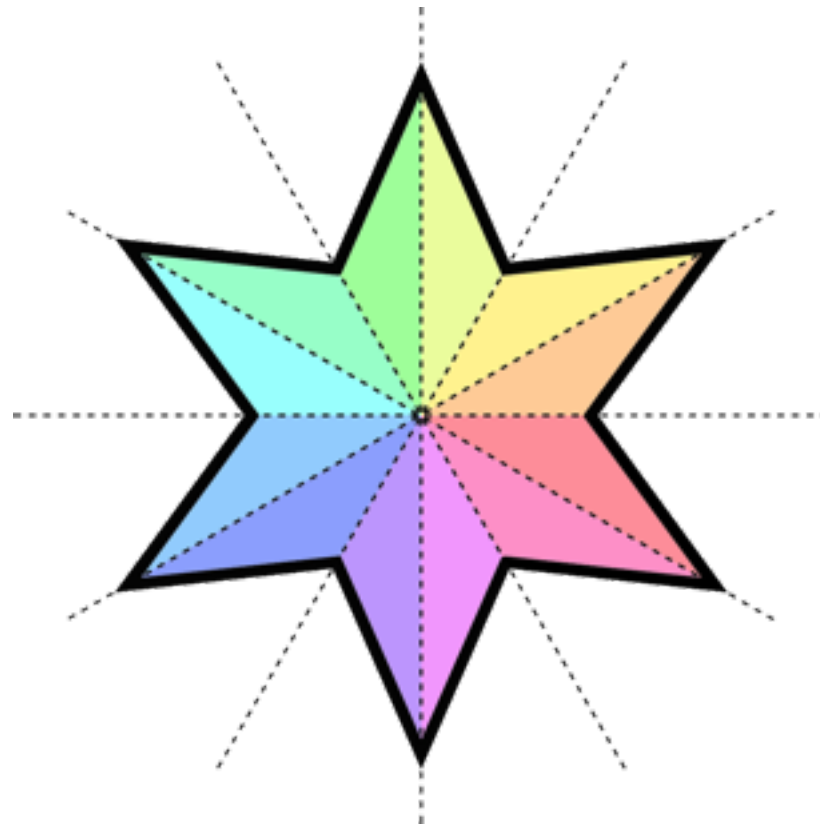# Indie node.JS

Make your dream app come true with Node

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@gdonelli

Product Design in Node

Ideally the presentation I would have wanted to see when I started building a product with node.JS

My experience

Engineering + Design = Product

2002

2008

2012

Indie | **Apple** | indie

Mac Shareware Apps

Mac OS X
(System Apps & Frameworks)

