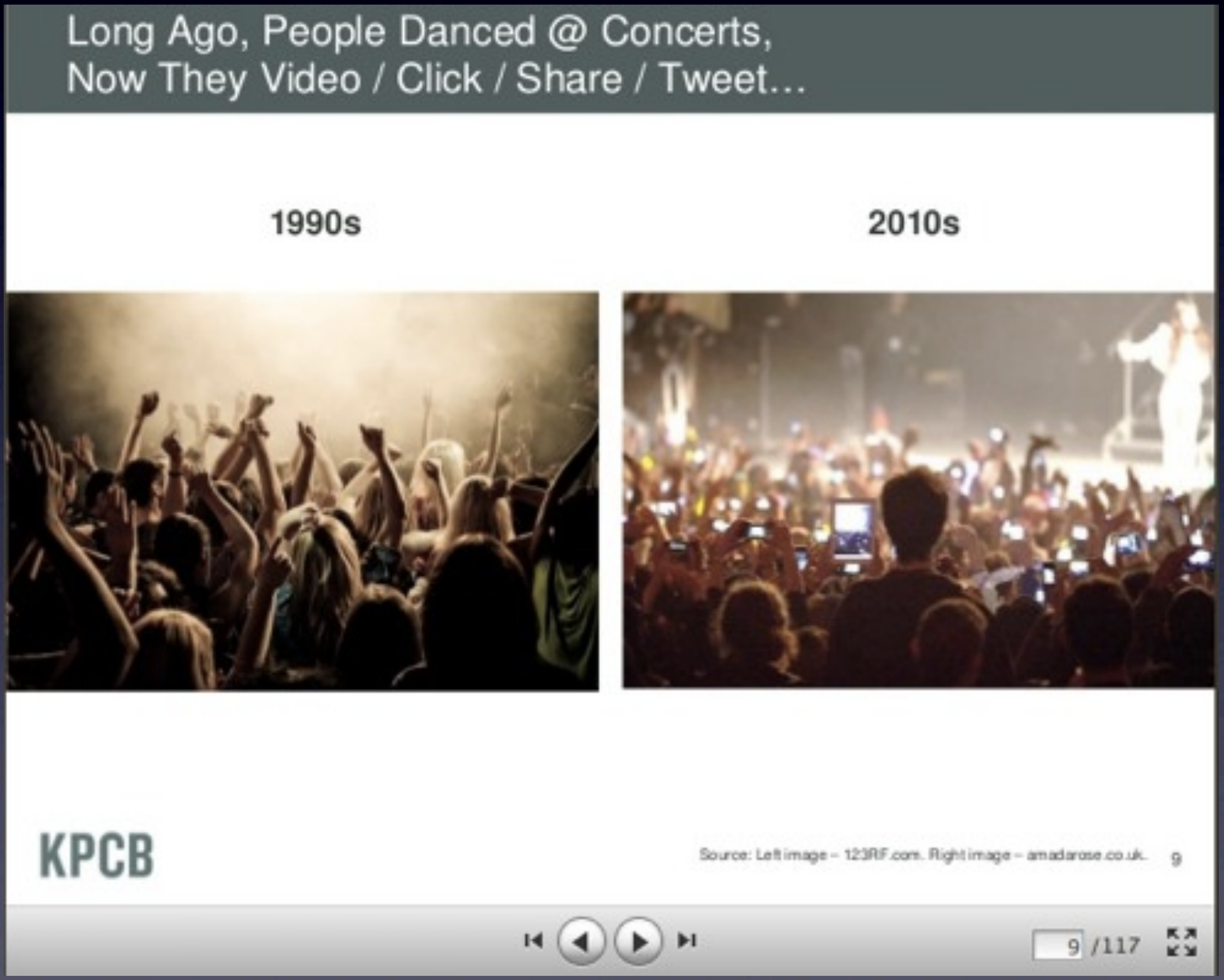
A Trip to the New WWW

with Chicago Boss

Who?

- Berner Setterwall
- Works at Campanja
- Do ad click optimization for profit
- Customers such as: Netflix

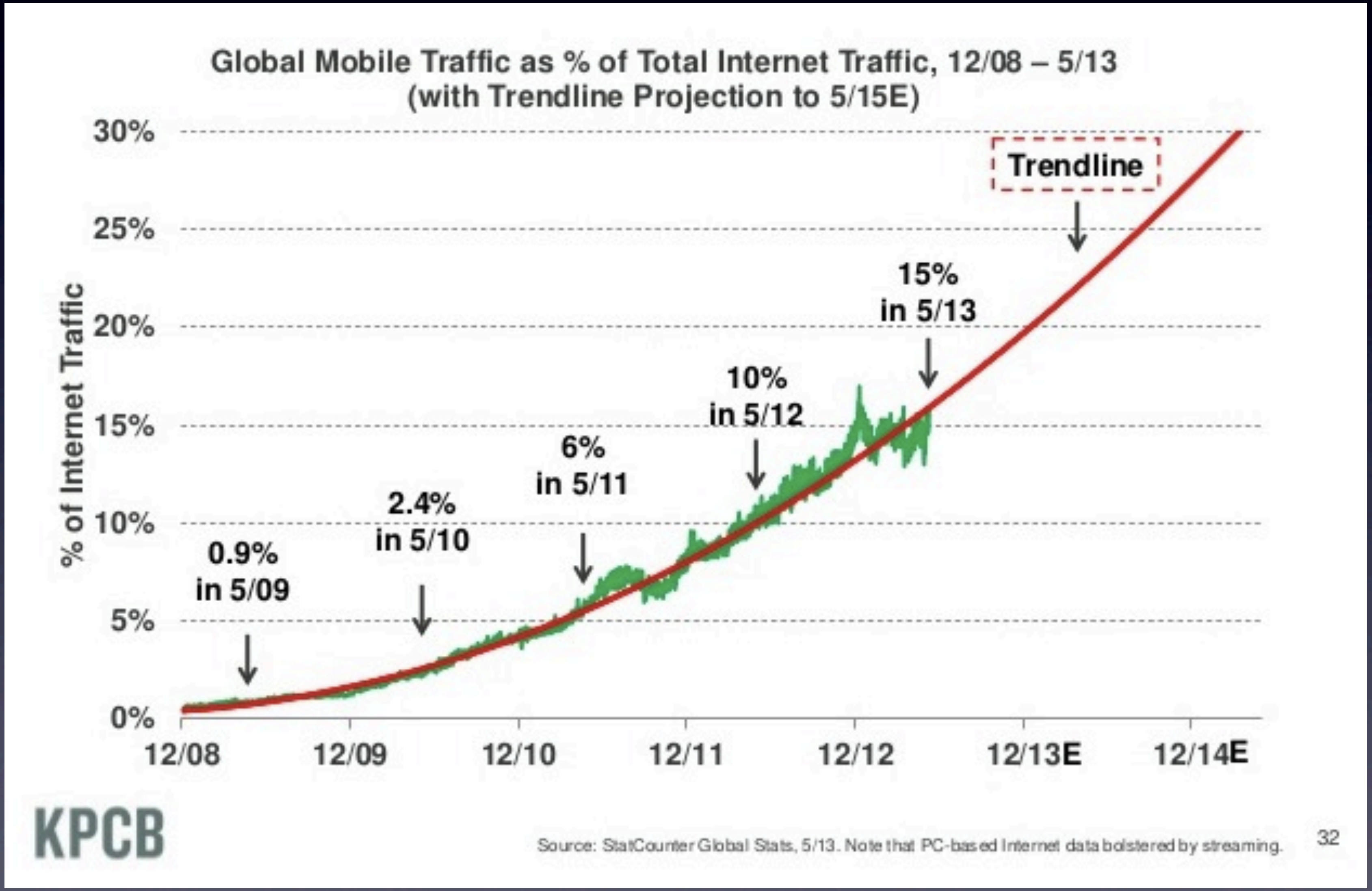
Macro trends on internet today



Long Ago, People Danced @ Concerts,
Now They Video / Click / Share / Tweet…

Source: Left image – 123RF.com. Right image – amadarose.co.uk. 9

Macro trends on internet today



Global Mobile Traffic as % of Total Internet Traffic, 12/08 – 5/13 (with Trendline Projection to 5/15E)

Source: StatCounter Global Stats, 5/13. Note that PC-based Internet data bolstered by streaming.

Macro trends on internet today

- Mobile ..
- Mobile first?
- Speed!

CSS Frameworks - Responsive for free

Introducing Bootstrap.

