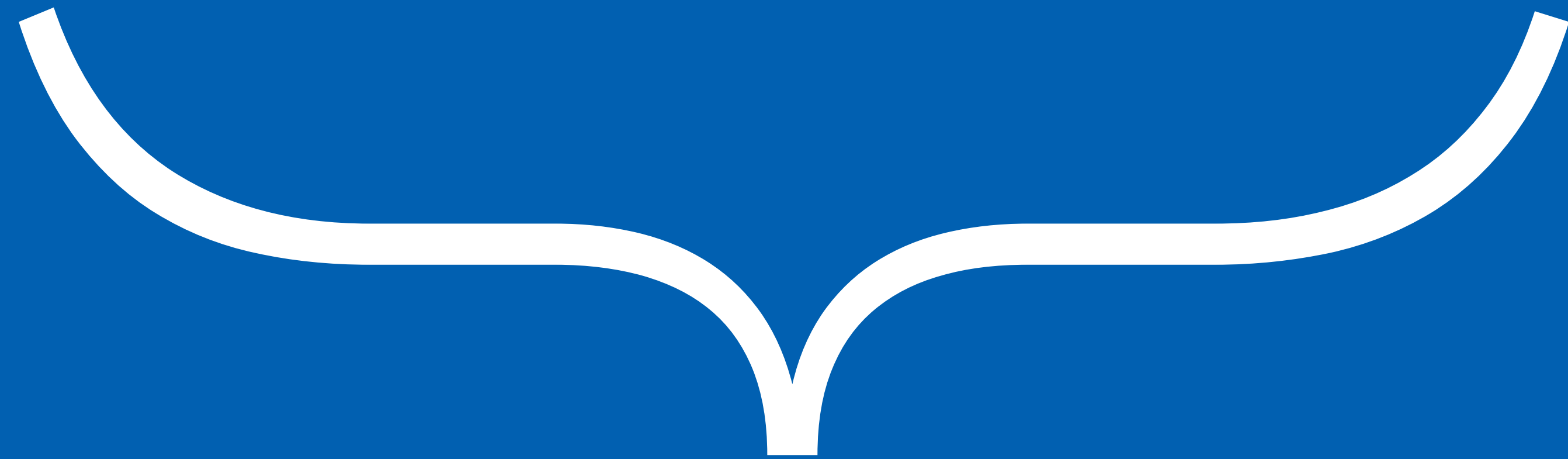
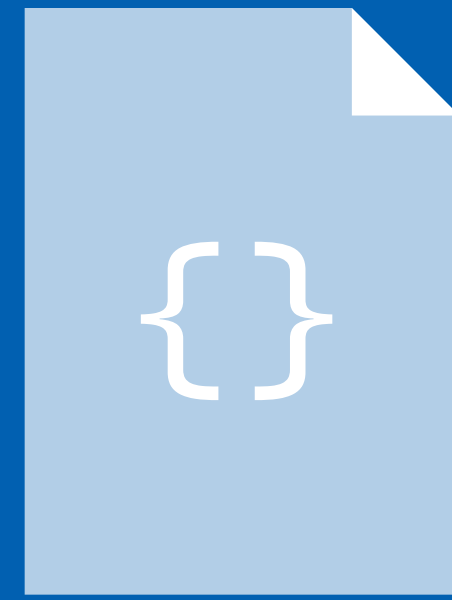
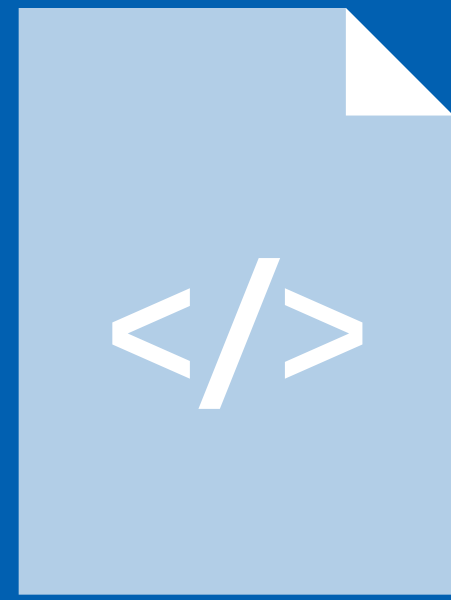
Parsing rules 5

Video 33

<!DOCTYPE html> triggers standards mode Yes ✓

video element Yes ✓

PACKAGED WEB APPS



HOSTED WEB APPS



+ URL of the hosted web app



2007



ADOBE AIR

application.xml

```
<application
  xmlns="http://ns.adobe.com/air/application/2.5">

  <id>nl.salonhub.Salonhub</id>
  <filename>Salonhub</filename>
  <name>Salonhub</name>
  <versionNumber>6.0.356</versionNumber>
  <description>De flexibele en complete oplossing voor uw kapsalon</description>

  <initialWindow>
    <content>platform/air/app/index.html</content>

    <width>1024</width>
    <height>768</height>
```

adt

-package

-storetype pkcs12 -keystore cert.p12 -storepass *****

dist/air/Salohub-6.0.365.air

build/air/application.xml

-C build/air assets external lib platform settings.js



Salonhub.air



Application Install



Salonhub

Description

Salonhub - De flexibele en complete oplossing voor uw kapsalon

Installation Preferences

Start application after installation

Installation Location:

/Applications



Cancel

Continue

2007



ADOBE AIR

2007



ADOBE AIR

2009



APACHE
CORDOVA™

Vibration

Dialogs

Camera

Network Information

Battery Status

Device Motion

Splashscreen

DEVICE API'S

Files

Statusbar

Device Orientation

Media Capture

Geolocation

Media

File Transfers

PLUGINS

“

PhoneGap is a polyfill, and the ultimate purpose of PhoneGap is to cease to exist

— Brian LeRoux

2009



APACHE
CORDOVA™

2012



chrome app



chromebook





chrome web store

2012



chrome app

2013



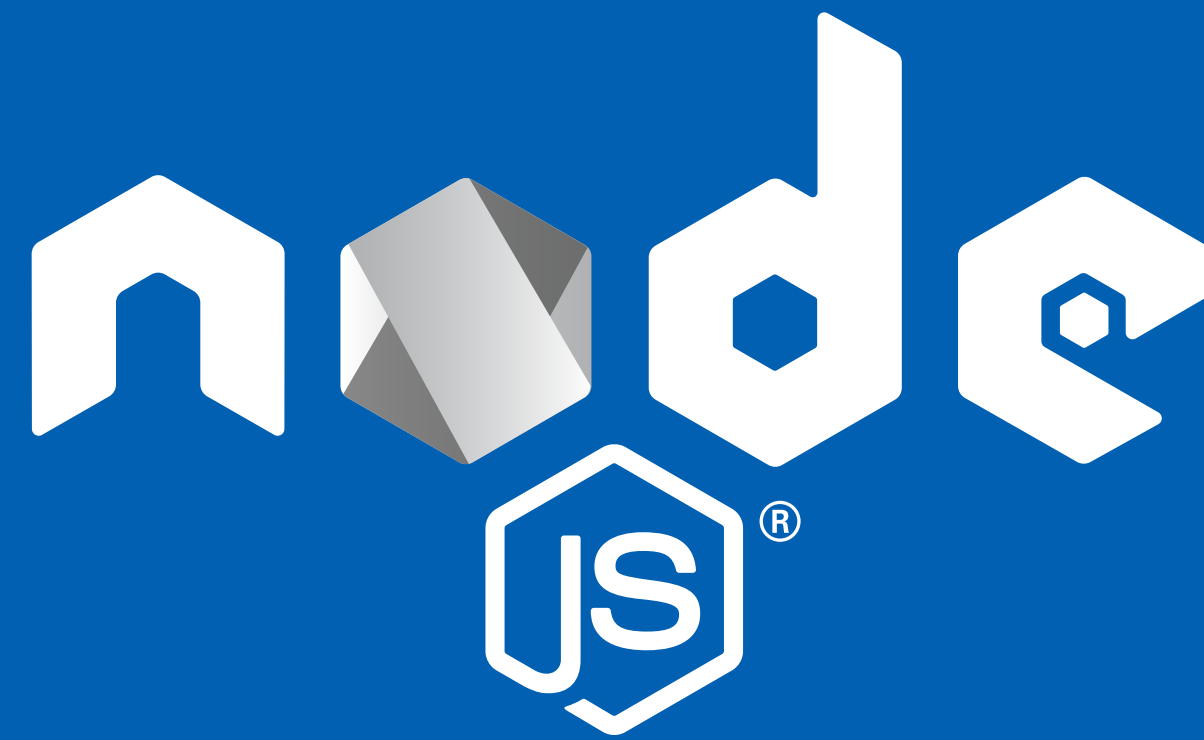
ELECTRON



```
data.js — /Users/niels/Projects/HTML5test
HTML5test
├── dist
├── private
├── src
│   ├── assets
│   ├── backend
│   ├── css
│   ├── fonts
│   ├── images
│   └── scripts
│       ├── 5
│       ├── 6
│       ├── 7
│       └── 8
│           ├── data.js
│           ├── engine.js
│           ├── highcharts
│           ├── jquery
│           ├── base.js
│           ├── fullscreen.js
│           ├── reporting.js
│           ├── vendor
│           ├── .ignore
│           ├── .access
│           ├── .about.html
│           ├── .composer.json
│           ├── .donate.html
│           ├── .index.html
│           ├── .LICENSE
│           ├── .qr.html
│           └── .README.md
└── engine.js
    1
    2
    3   var tests = [
    4
    5       {
    6           id:    'semantics',
    7           name:  'Semantics',
    8           column: 'left',
    9           items: [
10               {
11                   id:    'parsing',
12                   name:  'Parsing rules',
13                   status: 'stable',
14                   items: [
15                       {
16                           id:    'doctype',
17                           name:  '<code>&lt;!DOCTYPE html&gt;</code> triggers standards mode',
18                           urls:  [
19                               [ 'w3c', 'http://www.w3.org/TR/html5/syntax.html#the-doc' ],
20                               [ 'whatwg', 'https://html.spec.whatwg.org/multipage/synt' ]
21                           ],
22                       }, {
23                           id:    'tokenizer',
24                           name:  'HTML5 tokenizer',
25                           value: 3,
26                           urls:  [
27                               [ 'w3c', 'http://www.w3.org/TR/html5/syntax.html#parsing' ],
28                               [ 'whatwg', 'https://html.spec.whatwg.org/multipage/synt' ],
29                               [ 'mdn', '/Web/Guide/HTML/HTML5/HTML5_Parser' ]
30                           ],
31                       }, {
32                           id:    'tree',
33                           name:  'HTML5 tree building',
34                           value: 2,
```



+



launch.js

```
const electron = require('electron');
const app = electron.app;

let mainWindow;

function createWindow () {
  mainWindow = new electron.BrowserWindow({ width: 800, height: 600 });

  mainWindow.loadURL('file://' + __dirname + '/app/index.html');
  mainWindow.on('closed', () => { mainWindow = null });
}

app.on('ready', () => {
  createWindow();
});

app.on('window-all-closed', () => {
  if (process.platform !== 'darwin') {
    app.quit();
  }
});
```

2013



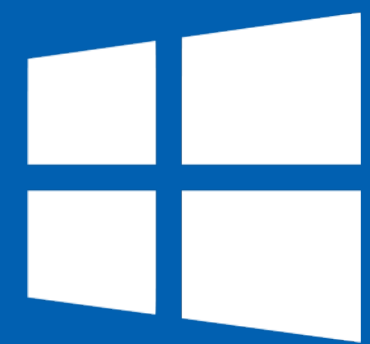
ELECTRON

2013



ELECTRON

2014



Universal Windows Platform

Visual Studio

- Start
- New Project...
- Open Project...
- Open from Source Control...

- Recent
- App1

Discover Visual Studio Community 2015

New to Visual Studio? Check out coding tutorials and sample projects
Get training on new frameworks, languages, and technologies
Create a private code repo and backlog for your project
See how easy it is to get started with cloud services
Discover ways to extend and customize the IDE

Ready to Cloud-power your experience?

[Connect to Azure](#)

New on Microsoft Platforms

- Windows
- Microsoft Azure
- ASP.NET and Web

News

Announcing .NET Framework 4.6.2

We are excited to announce the availability of the .NET Framework 4.6.2! Many of the changes are based on your feedback, including those submitted on UserVoi...
NEW Thursday, August 4, 2016

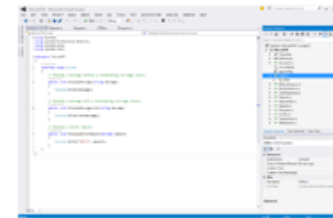
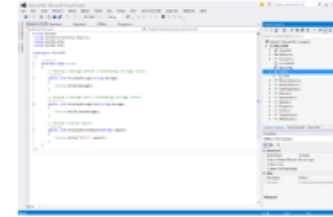
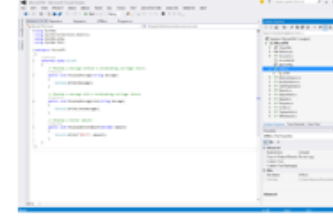
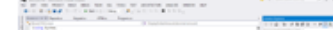
Create high quality mobile apps with Ionic & Visual Studio

Are you a web developer building mobile applications today? Are you considering joining the ranks of web developers moving beyond the mobile web to mobil...
NEW Thursday, August 4, 2016

Entity Framework Core 1.1 Plans

Now that Entity Framework Core (EF Core) 1.0 is





Featured Videos

-  **NEW** IntelliTrace Experience
12:13
-  **NEW** Windows Presentation Foundation Application Develop...
15:49
-  **NEW** What's New in C# 6.0
7:49
-  **NEW** What's New for .NET 2015

New Project

- Recent
- Installed
- Templates
 - Visual C#
 - Visual Basic
 - Visual F#
 - Visual C++
 - SQL Server
 - Python
 - JavaScript
 - Apache Cordova Apps
 - Windows
 - Universal
 - TypeScript
 - Game
 - Build Accelerator
 - Other Project Types
 - Samples
 - Online

.NET Framework 4.5.2 Sort by: Default

	Blank App (Universal Windows)	JavaScript
	Blank App - Web Context (Universal Windows)	JavaScript
	Hosted Web App (Universal Windows)	JavaScript
	WinJS App (Universal Windows)	JavaScript

Search Installed Templates (Ctrl+E)

Type: JavaScript
A project for a Universal Windows app with a remote Start Page. To have access to all Universal Windows APIs the URL needs to be added to the Application Content URI Rules.