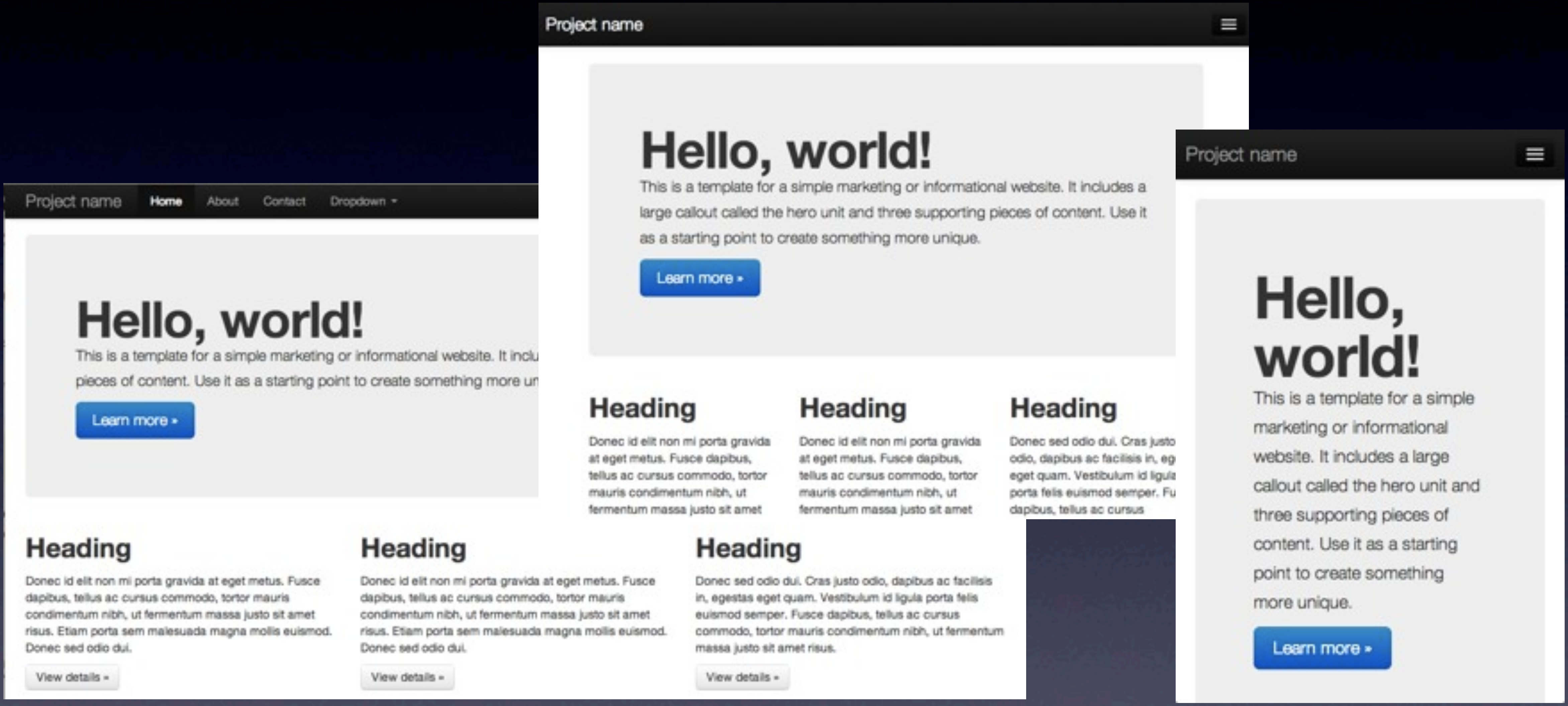
Need reasons to love Bootstrap? Look no further.

By nerds, for nerds.

Made for everyone.

Packed with features.

Bootstrap examples



Project name Home About Contact Dropdown ▾

Hello, world!

This is a template for a simple marketing or informational website. It inclu

pieces of content. Use it as a starting point to create something more un

Learn more »

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

View details »

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

View details »

Heading

Donec sed odio dui. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Vestibulum id ligula porta felis euismod semper. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus.

View details »

Project name

Hello, world!

This is a template for a simple marketing or informational website. It includes a large callout called the hero unit and three supporting pieces of content. Use it as a starting point to create something more unique.

Learn more »

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet

Heading

Donec sed odio dui. Cras justo odio, dapibus ac facilisis in, eg eget quam. Vestibulum id ligula porta felis euismod semper. Fu dapibus, tellus ac cursus

Project name

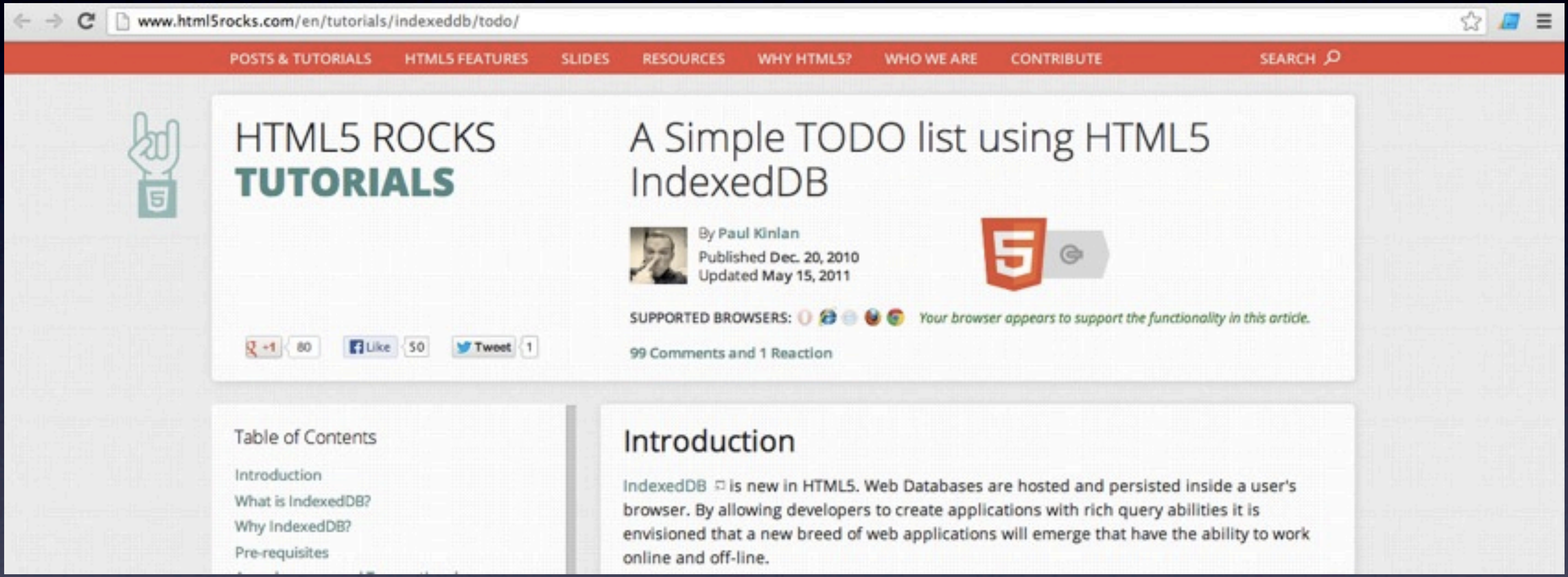
Hello, world!

This is a template for a simple marketing or informational website. It includes a large callout called the hero unit and three supporting pieces of content. Use it as a starting point to create something more unique.

Learn more »

Lots of action around JS

HTML5 ROCKS



HTML5 ROCKS
TUTORIALS

A Simple TODO list using HTML5 IndexedDB

By Paul Kinlan
Published Dec. 20, 2010
Updated May 15, 2011

SUPPORTED BROWSERS: *Your browser appears to support the functionality in this article.*

99 Comments and 1 Reaction

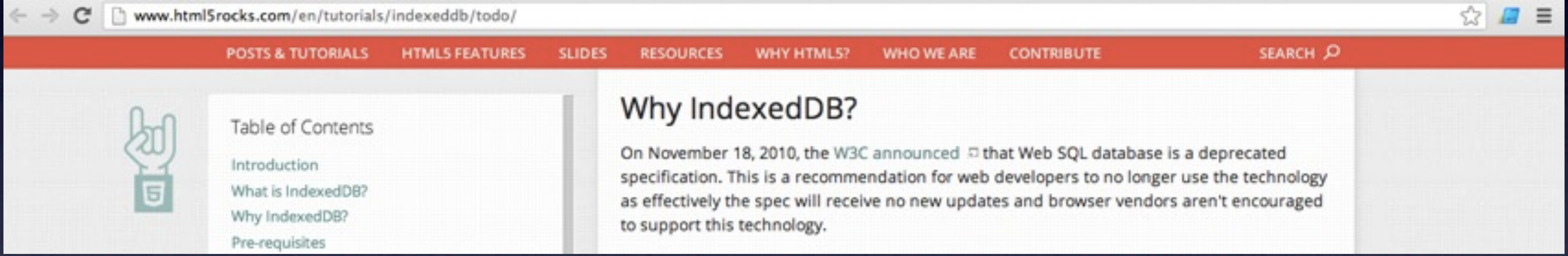
Table of Contents

- Introduction
- What is IndexedDB?
- Why IndexedDB?
- Pre-requisites

Introduction

IndexedDB is new in HTML5. Web Databases are hosted and persisted inside a user's browser. By allowing developers to create applications with rich query abilities it is envisioned that a new breed of web applications will emerge that have the ability to work online and off-line.

HTML5 ROCKS



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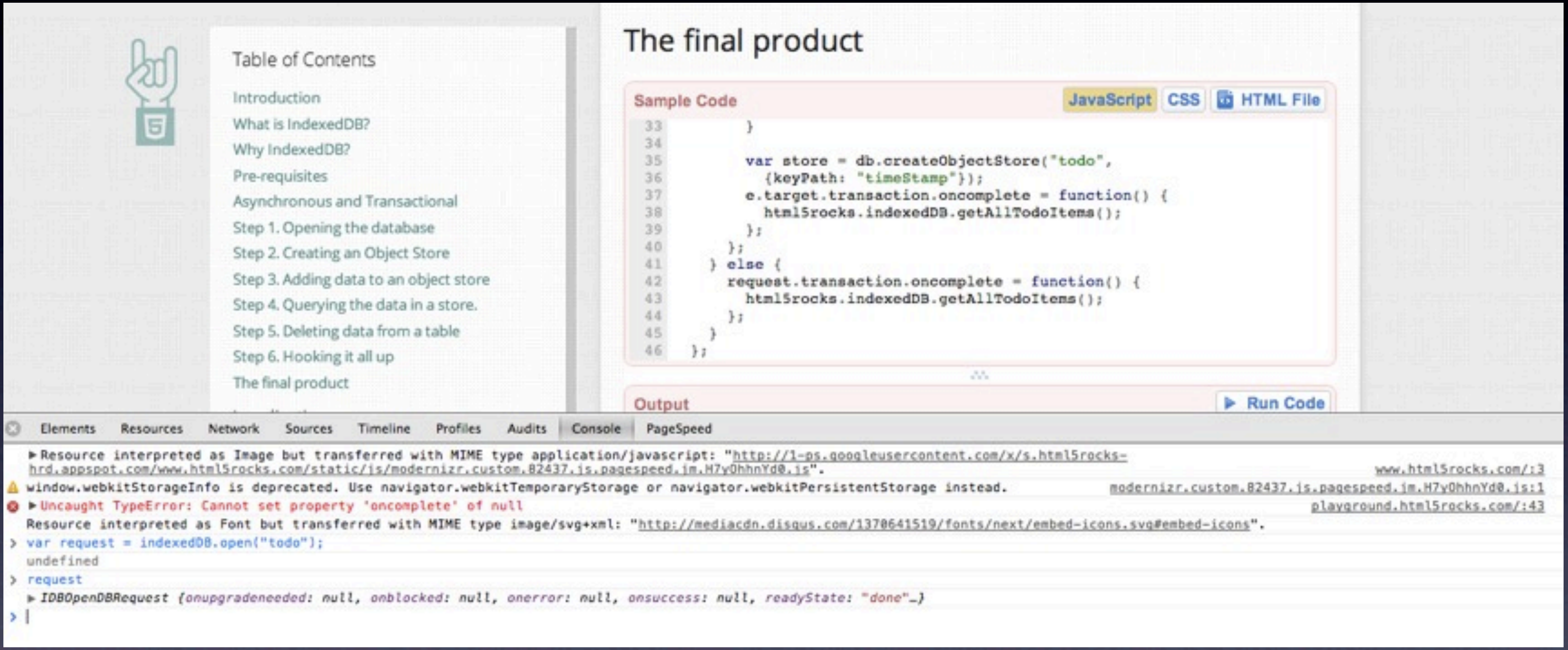
Introduction
What is IndexedDB?
Why IndexedDB?
Pre-requisites

Why IndexedDB?

On November 18, 2010, the W3C announced that Web SQL database is a deprecated specification. This is a recommendation for web developers to no longer use the technology as effectively the spec will receive no new updates and browser vendors aren't encouraged to support this technology.

HTML5 ROCKS



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The final product

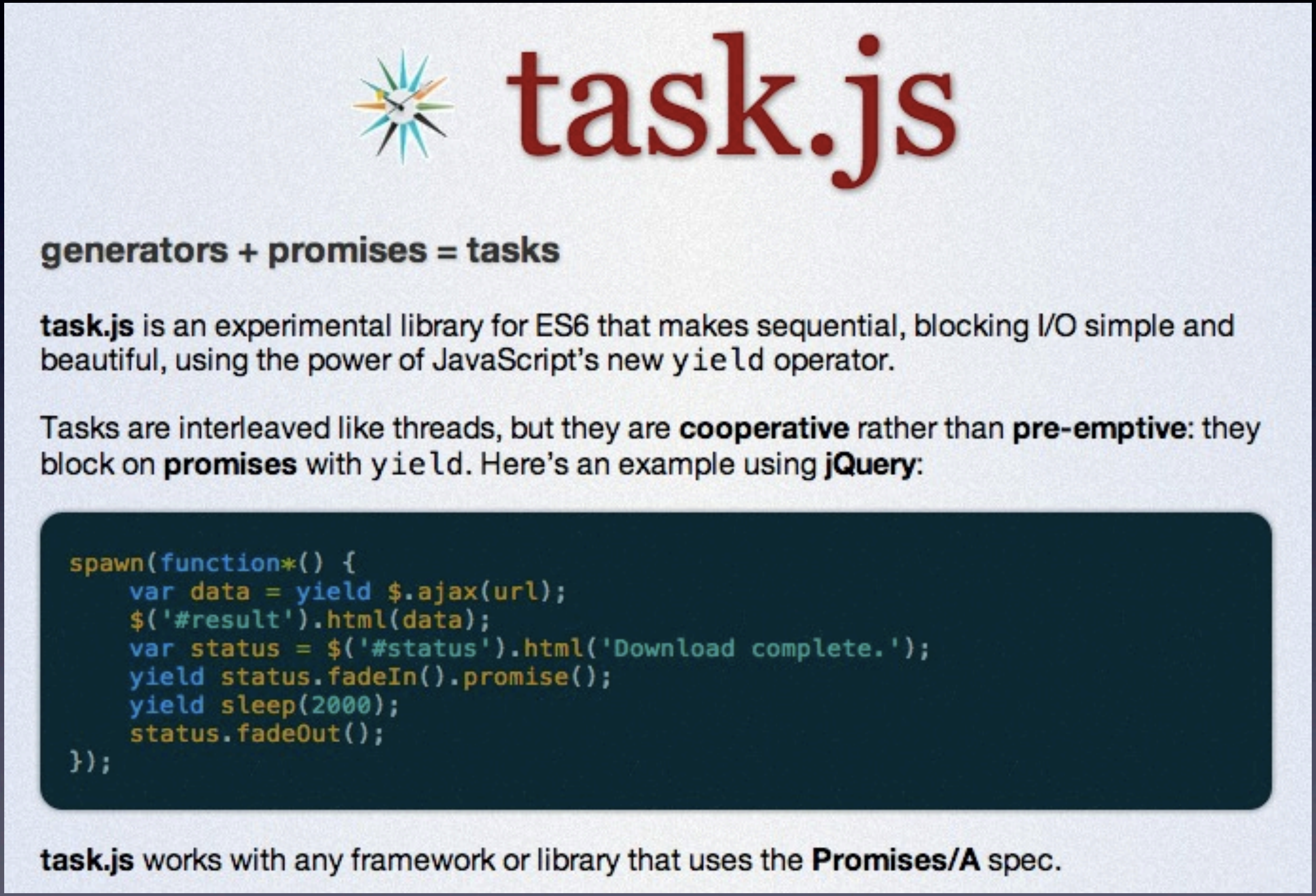
Sample Code

```
        }

        var store = db.createObjectStore("todo",
          {keyPath: "timeStamp"});
        e.target.transaction.oncomplete = function() {
          html5rocks.indexedDB.getAllTodoItems();
        };
      };
    } else {
      request.transaction.oncomplete = function() {
        html5rocks.indexedDB.getAllTodoItems();
      };
    }
  };
```

Output

```
▶Resource interpreted as Image but transferred with MIME type application/javascript: "http://1-ps.googleusercontent.com/x/s.html5rocks-
hrd.appspot.com/www.html5rocks.com/static/js/modernizr.custom.82437.js.pagespeed.jm.H7yOhhnYd0.js".                      www.html5rocks.com/:3
window.webkitStorageInfo is deprecated. Use navigator.webkitTemporaryStorage or navigator.webkitPersistentStorage instead.        modernizr.custom.82437.js.pagespeed.jm.H7yOhhnYd0.js:1
▶Uncaught TypeError: Cannot set property 'oncomplete' of null                                                      playground.html5rocks.com/:43
Resource interpreted as Font but transferred with MIME type image/svg+xml: "http://mediacdn.disqus.com/1370641519/fonts/next/embed-icons.svg#embed-icons".
> var request = indexedDB.open("todo");
undefined
> request
▶IDBOpenDBRequest {onupgradeneeded: null, onblocked: null, onerror: null, onsuccess: null, readyState: "done"…}
> |
```

spawn in the browser?



task.js

generators + promises = tasks

task.js is an experimental library for ES6 that makes sequential, blocking I/O simple and beautiful, using the power of JavaScript's new `yield` operator.

Tasks are interleaved like threads, but they are **cooperative** rather than **pre-emptive**: they block on **promises** with `yield`. Here's an example using **jQuery**:

```
spawn(function*() {
    var data = yield $.ajax(url);
    $('#result').html(data);
    var status = $('#status').html('Download complete.');
    yield status.fadeIn().promise();
    yield sleep(2000);
    status.fadeOut();
});
```

task.js works with any framework or library that uses the **Promises/A** spec.