[Click here to go online and find templates.](#)

Name:

Location:

Solution name:

Create directory for solution

Add to Source Control

The properties of the deployment package for your app are contained in the app manifest file. You can use the Manifest Designer to set or modify one or more of the properties.

- Application
- Visual Assets
- Capabilities
- Declarations
- Content URIs
- Packaging

Use this page to set the properties that identify and describe your app.





Display name:

Start page:

Default language: [More information](#)

Description:

Supported rotations: An optional setting that indicates the app's orientation preferences.

-  Landscape
-  Portrait
-  Landscape-flipped
-  Portrait-flipped

Lock screen notifications:

Resource group:

Tile Update:

Updates the app tile by periodically polling a URI. The URI template can contain "{language}" and "{region}" tokens that will be replaced at runtime to generate the URI to poll.

[More information](#)

Recurrence:

URI Template:

The properties of the deployment package for your app are contained in the app manifest file. You can use the Manifest Designer to set or modify one or more of the properties.

- Application
- Visual Assets
- Capabilities
- Declarations
- Content URIs
- Packaging

Windows Store apps should support displays of different resolutions. Windows provides a simple way to do this via resource loading. This section lists all the assets which are used in the manifest.

[More information](#)

- All Image Assets
 - Tile Images and Logos
 - Square 71x71 Logo
 - Square 150x150 Logo
 - Wide 310x150 Logo
 - Square 310x310 Logo
 - Square 44x44 Logo
 - Store Logo
 - Badge Logo
 - Splash Screen

Tile:

Short name:

Show name: Square 150x150 Logo
 Wide 310x150 Logo
 Square 310x310 Logo

Background color:

Square 150x150 logo:

Scaled Assets

600 x 600 px	300 x 300 px	150 x 150 px	225 x 225 px	188 x 188 px
Recommended	Recommended	Recommended		

The properties of the deployment package for your app are contained in the app manifest file. You can use the Manifest Designer to set or modify one or more of the properties.

- Application
- Visual Assets
- Capabilities
- Declarations
- Content URIs
- Packaging

Use this page to specify system features or devices that your app can use.

Capabilities:

- AllJoyn
- Appointments
- Background Media Playback
- Blocked Chat Messages
- Bluetooth
- Chat Message Access
- Code Generation
- Contacts
- Enterprise Authentication
- Internet (Client & Server)
- Internet (Client)
- Location
- Microphone
- Music Library
- Objects 3D
- Phone Call
- Pictures Library
- Private Networks (Client & Server)
- Proximity
- Remote System

Description:

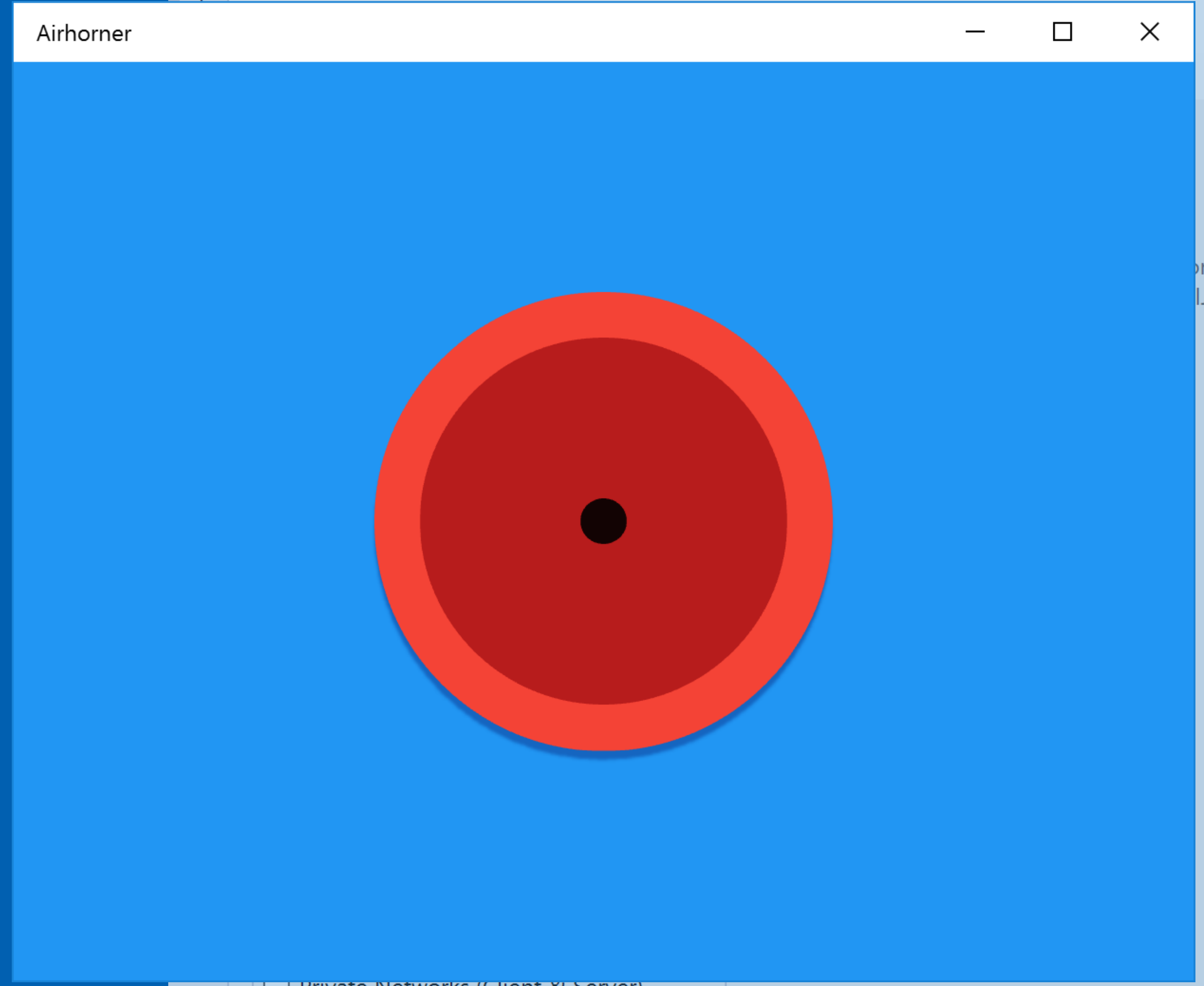
Allows AllJoyn-enabled apps and devices on a network to discover and interact with each other. All apps that access APIs in the Windows.Devices.AllJoyn namespace must use this capability.

[More information](#)

package.appxmanifest

The properties of the deployment package for your app are contained in the app manifest file. You can use the Manifest Designer to set or modify one or more of the properties.

Solution Explorer
Team Explorer
Class View



Content URIs Packaging

on a network to discover and interact with each other. All apps
Ujoyn namespace must use this capability.

- Private Networks (Client & Server)
- Proximity
- Remote System



manifoldjs

```
npm install -g manifoldjs
```

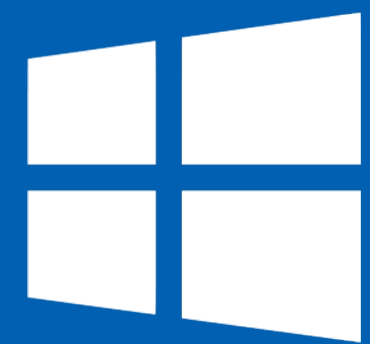
```
manifoldjs https://airhorner.com -d ~/Projects -p windows10
```

```
manifoldjs package ~/Projects/AirHorner/windows10
```

**UNIVERSAL WINDOWS APPS
HAVE ACCESS TO THE
UNIVERSAL WINDOWS API**

**DEPLOY ON
DESKTOP, MOBILE
AND XBOX ONE**

2014



Universal Windows Platform

AND MANY MORE...

BUT...

DEPENDANT ON THIRD PARTIES

NOT PART OF THE WEB



PROGRESSIVE WEB APPS

WEB MANIFEST



index.html

```
<!doctype>  
<html>  
  <head>  
    <title>HTML5test - How well does your browser support HTML5?</title>
```

index.html

```
<!doctype>
<html>
  <head>
    <title>HTML5test - How well does your browser support HTML5?</title>

    <meta name="apple-mobile-web-app-capable" content="yes">
    <meta name="apple-mobile-web-app-status-bar-style" content="black">
```

```
<!doctype>
<html>
  <head>
    <title>HTML5test - How well does your browser support HTML5?</title>

    <meta name="apple-mobile-web-app-capable" content="yes">
    <meta name="apple-mobile-web-app-status-bar-style" content="black">

    <link rel="apple-touch-icon" sizes="57x57" href="/apple-icon-57x57.png">
    <link rel="apple-touch-icon" sizes="114x114" href="/apple-icon-114x114.png">
    <link rel="apple-touch-icon" sizes="72x72" href="/apple-icon-72x72.png">
    <link rel="apple-touch-icon" sizes="144x144" href="/apple-icon-144x144.png">
    <link rel="apple-touch-icon" sizes="60x60" href="/apple-icon-60x60.png">
    <link rel="apple-touch-icon" sizes="120x120" href="/apple-icon-120x120.png">
    <link rel="apple-touch-icon" sizes="76x76" href="/apple-icon-76x76.png">
    <link rel="apple-touch-icon" sizes="152x152" href="/apple-icon-152x152.png">
```

index.html

```
<link rel="apple-touch-icon" sizes="57x57" href="/apple-icon-57x57.png">  
<link rel="apple-touch-icon" sizes="114x114" href="/apple-icon-114x114.png">  
<link rel="apple-touch-icon" sizes="72x72" href="/apple-icon-72x72.png">  
<link rel="apple-touch-icon" sizes="144x144" href="/apple-icon-144x144.png">  
<link rel="apple-touch-icon" sizes="60x60" href="/apple-icon-60x60.png">  
<link rel="apple-touch-icon" sizes="120x120" href="/apple-icon-120x120.png">  
<link rel="apple-touch-icon" sizes="76x76" href="/apple-icon-76x76.png">  
<link rel="apple-touch-icon" sizes="152x152" href="/apple-icon-152x152.png">
```

index.html

```
<link rel="apple-touch-icon" sizes="57x57" href="/apple-icon-57x57.png">
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<link rel="apple-touch-icon" sizes="72x72" href="/apple-icon-72x72.png">
<link rel="apple-touch-icon" sizes="144x144" href="/apple-icon-144x144.png">
<link rel="apple-touch-icon" sizes="60x60" href="/apple-icon-60x60.png">
<link rel="apple-touch-icon" sizes="120x120" href="/apple-icon-120x120.png">
<link rel="apple-touch-icon" sizes="76x76" href="/apple-icon-76x76.png">
<link rel="apple-touch-icon" sizes="152x152" href="/apple-icon-152x152.png">

<meta name="mobile-web-app-capable" content="yes">
<meta name="theme-color" content="#0092bf">
```

index.html

```
<link rel="apple-touch-icon" sizes="57x57" href="/apple-icon-57x57.png">
<link rel="apple-touch-icon" sizes="114x114" href="/apple-icon-114x114.png">
<link rel="apple-touch-icon" sizes="72x72" href="/apple-icon-72x72.png">
<link rel="apple-touch-icon" sizes="144x144" href="/apple-icon-144x144.png">
<link rel="apple-touch-icon" sizes="60x60" href="/apple-icon-60x60.png">
<link rel="apple-touch-icon" sizes="120x120" href="/apple-icon-120x120.png">
<link rel="apple-touch-icon" sizes="76x76" href="/apple-icon-76x76.png">
<link rel="apple-touch-icon" sizes="152x152" href="/apple-icon-152x152.png">

<meta name="mobile-web-app-capable" content="yes">
<meta name="theme-color" content="#0092bf">

<link rel="icon" type="image/png" href="/icon-16x16.png" sizes="16x16">
<link rel="icon" type="image/png" href="/icon-32x32.png" sizes="32x32">
<link rel="icon" type="image/png" href="/icon-96x96.png" sizes="96x96">
<link rel="icon" type="image/png" href="/icon-160x160.png" sizes="160x160">
<link rel="icon" type="image/png" href="/icon-196x196.png" sizes="196x196">
```

```
<meta name="mobile-web-app-capable" content="yes">
<meta name="theme-color" content="#0092bf">

<link rel="icon" type="image/png" href="/icon-16x16.png" sizes="16x16">
<link rel="icon" type="image/png" href="/icon-32x32.png" sizes="32x32">
<link rel="icon" type="image/png" href="/icon-96x96.png" sizes="96x96">
<link rel="icon" type="image/png" href="/icon-160x160.png" sizes="160x160">
<link rel="icon" type="image/png" href="/icon-196x196.png" sizes="196x196">
```


index.html

```
<meta name="mobile-web-app-capable" content="yes">
<meta name="theme-color" content="#0092bf">

<link rel="icon" type="image/png" href="/icon-16x16.png" sizes="16x16">
<link rel="icon" type="image/png" href="/icon-32x32.png" sizes="32x32">
<link rel="icon" type="image/png" href="/icon-96x96.png" sizes="96x96">
<link rel="icon" type="image/png" href="/icon-160x160.png" sizes="160x160">
<link rel="icon" type="image/png" href="/icon-196x196.png" sizes="196x196">

<meta name="application-name" content="HTML5test">
<meta name="msapplication-TileColor" content="#0092bf">
<meta name="msapplication-TileImage" content="/mstile-144x144.png">
```