Canvas / WebGL

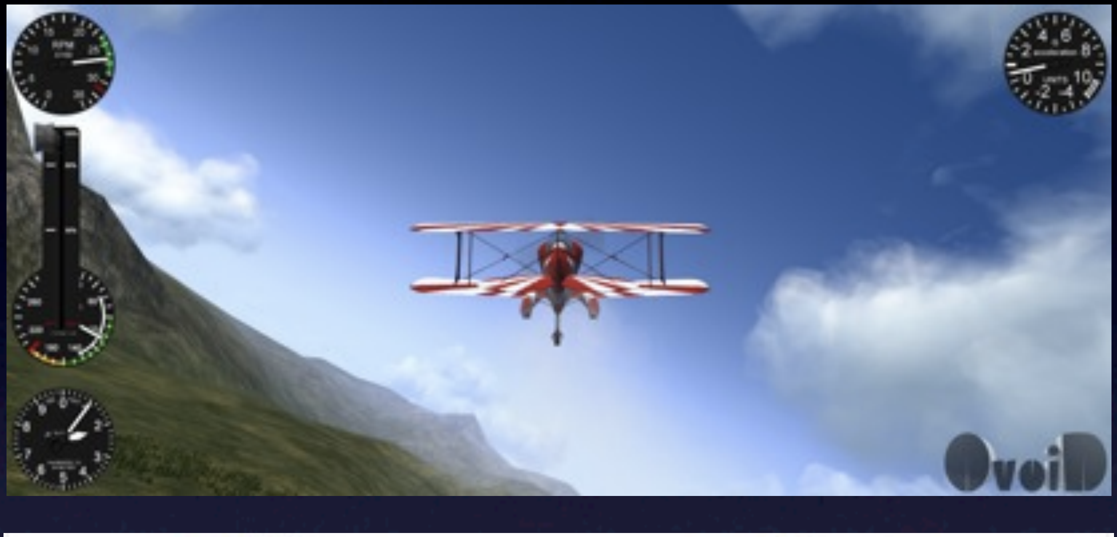
2D

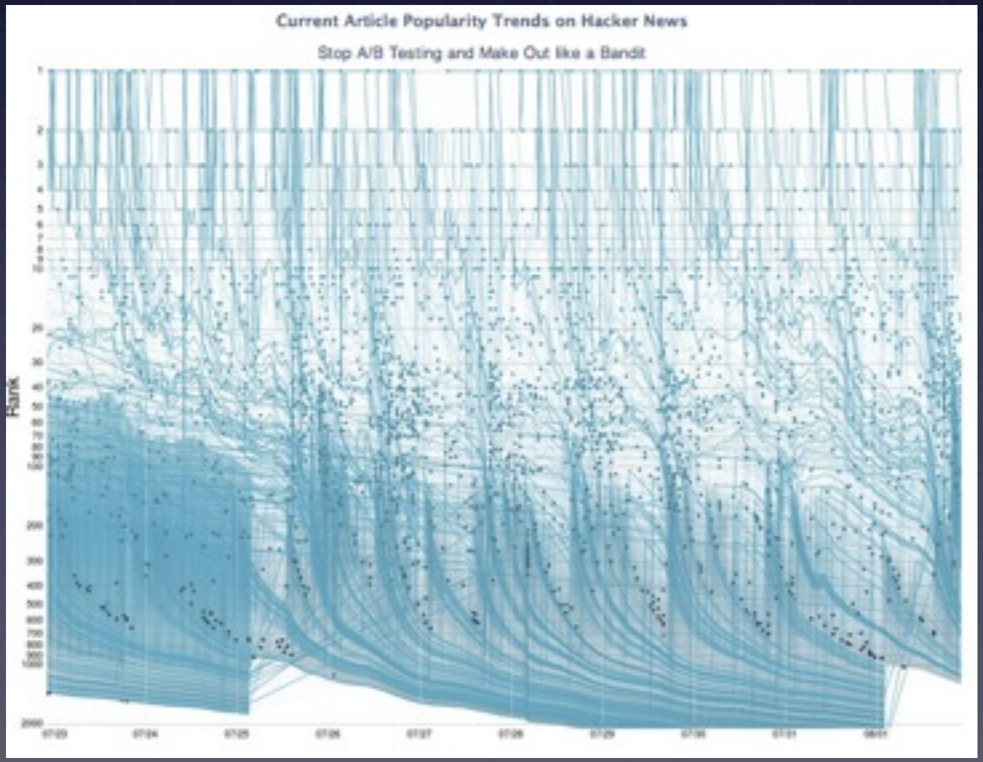
FLAT SURFACE SHADER

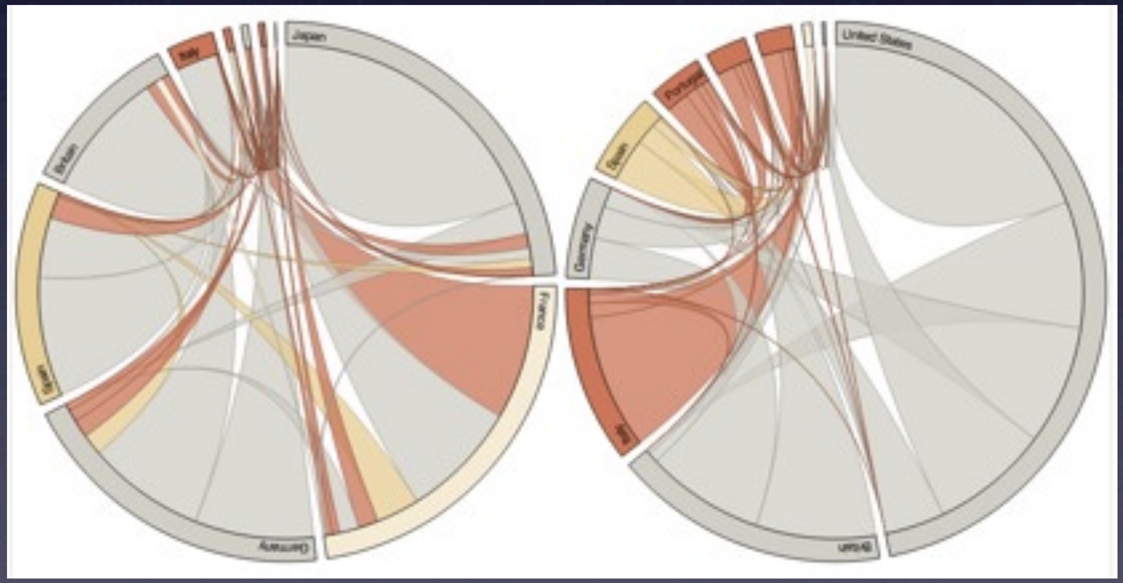
Admit it, 3D is cool. But, you know what's cooler? 2D. I love WebGL, but unfortunately it doesn't work everywhere.

This lighting simulation can be configured to use either the 2D context of a canvas element or an array of SVG polygons to draw the triangles. It also utilises native Float32Arrays to store numerical data for highly optimised calculations.

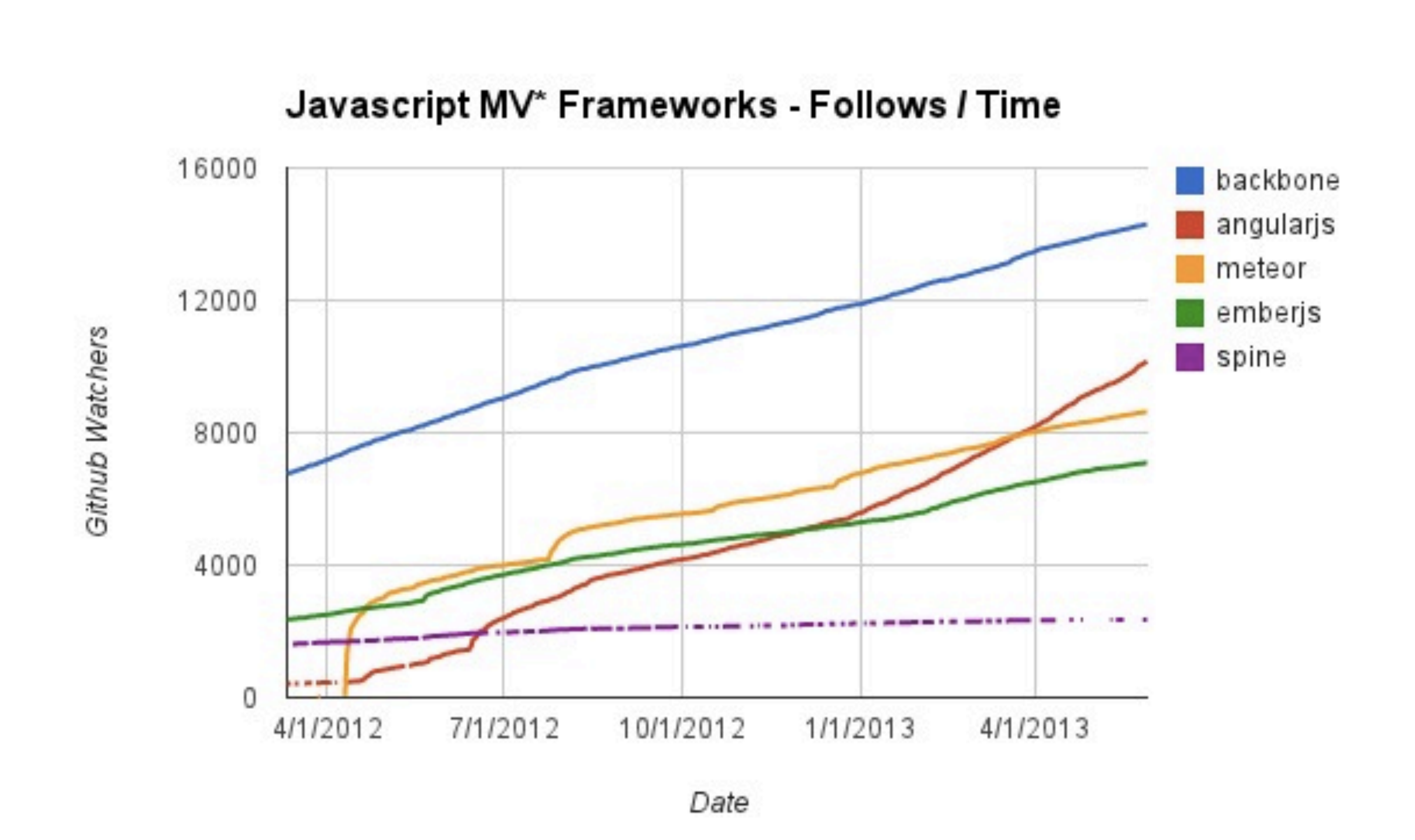
This is a collaborative effort between Matthew Wagerfield and Tobias van Schneider – a couple of pandas trying to make the web a more magical place.



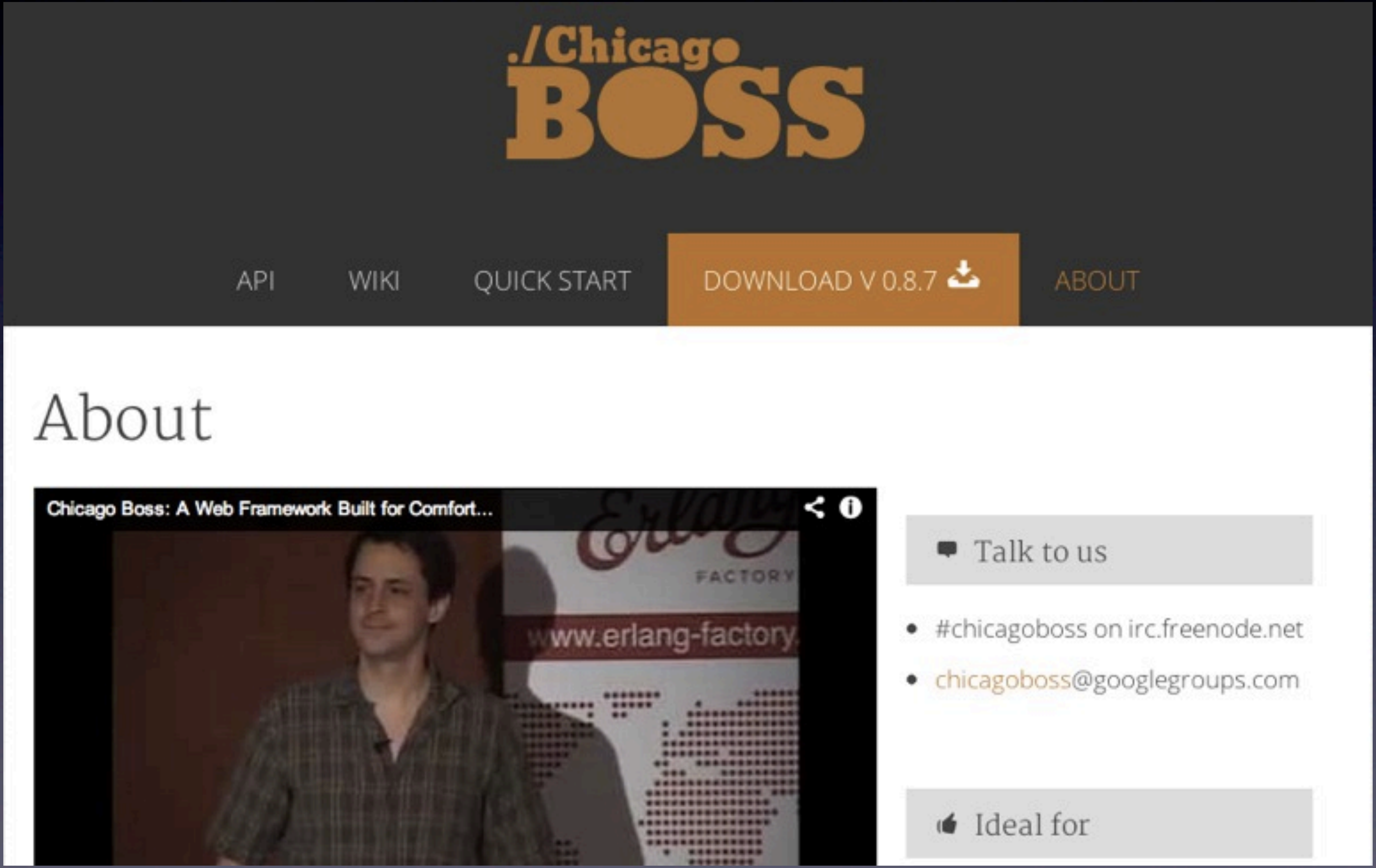




Growth of AngularJS



Enter Chicago Boss



About

Talk to us

- #chicagoboss on irc.freenode.net
- chicagoboss@googlegroups.com

Ideal for

Promises to: designers

- Easy server–side templates
- Familiar Rails conventions
- Painless Javascript integration
- Easy JSON generation
- Django & Jade template support

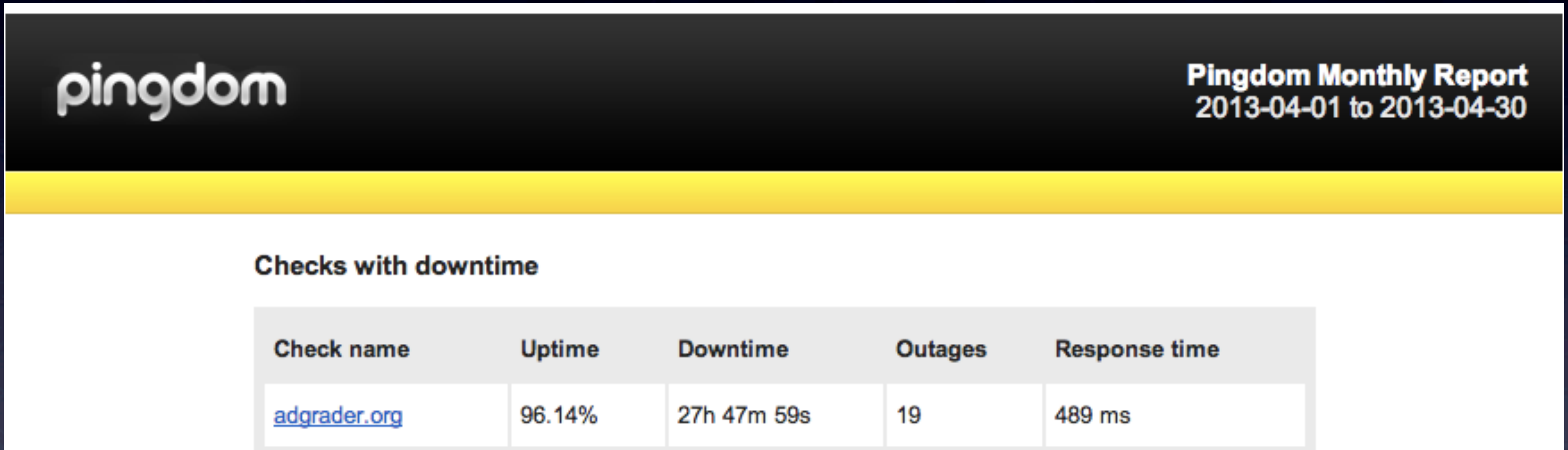
Promises to: developers

- 100% asynchronous I/O
- WebSocket & long-poll support
- No nested callbacks
- Language–integrated query syntax
- Fast, in-memory functional tests
- Support for Erlang and Elixir code

Promises to: admins

- Low RAM and CPU usage
- Cluster–wide, channel–based message queue
- Supports SQL and NoSQL databases
- Fast garbage collection
- Built-in email server

Does it deliver?