**PLACE EVERYTHING
IN A SEPARATE JSON FILE**

manifest.json

```
{
  "name": "HTML5test",
  "theme_color": "#0092bf",
  "display": "standalone",

  "icons": [
    {
      "src": "/icon-192x192.png",
      "sizes": "192x192",
      "type": "image/png"
    },
    {
      "src": "/icon-256x256.png",
      "sizes": "256x256",
      "type": "image/png"
    },
    {
      "src": "/icon-512x512.png",
      "sizes": "512x512",
      "type": "image/png"
    }
  ]
}
```

APP NAME

ICONS

THEME COLORS

SETTINGS

LAUNCH FULL SCREEN

```
{  
  "display": "standalone"  
}
```

LIMIT SCREEN ORIENTATION

```
{  
  "orientation": "portrait"  
}
```

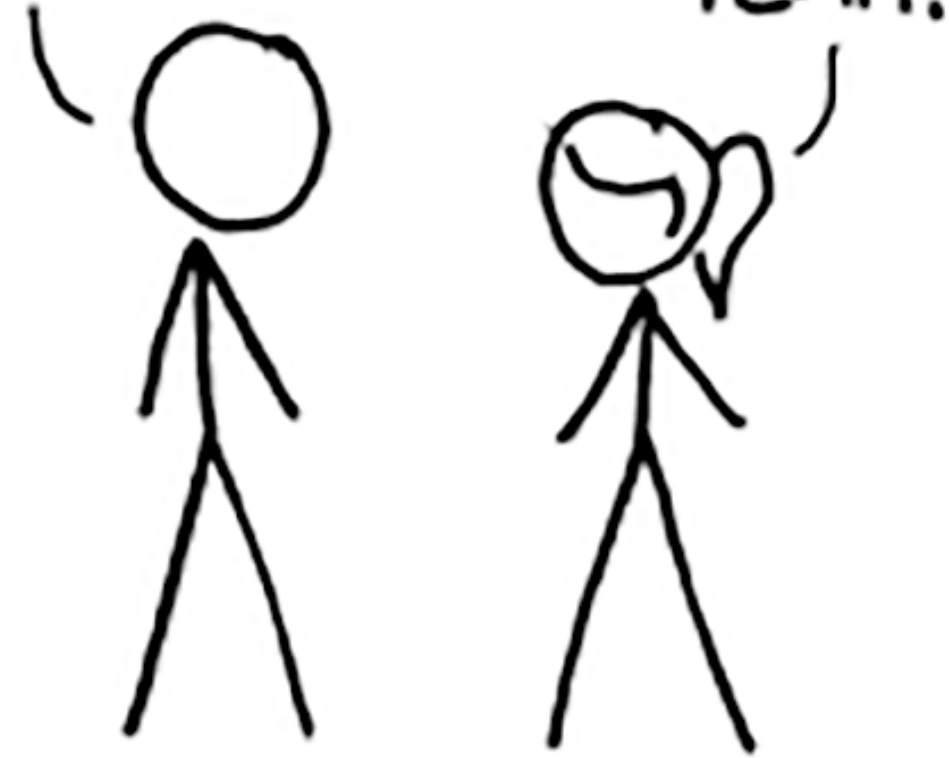
START A DIFFERENT URL

```
{  
  "start_url": "standalone.html"  
}
```


HOW STANDARDS PROLIFERATE:
(SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC)

SITUATION:
THERE ARE
14 COMPETING
STANDARDS.

14?! RIDICULOUS!
WE NEED TO DEVELOP
ONE UNIVERSAL STANDARD
THAT COVERS EVERYONE'S
USE CASES.



SOON:

SITUATION:
THERE ARE
15 COMPETING
STANDARDS.

```
<!doctype>
<html>
  <head>
    <title>HTML5test - How well does your browser support HTML5?</title>

    <meta name="apple-mobile-web-app-capable" content="yes">
    <meta name="apple-mobile-web-app-status-bar-style" content="black">

    <link rel="apple-touch-icon" sizes="57x57" href="/apple-icon-57x57.png">
    <link rel="apple-touch-icon" sizes="114x114" href="/apple-icon-114x114.png">
    <link rel="apple-touch-icon" sizes="72x72" href="/apple-icon-72x72.png">
    <link rel="apple-touch-icon" sizes="144x144" href="/apple-icon-144x144.png">
    <link rel="apple-touch-icon" sizes="60x60" href="/apple-icon-60x60.png">
    <link rel="apple-touch-icon" sizes="120x120" href="/apple-icon-120x120.png">
    <link rel="apple-touch-icon" sizes="76x76" href="/apple-icon-76x76.png">
    <link rel="apple-touch-icon" sizes="152x152" href="/apple-icon-152x152.png">

    <meta name="mobile-web-app-capable" content="yes">
    <meta name="theme-color" content="#0092bf">

    <link rel="icon" type="image/png" href="/icon-16x16.png" sizes="16x16">
```

index.html

```
<meta name="mobile-web-app-capable" content="yes">
<meta name="theme-color" content="#0092bf">

<link rel="icon" type="image/png" href="/icon-16x16.png" sizes="16x16">
<link rel="icon" type="image/png" href="/icon-32x32.png" sizes="32x32">
<link rel="icon" type="image/png" href="/icon-96x96.png" sizes="96x96">
<link rel="icon" type="image/png" href="/icon-160x160.png" sizes="160x160">
<link rel="icon" type="image/png" href="/icon-196x196.png" sizes="196x196">

<meta name="application-name" content="HTML5test">
<meta name="msapplication-TileColor" content="#0092bf">
<meta name="msapplication-TileImage" content="/mstile-144x144.png">
```

index.html

```
<meta name="mobile-web-app-capable" content="yes">
<meta name="theme-color" content="#0092bf">

<link rel="icon" type="image/png" href="/icon-16x16.png" sizes="16x16">
<link rel="icon" type="image/png" href="/icon-32x32.png" sizes="32x32">
<link rel="icon" type="image/png" href="/icon-96x96.png" sizes="96x96">
<link rel="icon" type="image/png" href="/icon-160x160.png" sizes="160x160">
<link rel="icon" type="image/png" href="/icon-196x196.png" sizes="196x196">

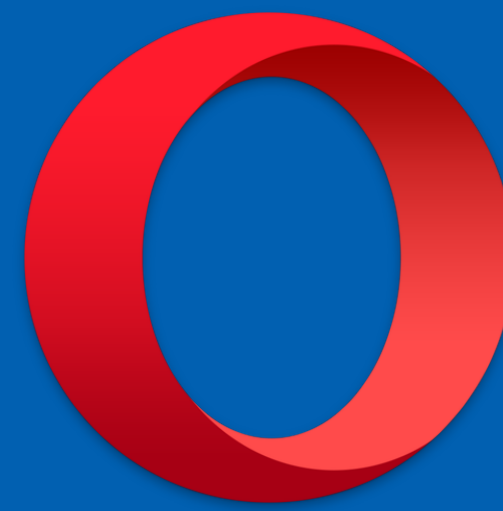
<meta name="application-name" content="HTML5test">
<meta name="msapplication-TileColor" content="#0092bf">
<meta name="msapplication-TileImage" content="/mstile-144x144.png">

<link rel="manifest" href="/manifest.json">
```

BROWSER SUPPORT



Chrome 39



Opera 32

DEVICE API'S



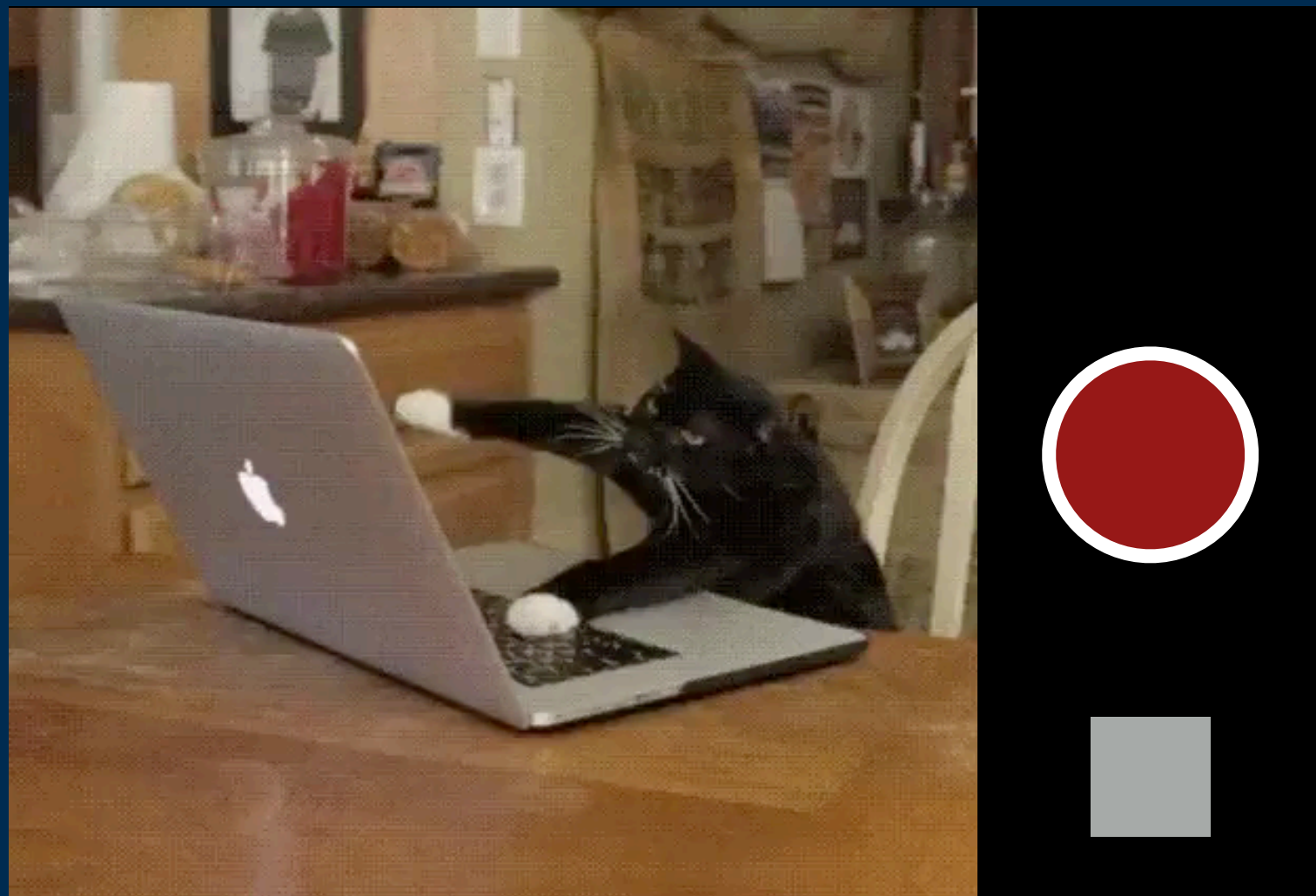
VIBRATION



```
navigator.vibrate(200);
```

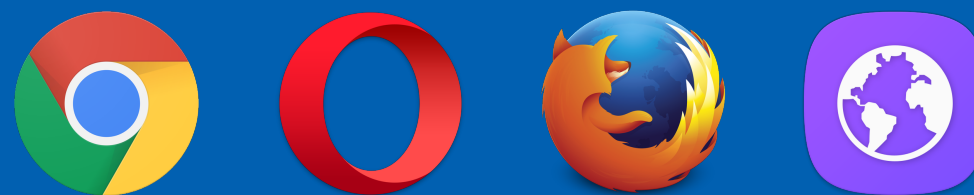
```
navigator.vibrate([100, 200, 200, 200, 500]);
```


CAMERA & MICROPHONE



```
navigator.getUserMedia(  
  {  
    audio: true,  
    video: { width: 1280, height: 720 }  
  },  
  function(stream) {  
  },  
  function(err) {  
  }  
});
```

BATTERY



```
navigator.getBattery().then(function(battery) {  
  
    battery.addEventListener('chargingchange', function() {  
        console.log(battery.charging);  
    });  
  
    battery.addEventListener('levelchange', function() {  
        console.log(battery.level);  
    });  
  
});
```

GEOLOCATION



DEVICE MOTION



DEVICE ORIENTATION



AMBIENT LIGHT



BLUETOOTH



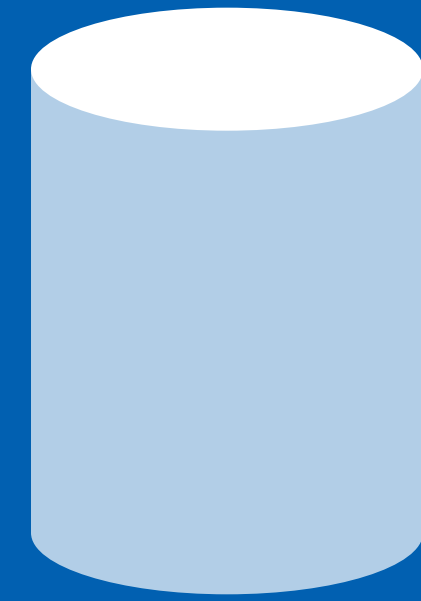
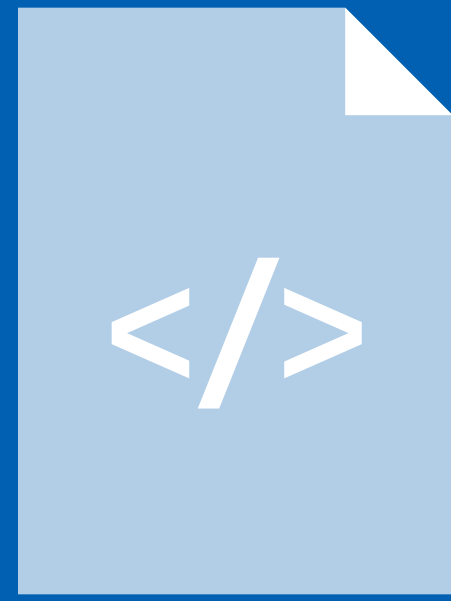
SERVICE WORKERS

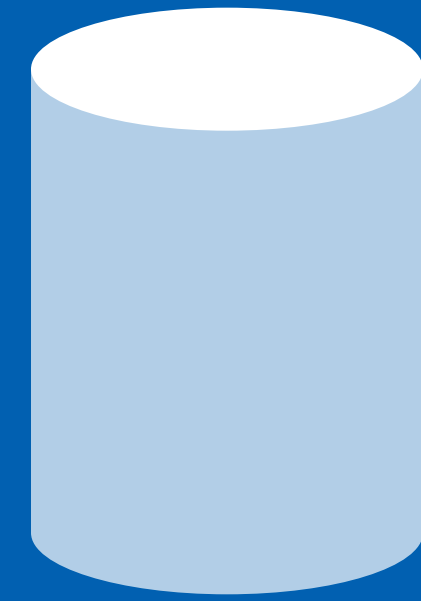
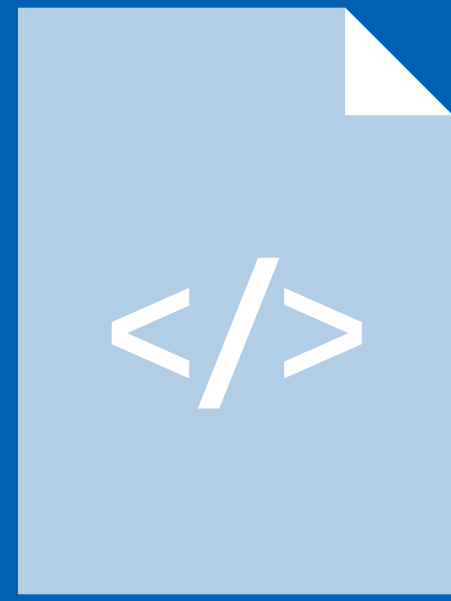


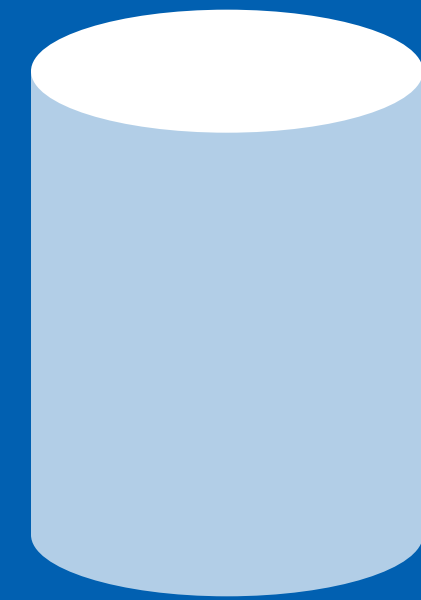
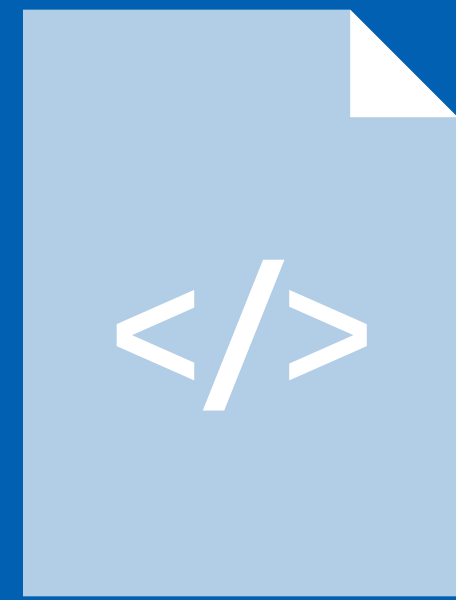
“ Application Cache is a Douchebag!

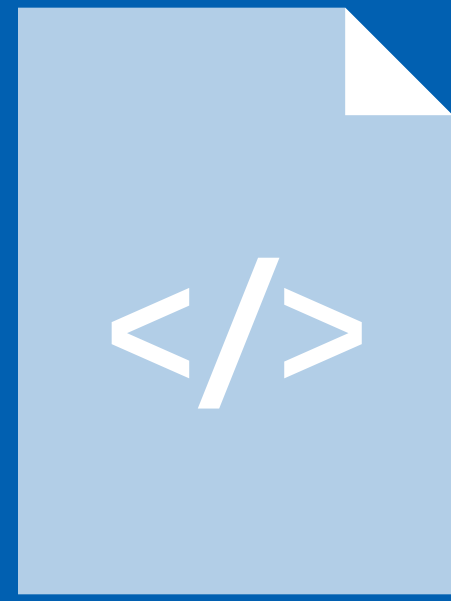


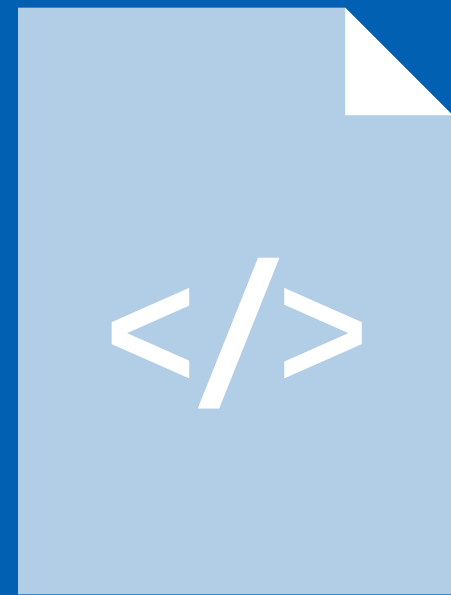
— Jake Archibald



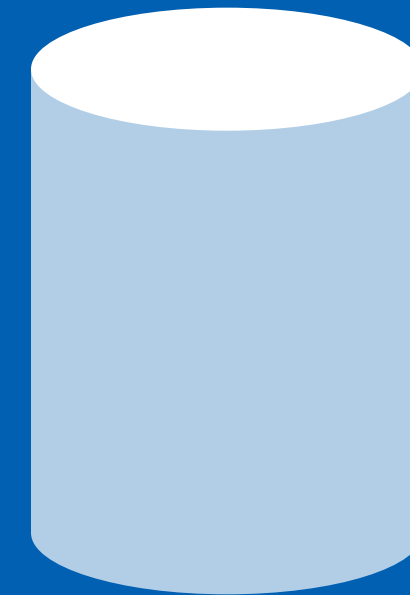


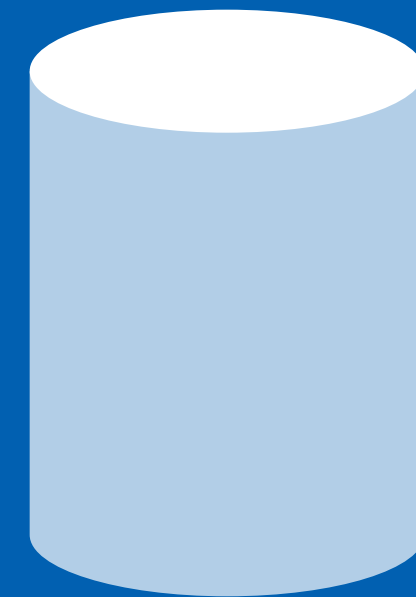
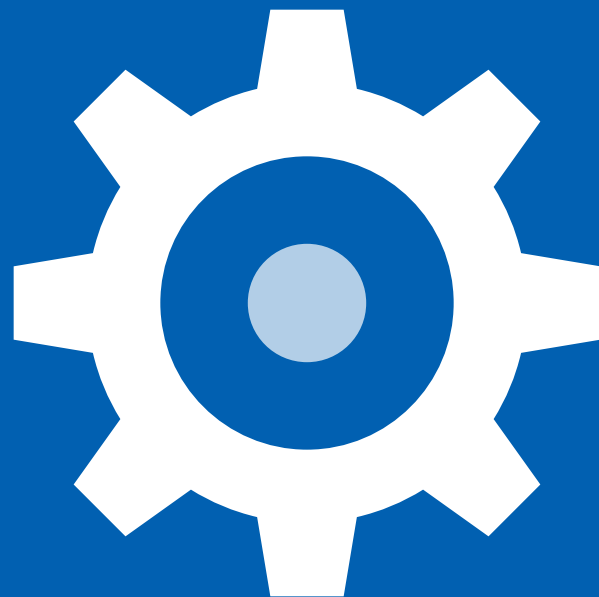
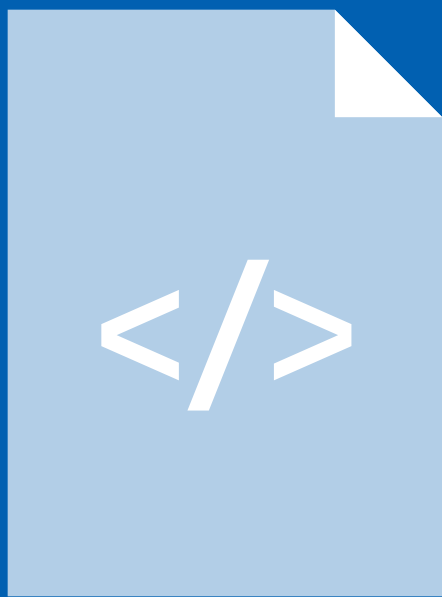


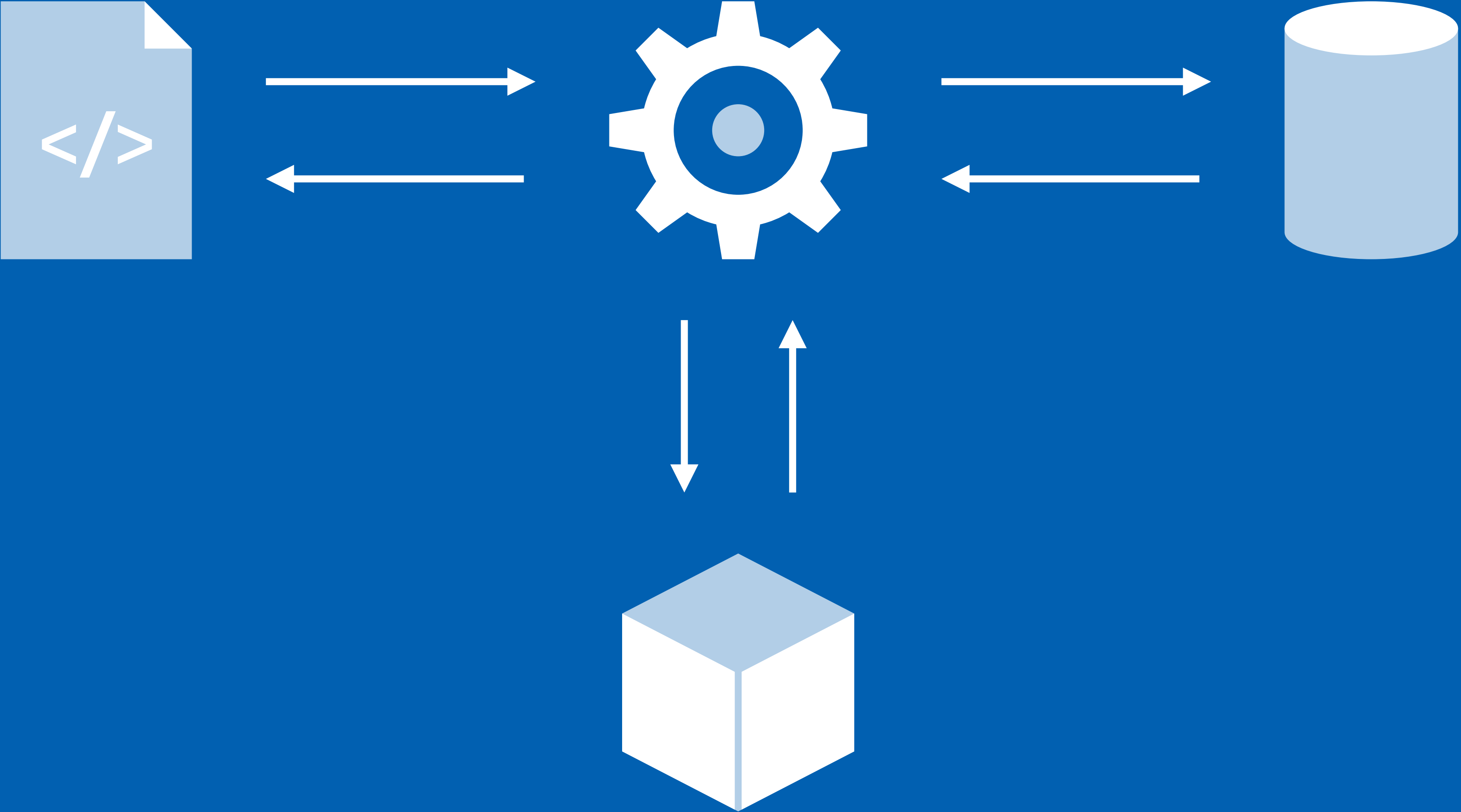


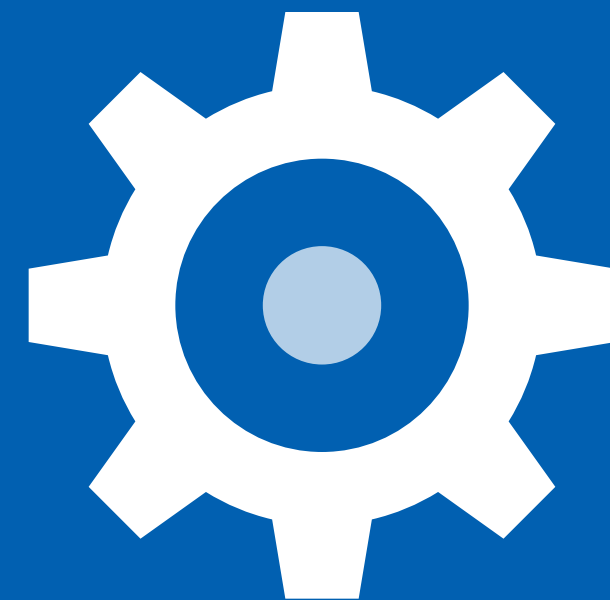


```
if ('serviceWorker' in navigator) {  
  navigator.serviceWorker.register('/sw.js');  
}
```