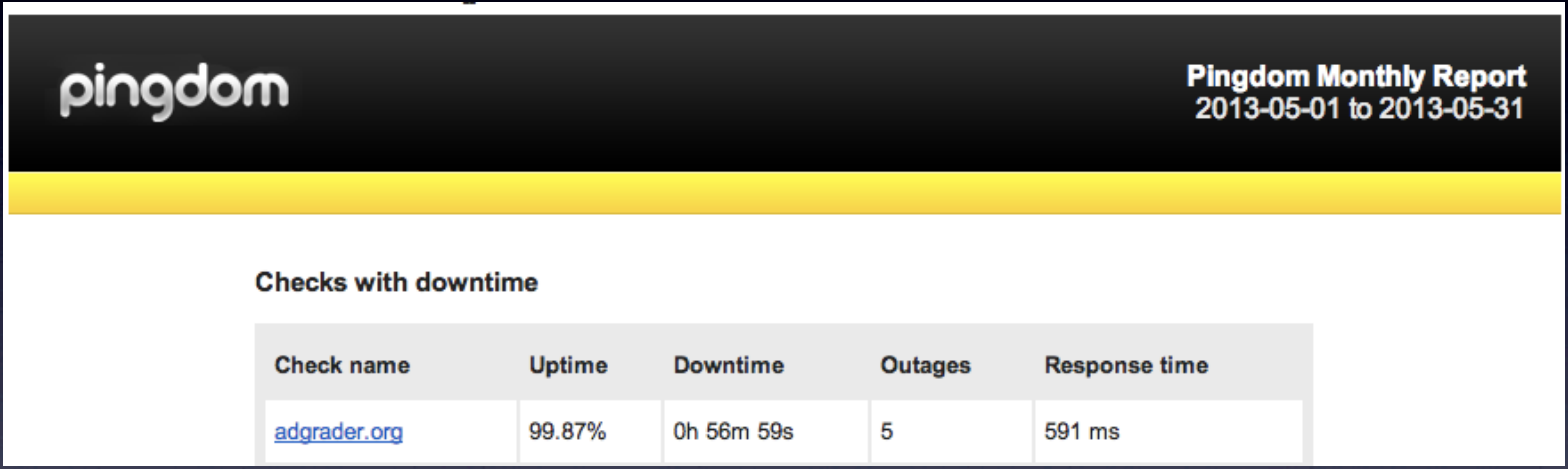


Pingdom Monthly Report
2013-04-01 to 2013-04-30

Checks with downtime

Check name	Uptime	Downtime	Outages	Response time
adgrader.org	96.14%	27h 47m 59s	19	489 ms

Does it deliver?

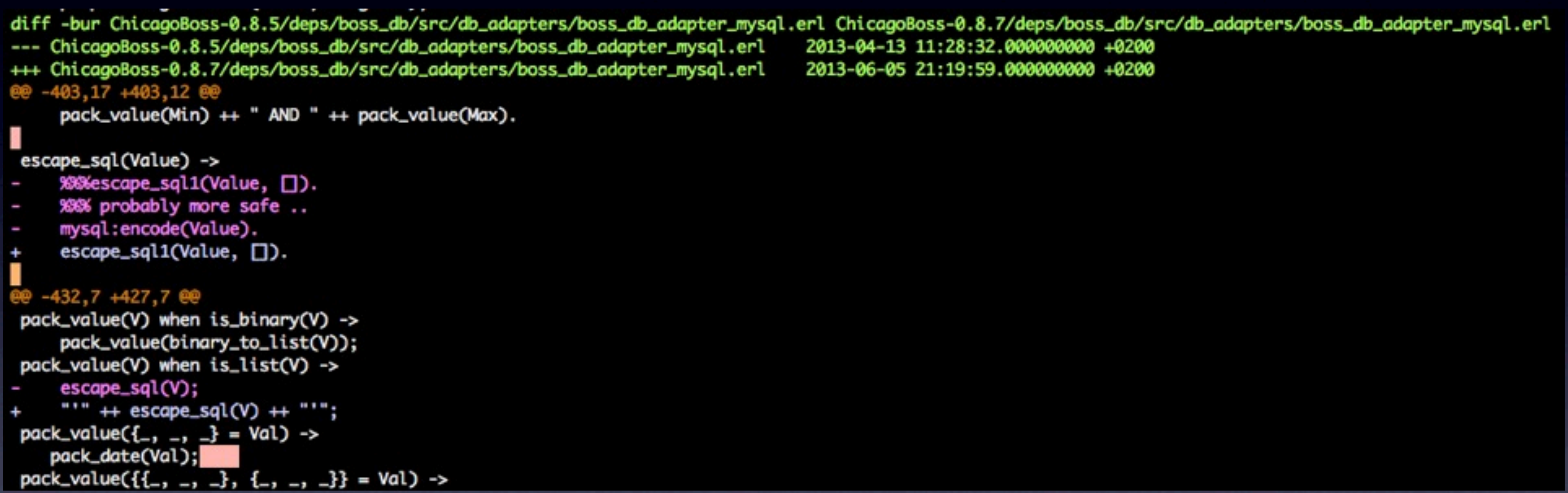


Pingdom Monthly Report
2013-05-01 to 2013-05-31

Checks with downtime

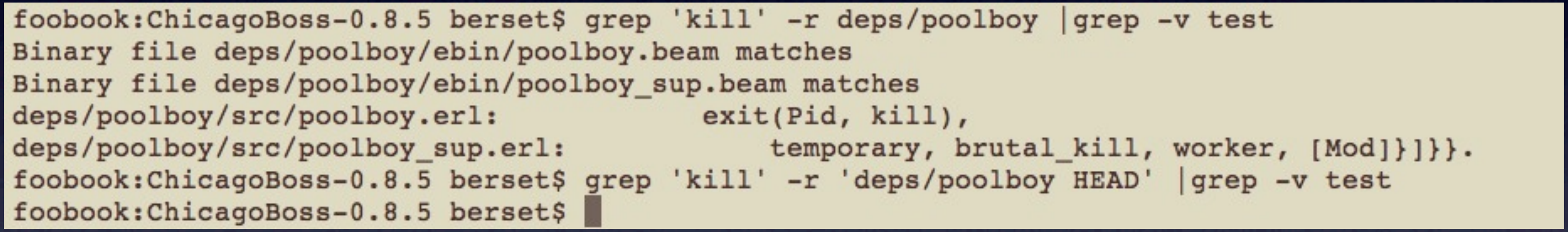
Check name	Uptime	Downtime	Outages	Response time
adgrader.org	99.87%	0h 56m 59s	5	591 ms

Rough edges: MySQL driver



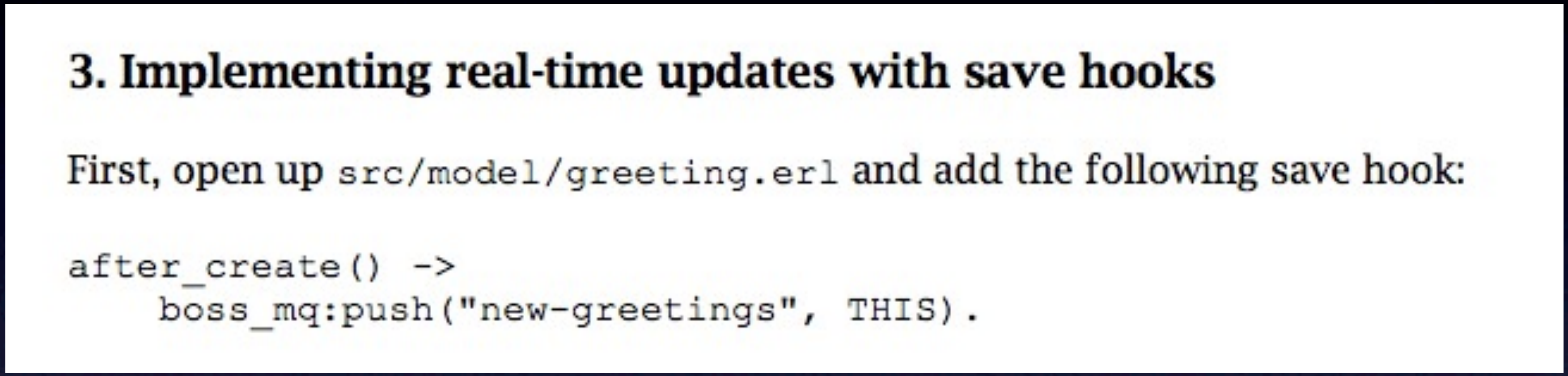
```
diff -bur ChicagoBoss-0.8.5/deps/boss_db/src/db_adapters/boss_db_adapter_mysql.erl ChicagoBoss-0.8.7/deps/boss_db/src/db_adapters/boss_db_adapter_mysql.erl
--- ChicagoBoss-0.8.5/deps/boss_db/src/db_adapters/boss_db_adapter_mysql.erl    2013-04-13 11:28:32.000000000 +0200
+++ ChicagoBoss-0.8.7/deps/boss_db/src/db_adapters/boss_db_adapter_mysql.erl    2013-06-05 21:19:59.000000000 +0200
@@ -403,17 +403,12 @@
     pack_value(Min) ++ " AND " ++ pack_value(Max).

 escape_sql(Value) ->
-    %%%escape_sql1(Value, []).
-    %%% probably more safe ..
-    mysql:encode(Value).
+    escape_sql1(Value, []).

@@ -432,7 +427,7 @@
 pack_value(V) when is_binary(V) ->
     pack_value(binary_to_list(V));
 pack_value(V) when is_list(V) ->
-    escape_sql(V);
+    "'" ++ escape_sql(V) ++ "'";
 pack_value({_, _, _} = Val) ->
    pack_date(Val);
 pack_value({{_, _, _}, {_, _, _}} = Val) ->
```

Rough edges: old deps



```
foobook:ChicagoBoss-0.8.5 berset$ grep 'kill' -r deps/poolboy |grep -v test
Binary file deps/poolboy/ebin/poolboy.beam matches
Binary file deps/poolboy/ebin/poolboy_sup.beam matches
deps/poolboy/src/poolboy.erl:            exit(Pid, kill),
deps/poolboy/src/poolboy_sup.erl:            temporary, brutal_kill, worker, [Mod]}]}}.
foobook:ChicagoBoss-0.8.5 berset$ grep 'kill' -r 'deps/poolboy HEAD' |grep -v test
foobook:ChicagoBoss-0.8.5 berset$ 
```

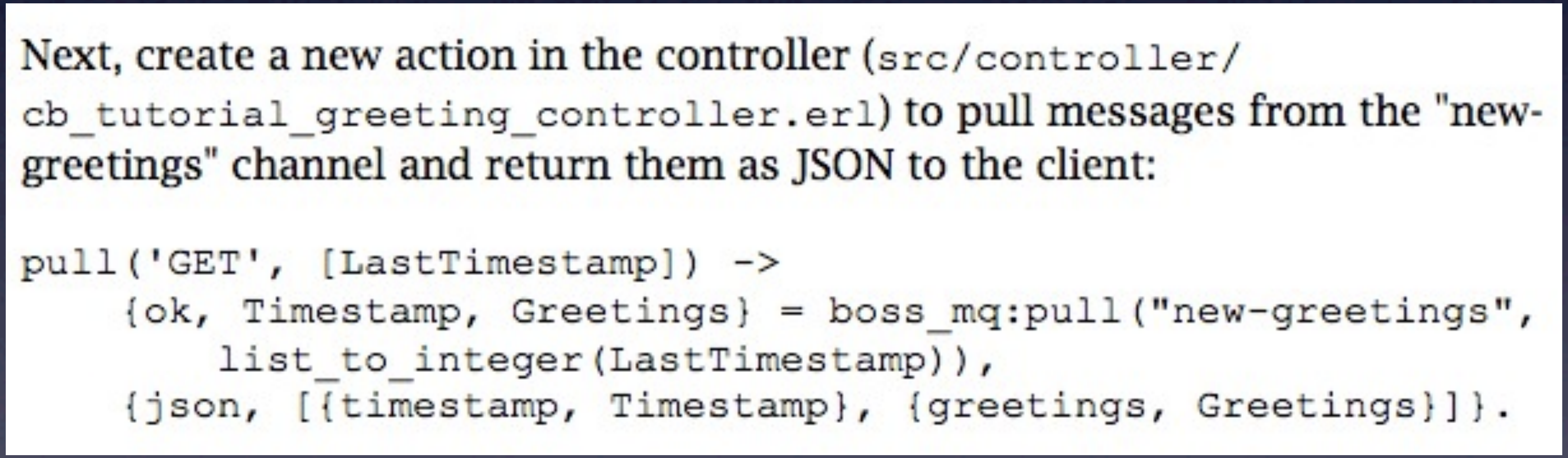
Rough edges: Documentation



3. Implementing real-time updates with save hooks

First, open up `src/model/greeting.erl` and add the following save hook:

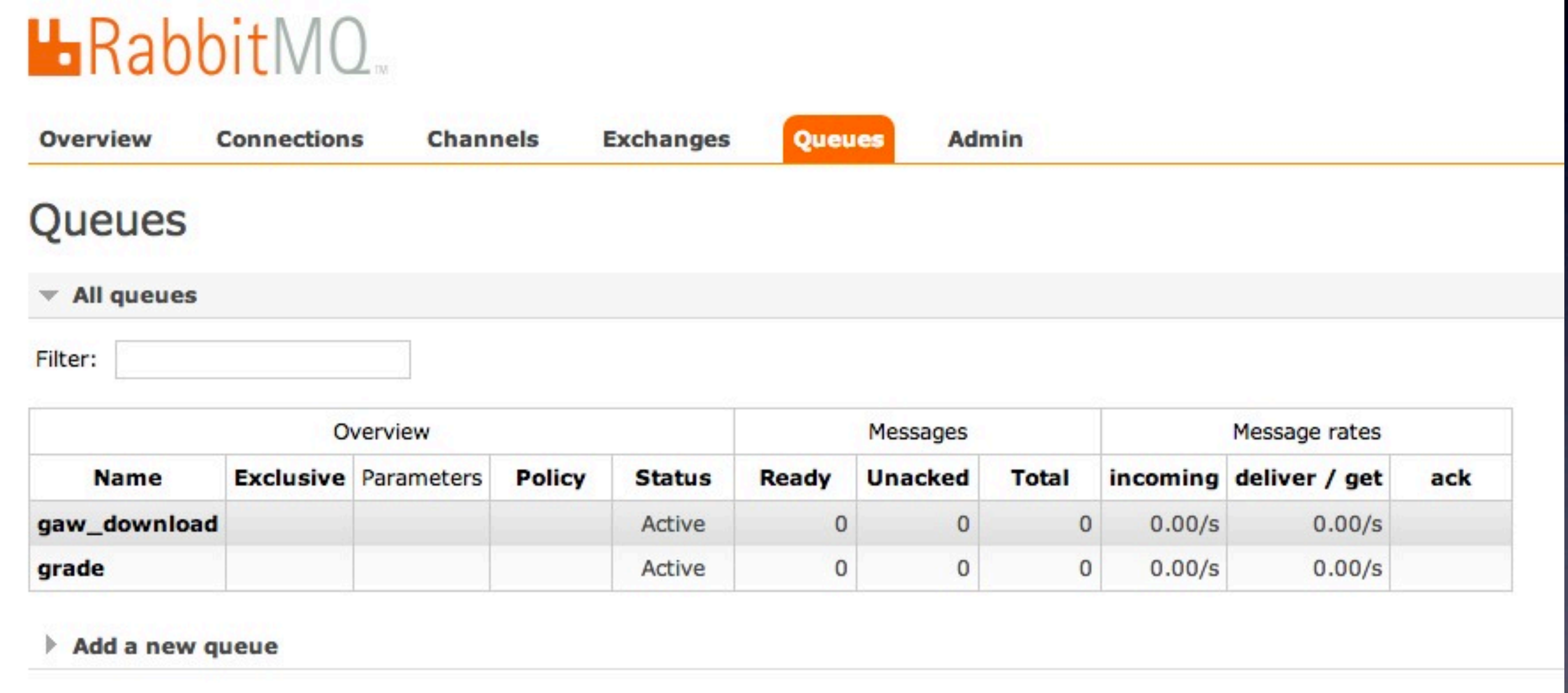
```
after_create() ->
    boss_mq:push("new-greetings", THIS).
```



Next, create a new action in the controller (`src/controller/cb_tutorial_greeting_controller.erl`) to pull messages from the "new-greetings" channel and return them as JSON to the client:

```
pull('GET', [LastTimestamp]) ->
    {ok, Timestamp, Greetings} = boss_mq:pull("new-greetings",
        list_to_integer(LastTimestamp)),
    {json, [{timestamp, Timestamp}, {greetings, Greetings}]}.
```

Rough edges:
Think like a Rails coder



Queues

▾ All queues

Filter:

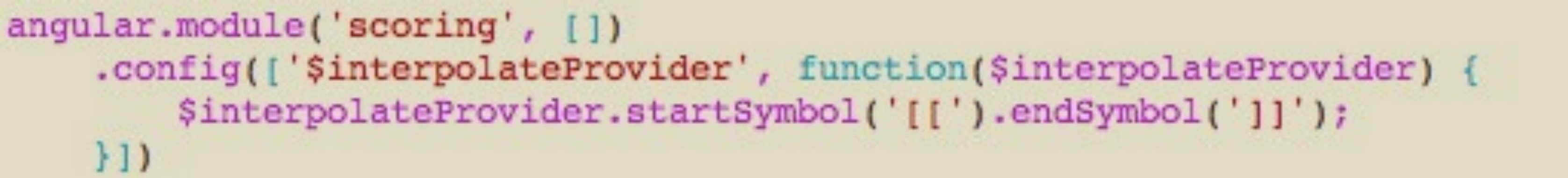
Overview					Messages			Message rates		
Name	Exclusive	Parameters	Policy	Status	Ready	Unacked	Total	incoming	deliver / get	ack
gaw_download				Active	0	0	0	0.00/s	0.00/s	
grade				Active	0	0	0	0.00/s	0.00/s	

▸ Add a new queue

Does it solve the right problem?