**THE SERVICE WORKER RUNS
JAVASCRIPT CODE :-)**

sw.js

```
self.addEventListener('install', function(event) {  
    // Perform install steps  
});
```

sw.js

```
self.addEventListener('install', function(event) {
  event.waitUntil(
    caches.open('v1').then(function(cache) {
      return cache.addAll([
        '/index.html',
        '/styles/main.css',
        '/scripts/main.js'
      ]);
    })
  );
});
```



sw.js

```
});  
});
```



sw.js

```
    );  
  });  
  
  self.addEventListener('fetch', function(event) {  
    // Intercept network requests  
  });
```

sw.js

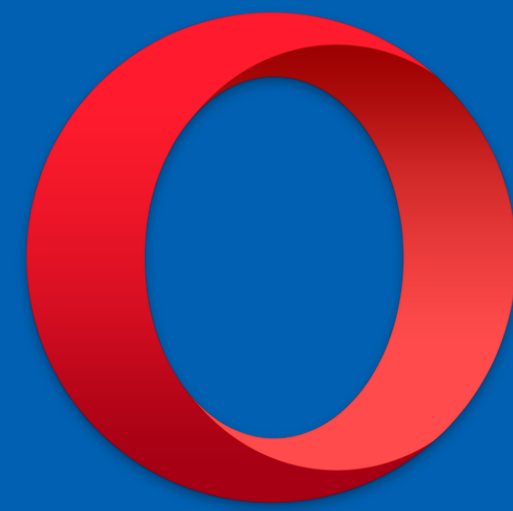
```
    );  
  });  
  
  self.addEventListener('fetch', function(event) {  
    event.respondWith(  
      caches.match(event.request)  
        .then(function(response) {  
          if (response) {  
            return response;  
          }  
  
          return fetch(event.request);  
        })  
    );  
  });  
});
```

**THE SERVICE WORKER IS
INDEPENDENT OF YOUR WEBPAGE**

BROWSER SUPPORT



Chrome 40



Opera 27



Firefox 44



Samsung 4



Edge
(behind flag)

PUSH NOTIFICATIONS

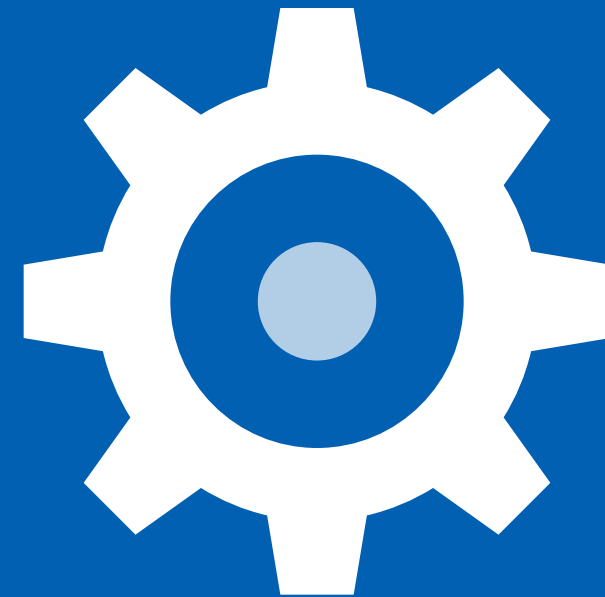
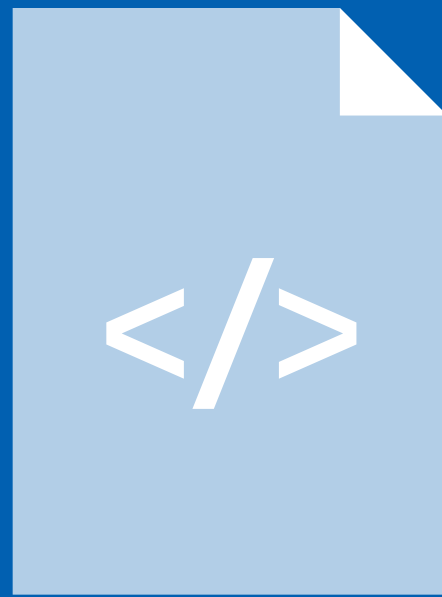


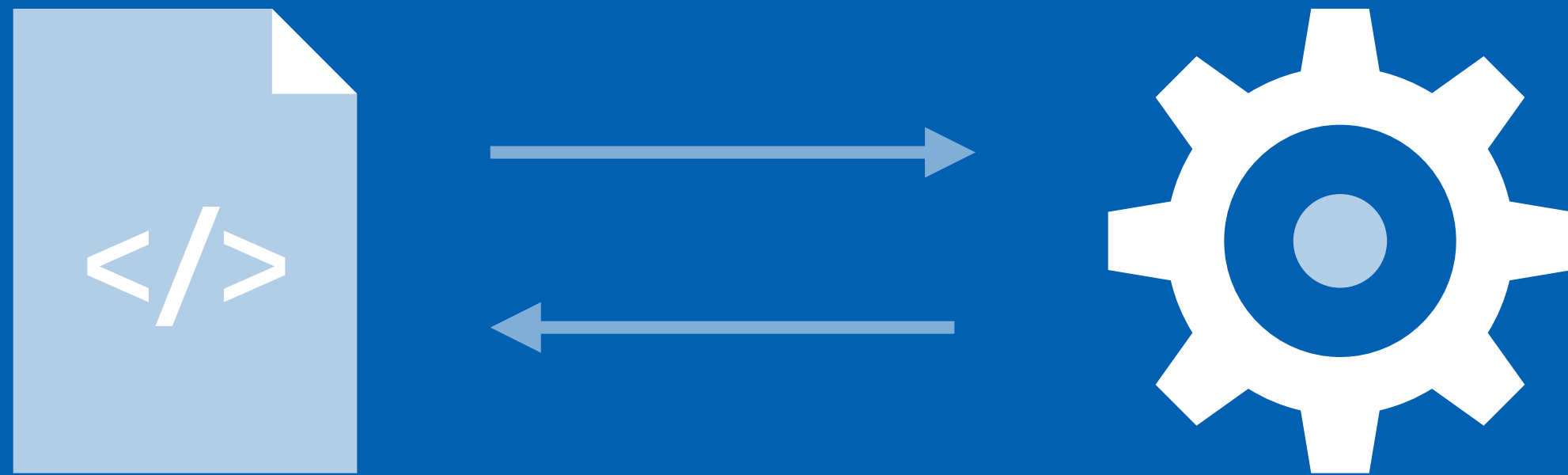
**WEB PUSH
API**

**WEB PUSH
PROTOCOL**

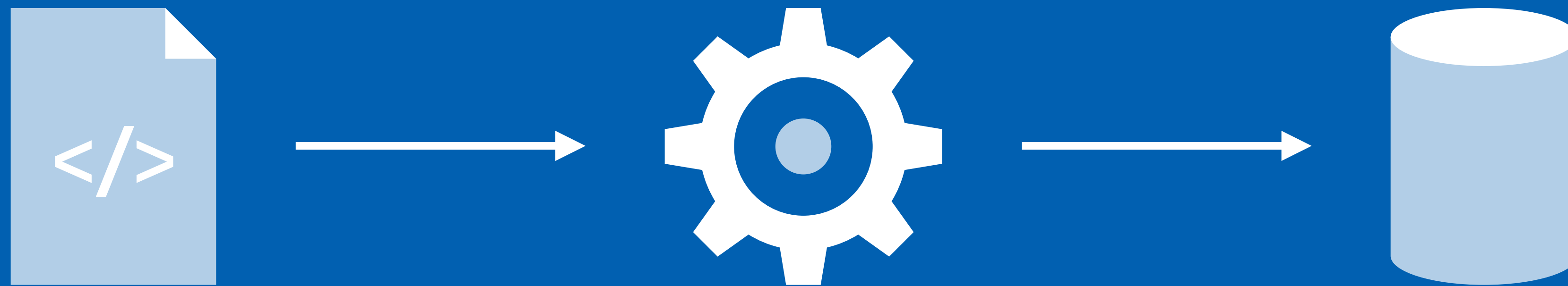
**WEB
NOTIFICATIONS**

**SERVICE
WORKERS**

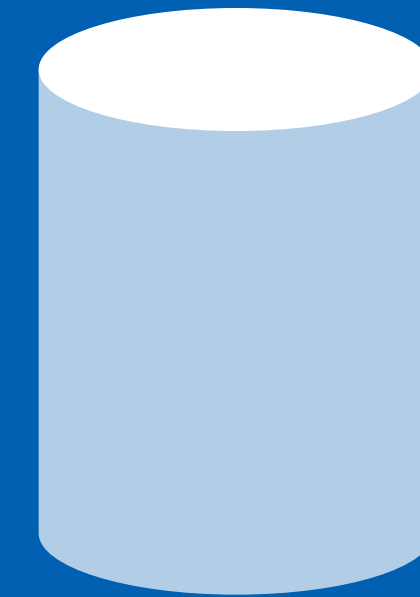




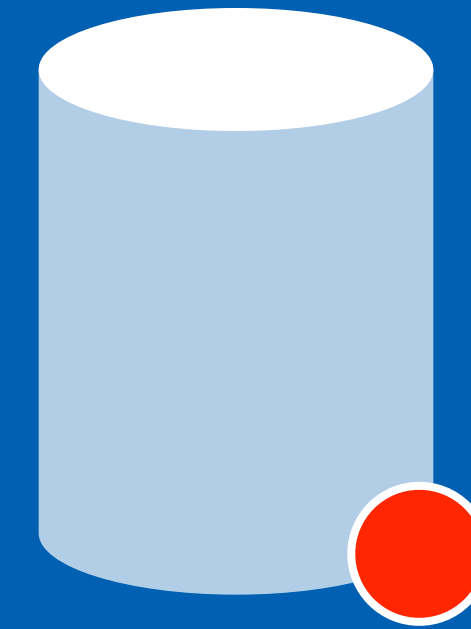
```
navigator.serviceWorker.ready.then(function(sw) {  
  sw.pushManager.subscribe().then(function(subscription) {  
    // Send subscription to server  
  })  
})
```



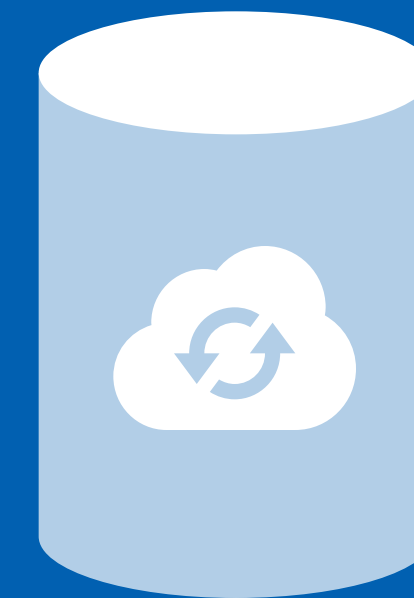
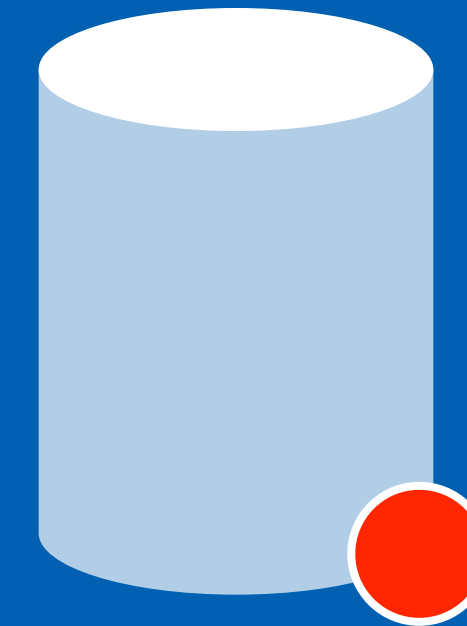
Send the subscription data to our server,
including the URL of the push server



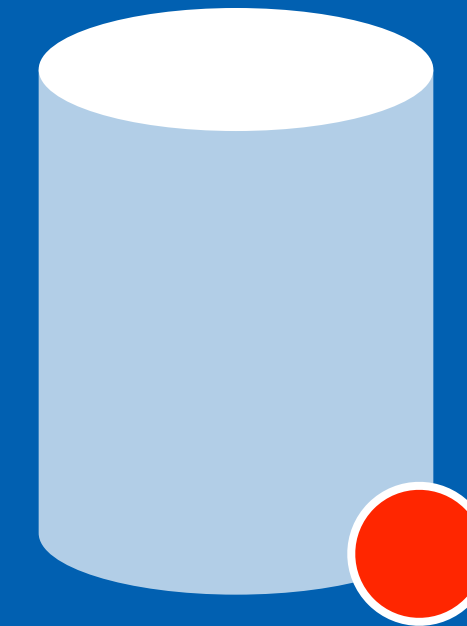
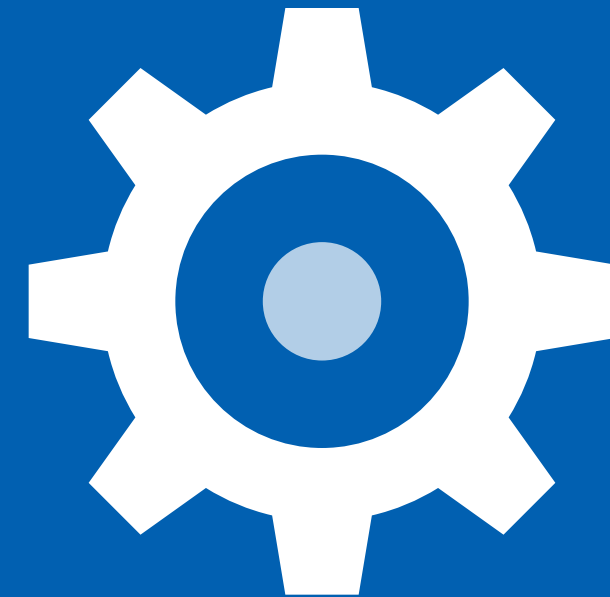
The webpage is closed and
the service worker is sleeping



The server has new
information for the user

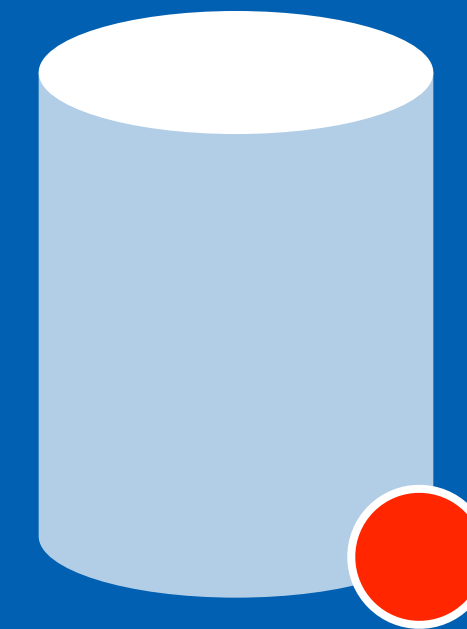
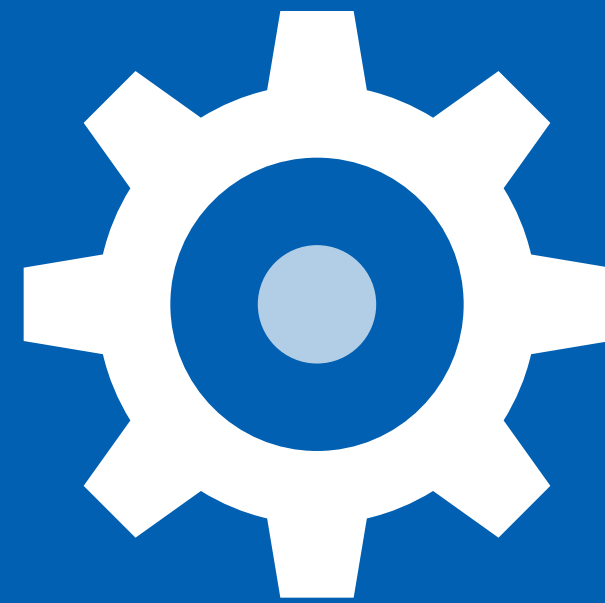


The server sends a message to the push server using the Web Push protocol

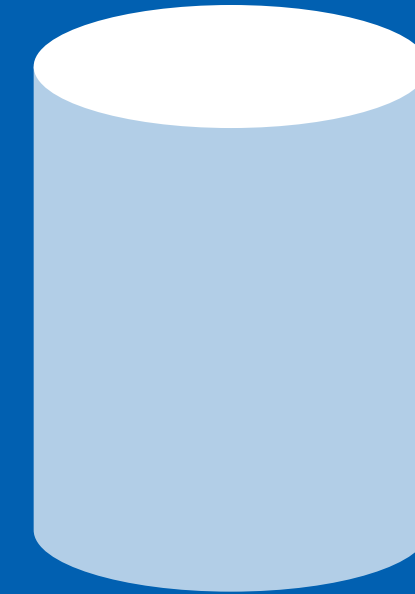
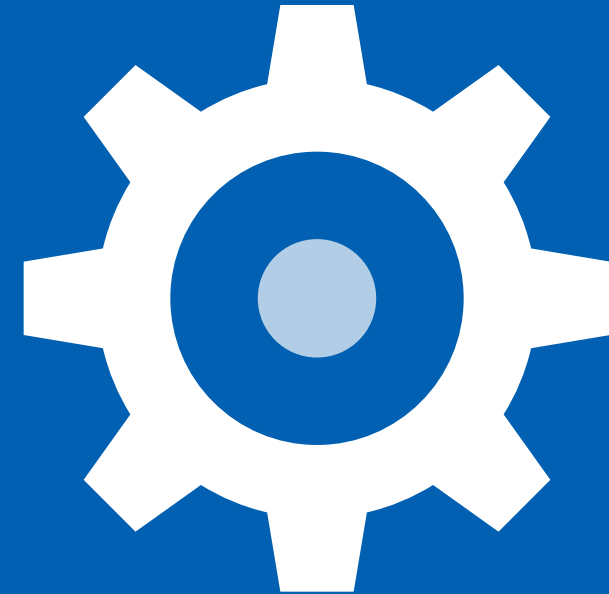


The push server wakes up
the service worker

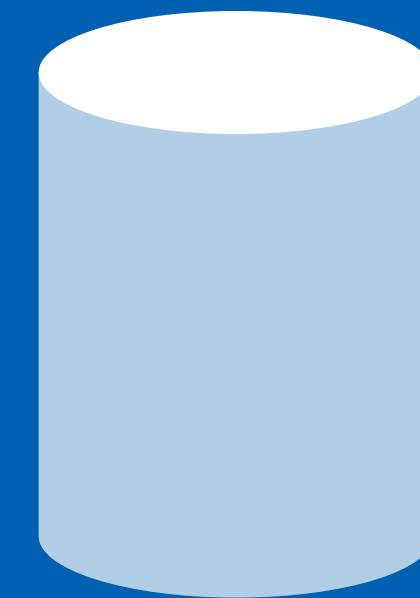
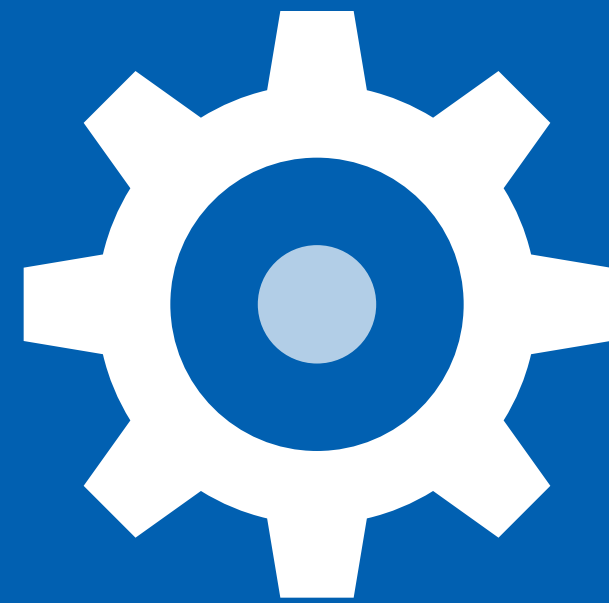




```
self.addEventListener('push', function(event) {  
    // We received a push message  
});
```

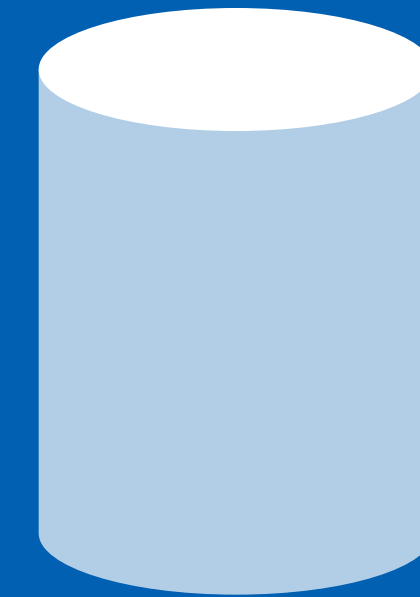


(optional)



```
self.registration.showNotification('Attention!', {  
  body: 'Push message received',  
  icon: 'icon.png'  
});
```

(optional)

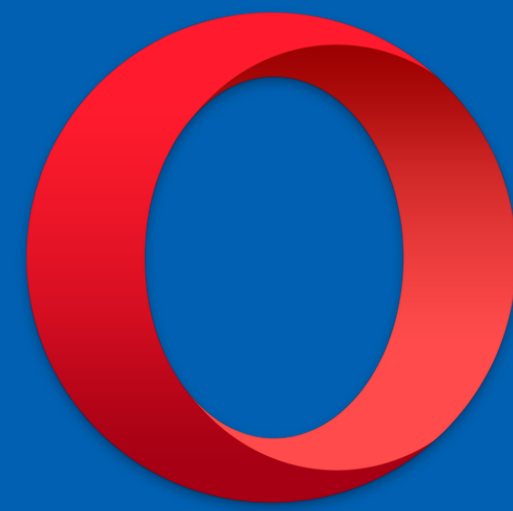


The webpage is still closed and
the service worker is sleeping again

BROWSER SUPPORT



Chrome 42



Opera 30



Firefox 44



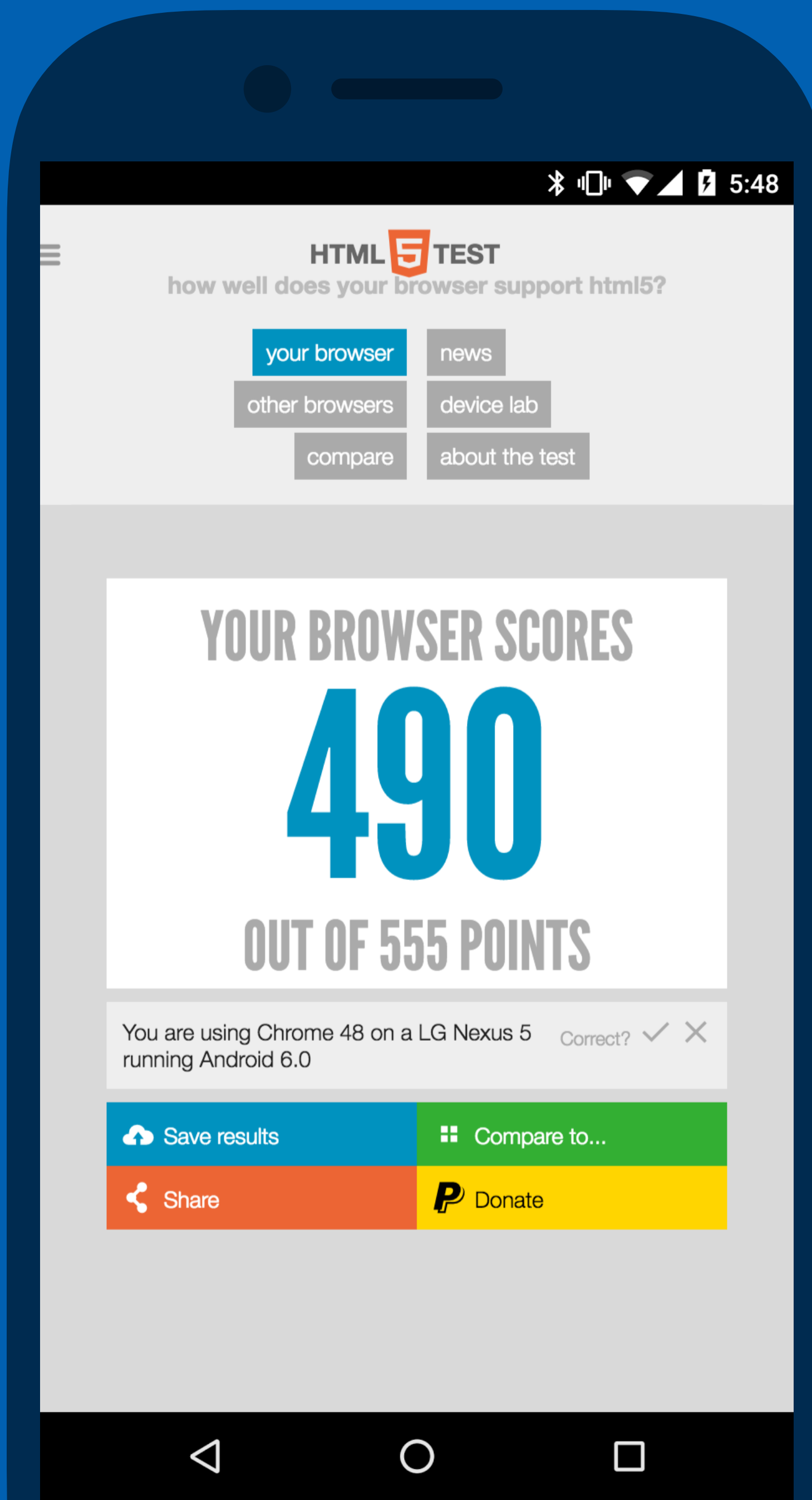
Samsung 4



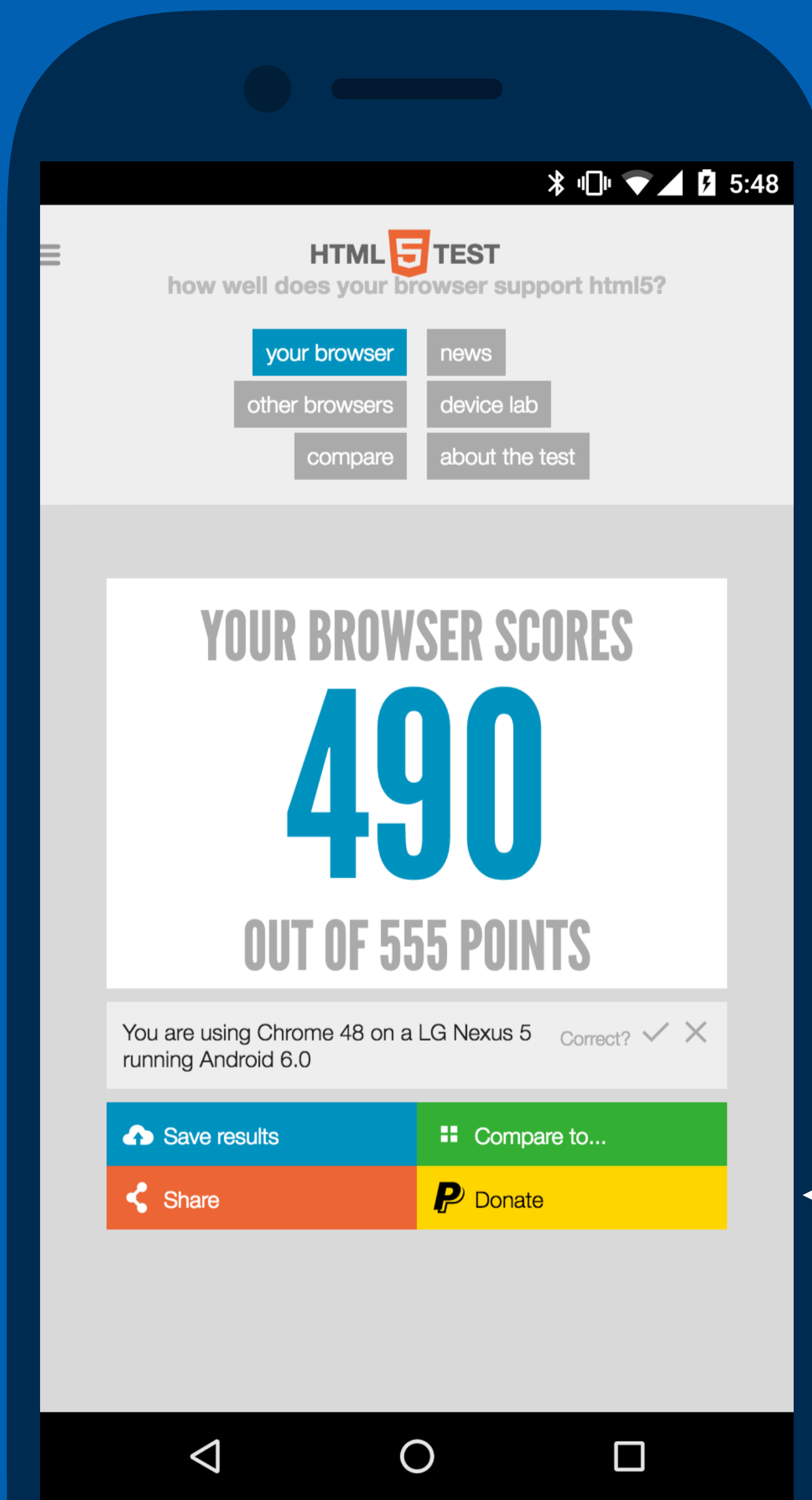
Edge
(behind flag)