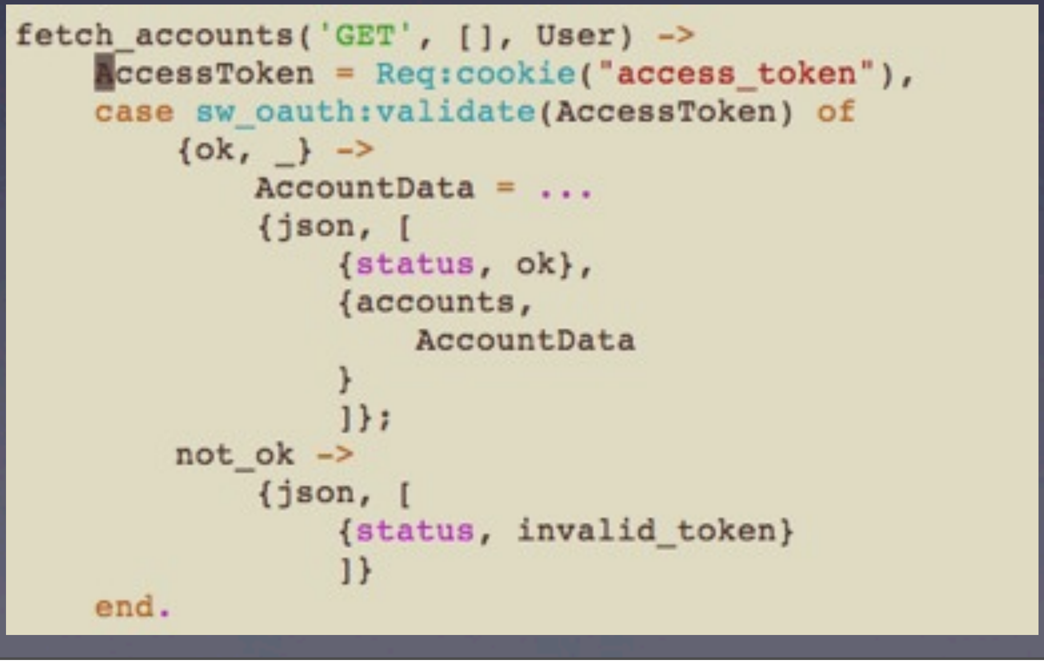
Playing with angular.js

- {{ bracket.conflict }}



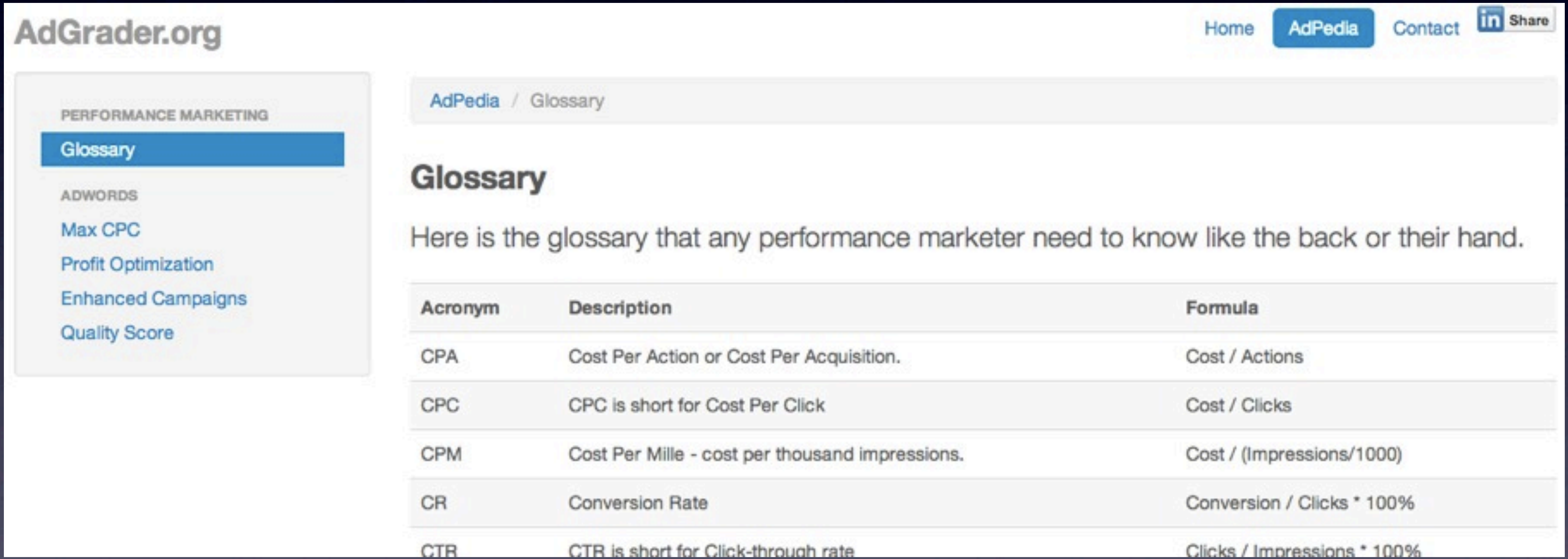
```
angular.module('scoring', [])
    .config(['$interpolateProvider', function($interpolateProvider) {
        $interpolateProvider.startSymbol('[[').endSymbol(']]');
    }])
```

- Templates: Server-side, client-side or both?
- JSON end points very nice



```
fetch_accounts('GET', [], User) ->
    AccessToken = Req:cookie("access_token"),
    case sw_oauth:validate(AccessToken) of
        {ok, _} ->
            AccountData = ...
            {json, [
                {status, ok},
                {accounts,
                    AccountData
                }
                ]};
        not_ok ->
            {json, [
                {status, invalid_token}
                ]}
    end.
```

Server side templating good for SEO =)



Glossary

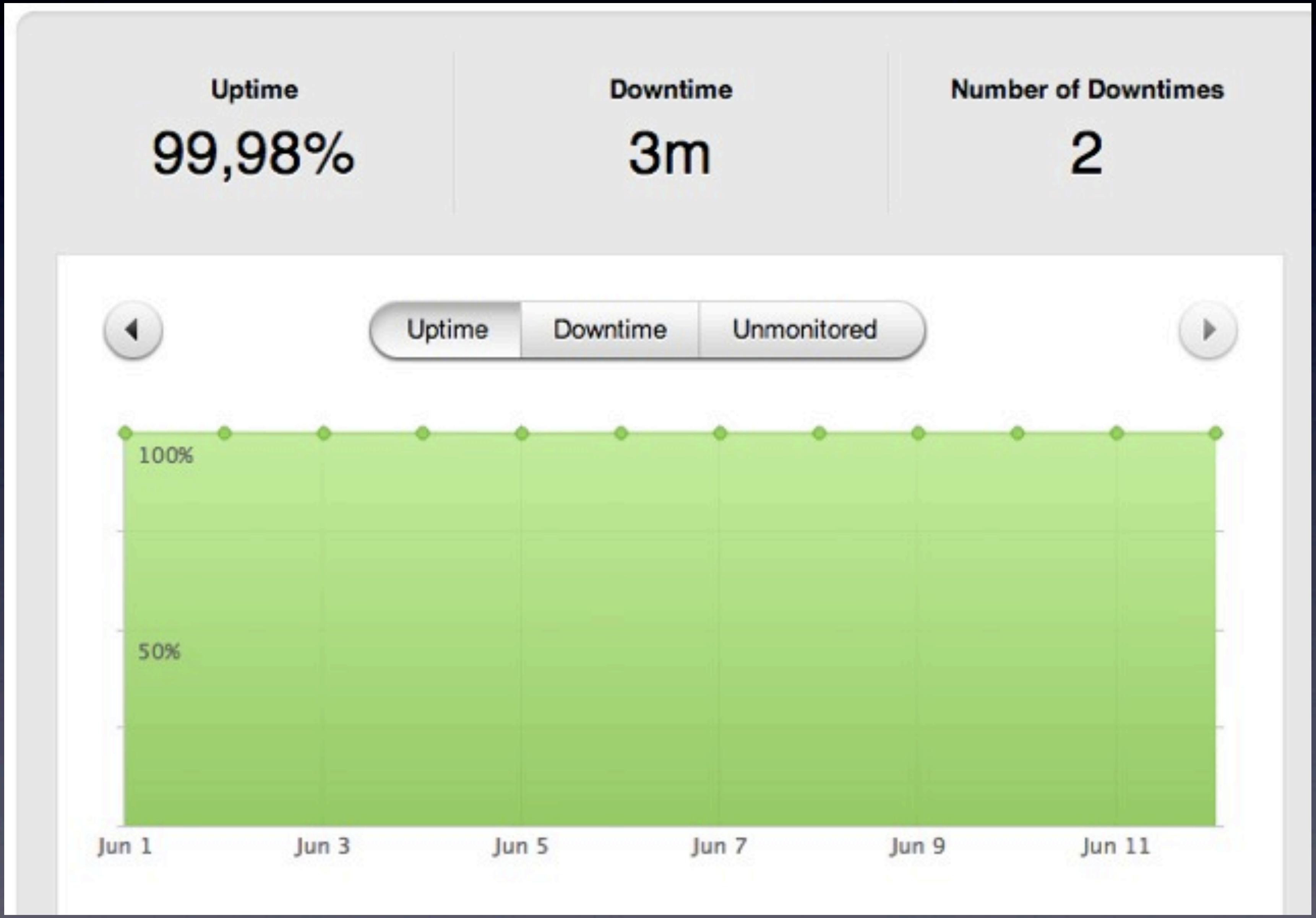
Here is the glossary that any performance marketer need to know like the back or their hand.

Acronym	Description	Formula
CPA	Cost Per Action or Cost Per Acquisition.	Cost / Actions
CPC	CPC is short for Cost Per Click	Cost / Clicks
CPM	Cost Per Mille - cost per thousand impressions.	Cost / (Impressions/1000)
CR	Conversion Rate	Conversion / Clicks * 100%
CTR	CTR is short for Click-through rate	Clicks / Impressions * 100%

Long-polling?

vs websockets?

WWW still the place for plain cowboys?



Uptime	Downtime	Number of Downtimes
99,98%	3m	2

Thank you!

Questions?