WEB PAYMENTS

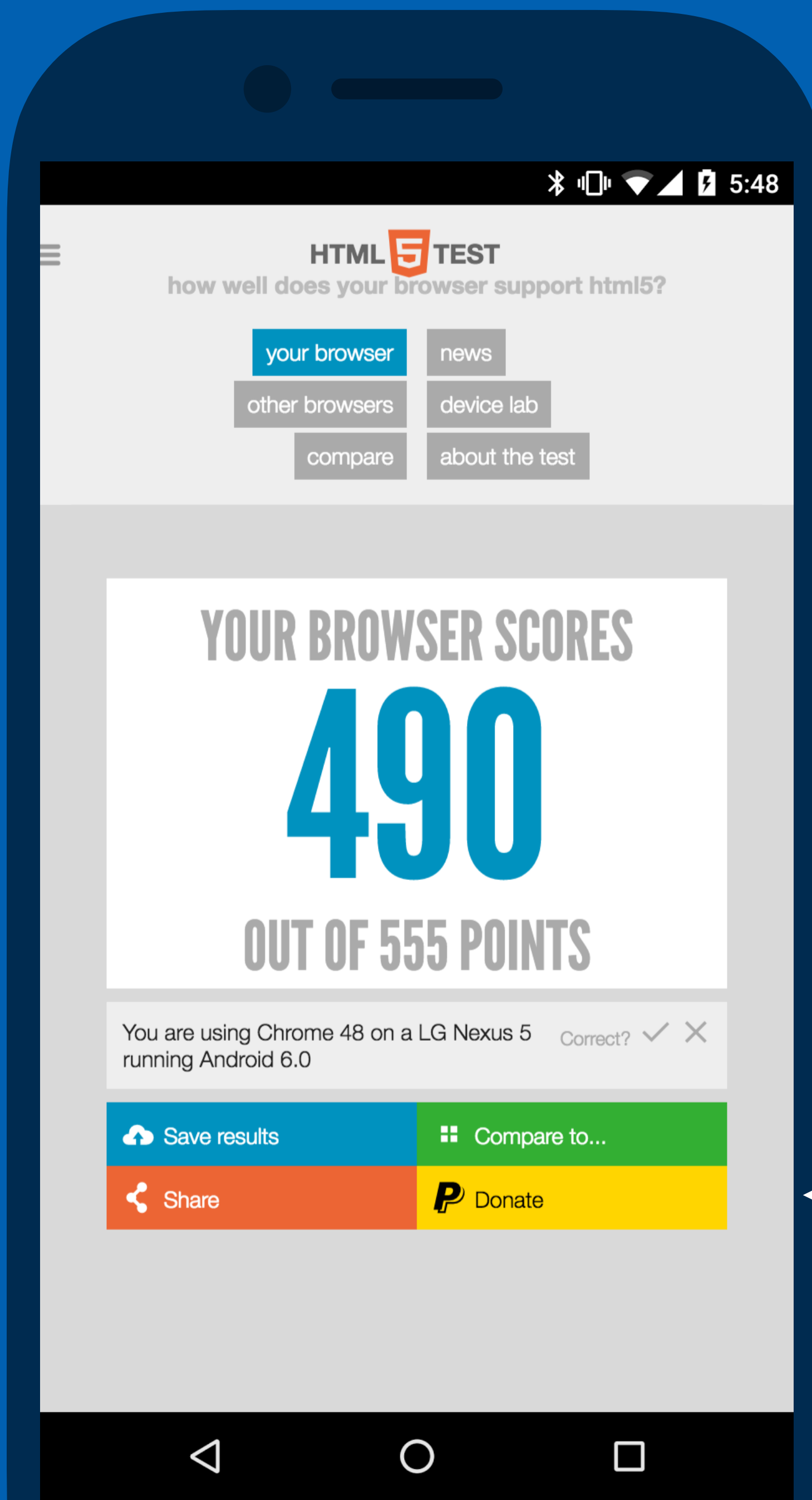




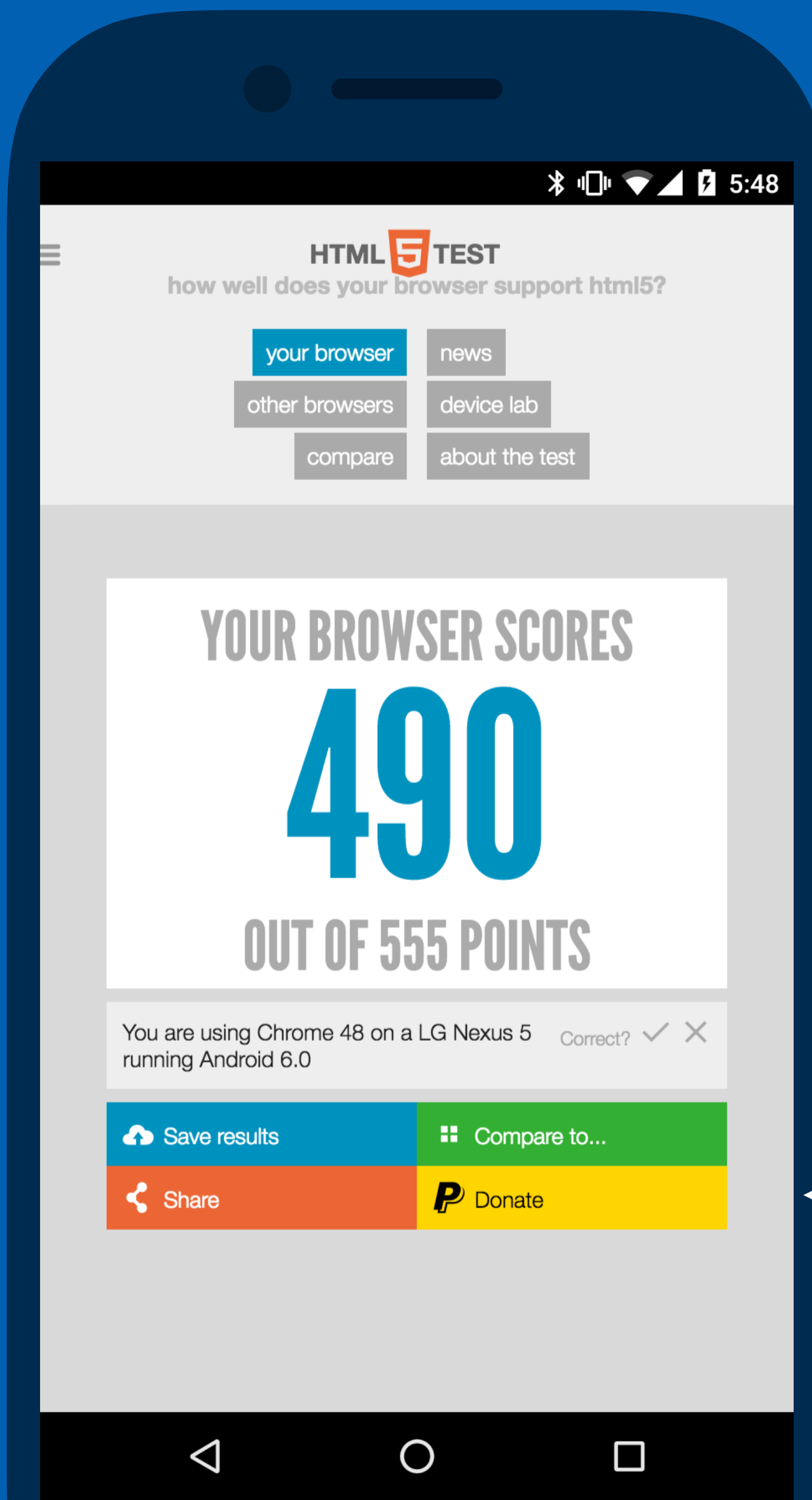
Start payment process by clicking a button in your app



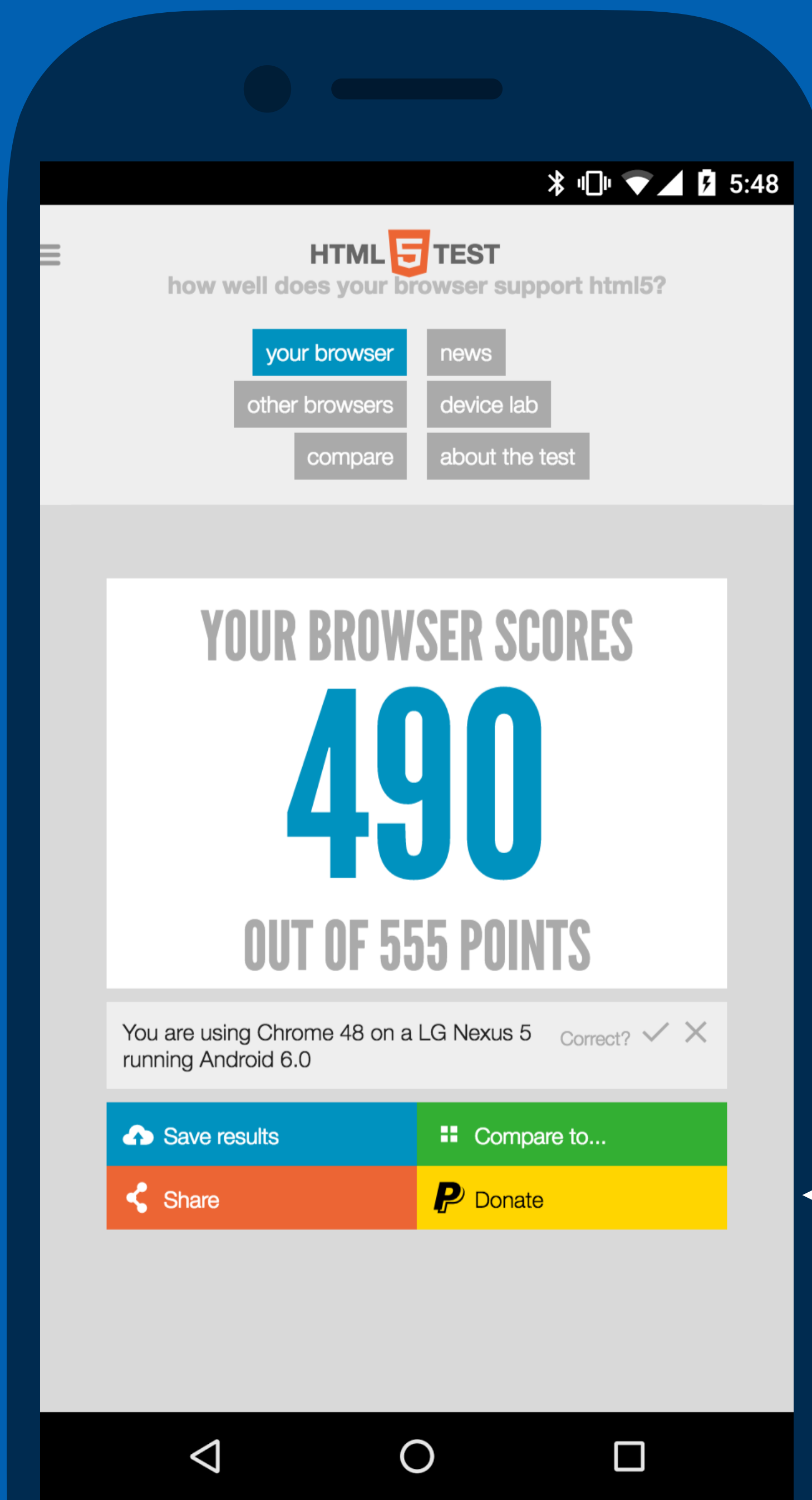
```
var methodData = [  
  {  
    supportedMethods: ["visa", "mastercard"]  
  }  
];
```



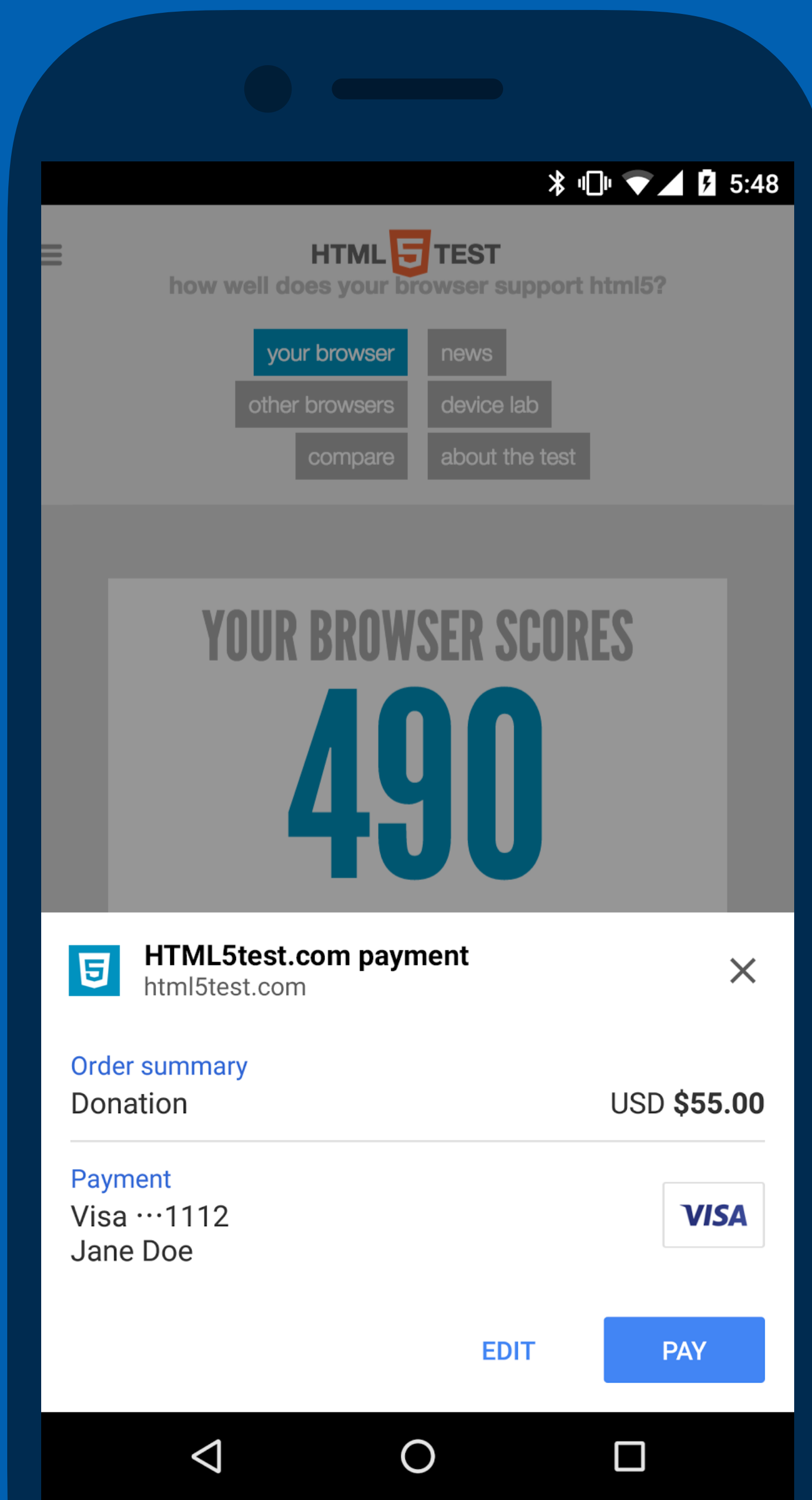
```
var details = {
  displayItems: [
    {
      label: "Donation",
      amount: { currency: "USD", value : "55.00" }
    }
  ],
  total: {
    label: "Total",
    amount: { currency: "USD", value : "55.00" }
  }
};
```



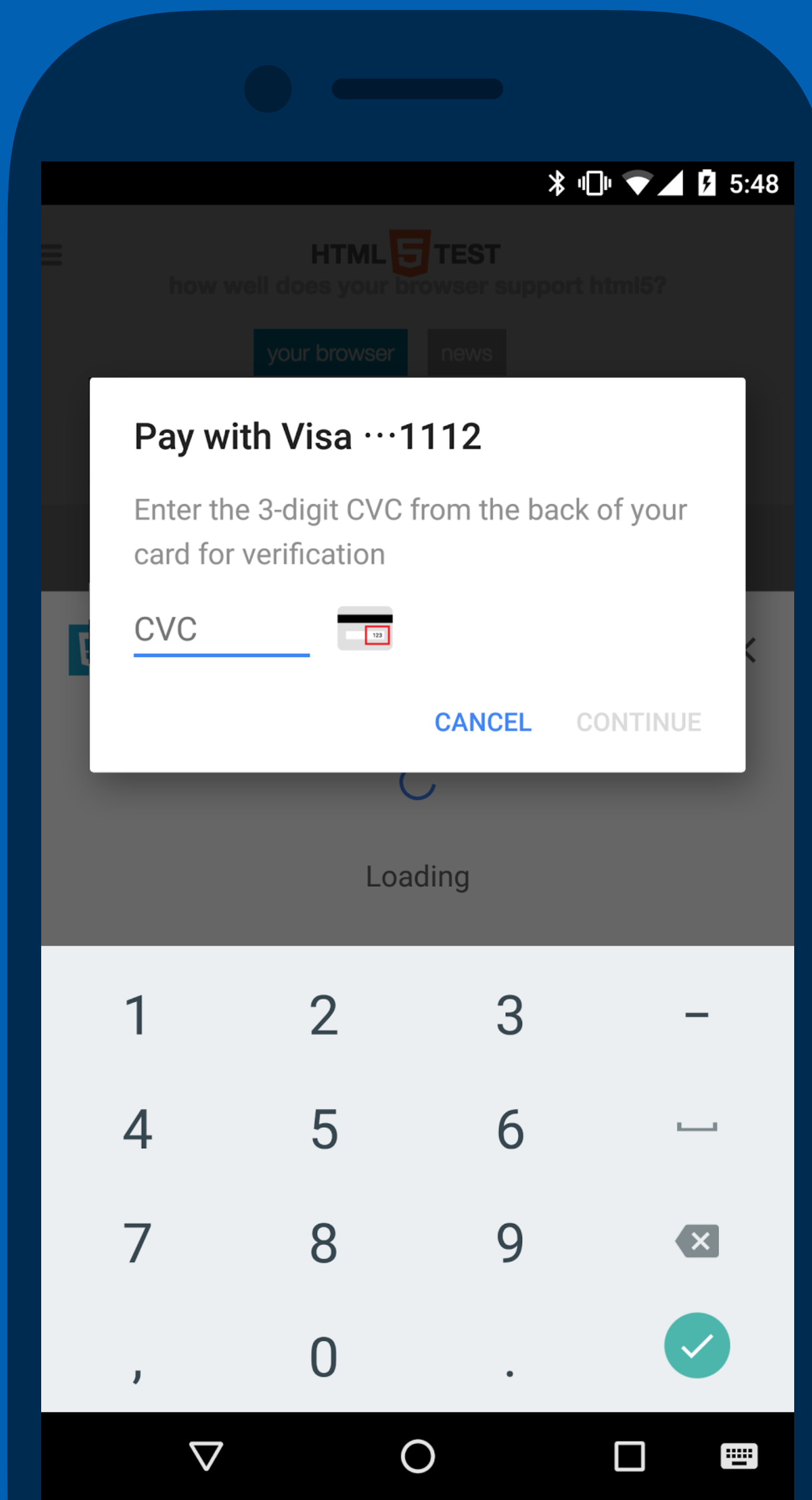
```
var request = new PaymentRequest(  
  methodData, // required payment method data  
  details     // required transaction information  
);
```



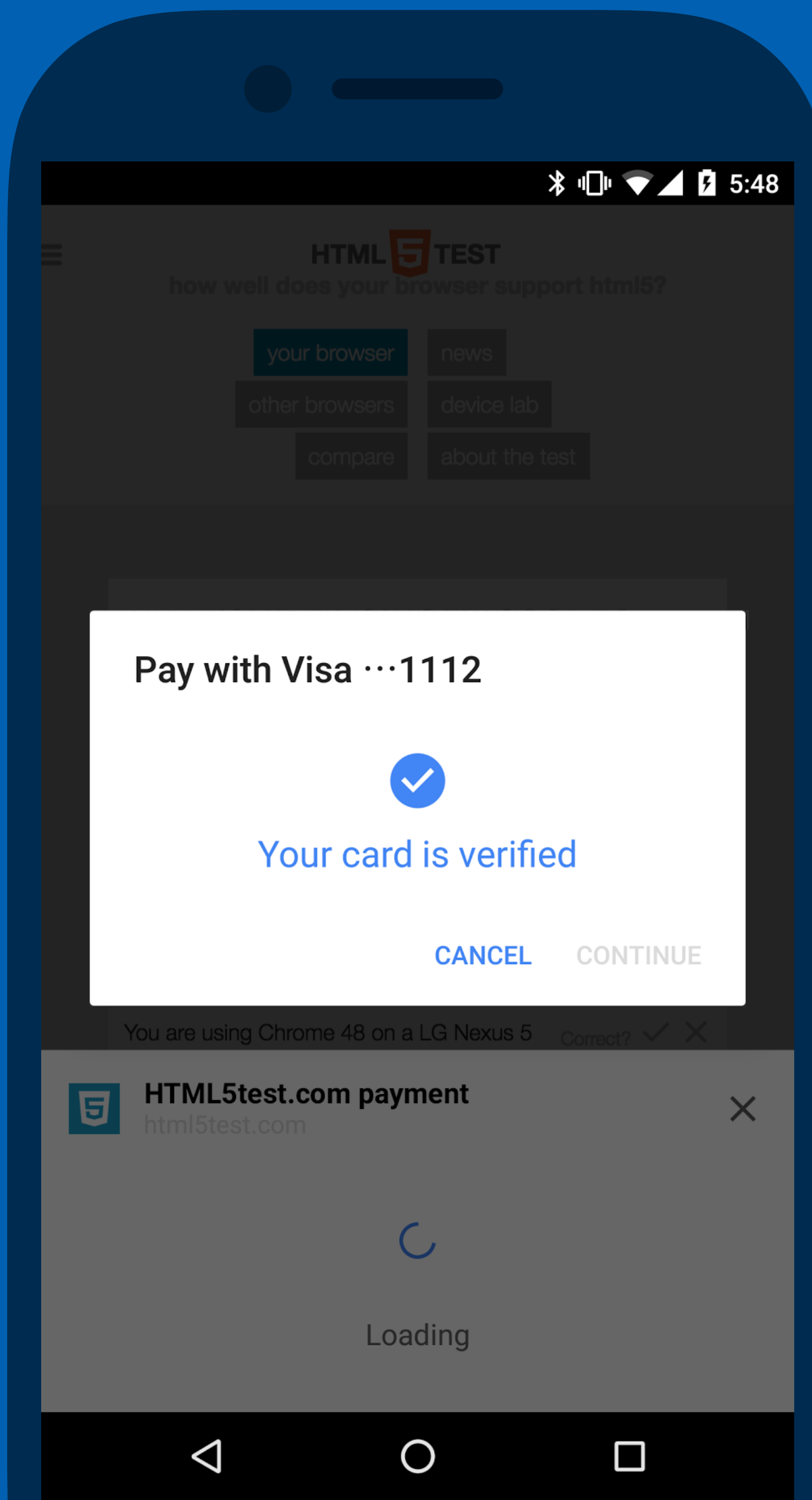
```
request.show().then(function(response) {  
    // success  
}).catch(function(err) {  
    // failed  
});
```



Select your payment method or use the default



Enter your CVC code or
confirm with your fingerprint



Done!

BROWSER SUPPORT



Chrome



Samsung 4
(coming soon)



Edge
(behind flag)



**BUT WHAT ABOUT
THE DESKTOP?**

**BROWSER DEVELOPMENT
IS DRIVEN BY MOBILE**

The Washington Post

Monday, August 8, 2016

BETA

Welcome to the Washington Post's Progressive Web App!

Top Stories Opinion Politics World Business Tec

This app brings near-instant load times and offline reading capability to mobile browsers. Please open on a phone to check it out!

Send link to phone

BUT...



NATIVE PWA SUPPORT IN THE WINDOWS STORE

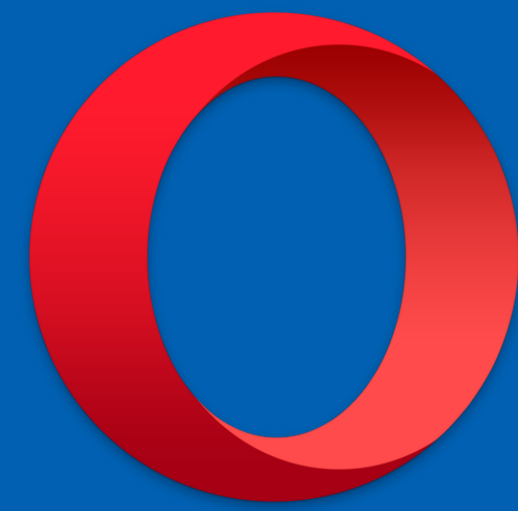


NATIVE PWA SUPPORT IN THE WINDOWS STORE



**BUT WHAT ABOUT
APPLE?**

THIS IS NOT A GOOGLE THING



BUT...



THE OLD HACKS STILL WORK

**MAYBE, HOPEFULLY, POSSIBLY
THIS WILL CHANGE IN THE FUTURE**

OR NOT





A red baseball cap with white text. The text is arranged in two lines: "MAKE WEB APPS" on the top line and "GREAT AGAIN" on the bottom line. The cap has a curved brim and a small button on top.

MAKE WEB APPS
GREAT AGAIN

THANK YOU!

@HTML5TEST



PROGRESSIVE WEB APPS CODE LAB

14:00 - 15:30



HALFSTACK

JAVASCRIPT. IN A PUB. 18 NOV 2016

18 NOVEMBER, LONDON

Dylan Schiemann, Christian Heilmann,
Mark Wubben, Jonathan Fielding
and me