?
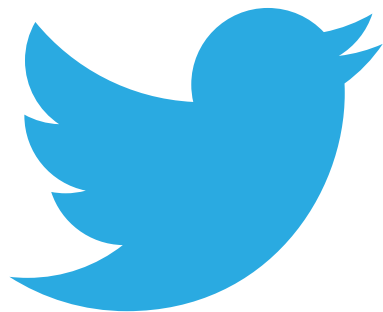
Mac OS X Engineering
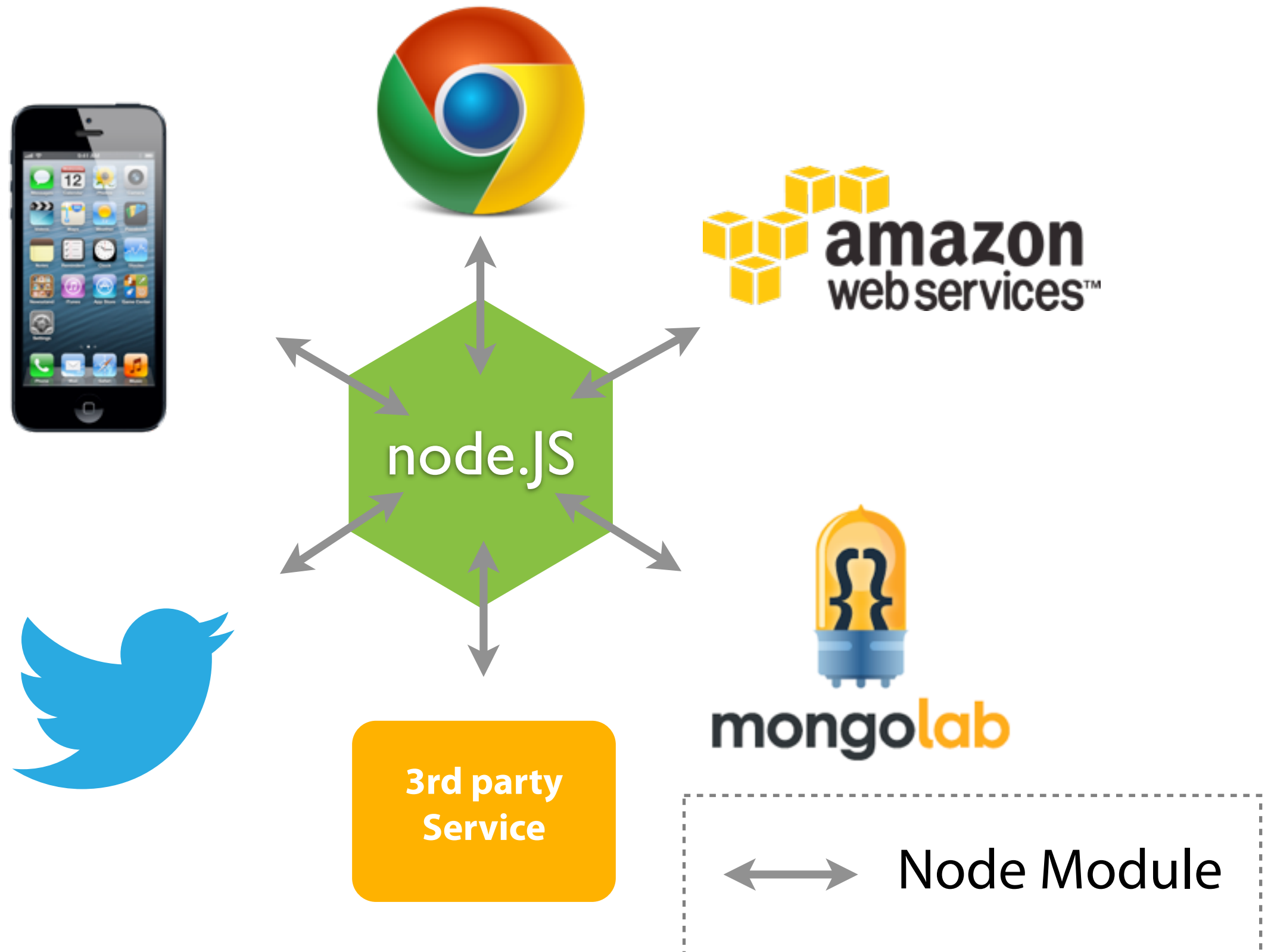Kernel Engineering
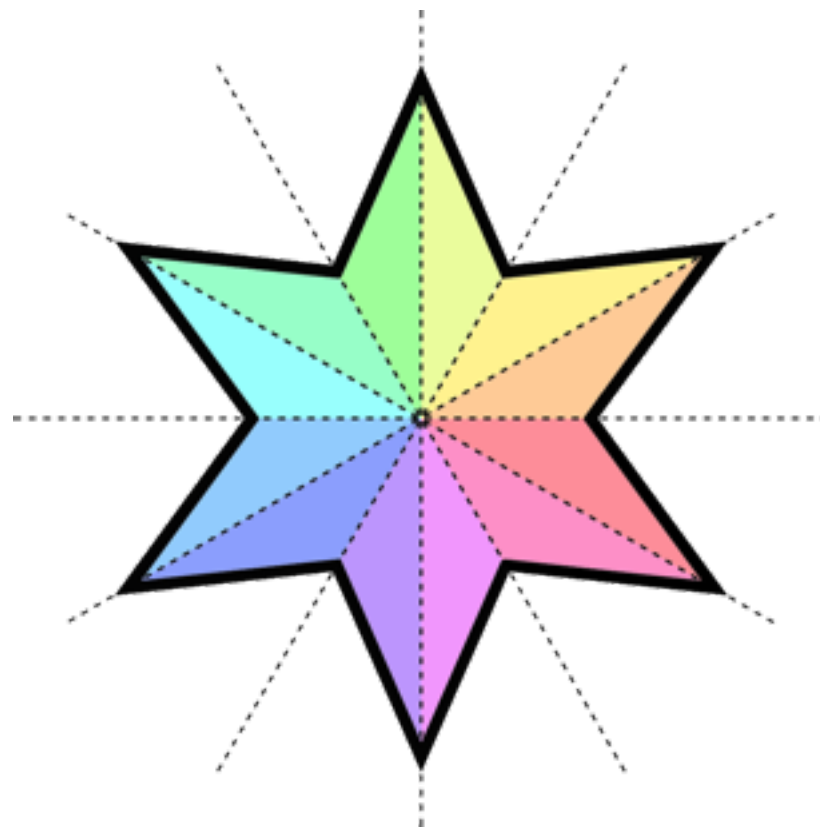Objective-C, C

iOS
node.JS
HTML5

indie ?

Modern App

Modern App

3rd party Service

Node Module

EssenceApp.com

Case Study

http:// github.com/gdonelli/essence

Tweets

1 new Tweet
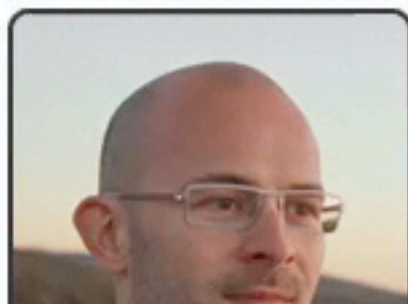
Giovanni Donelli @gdonelli

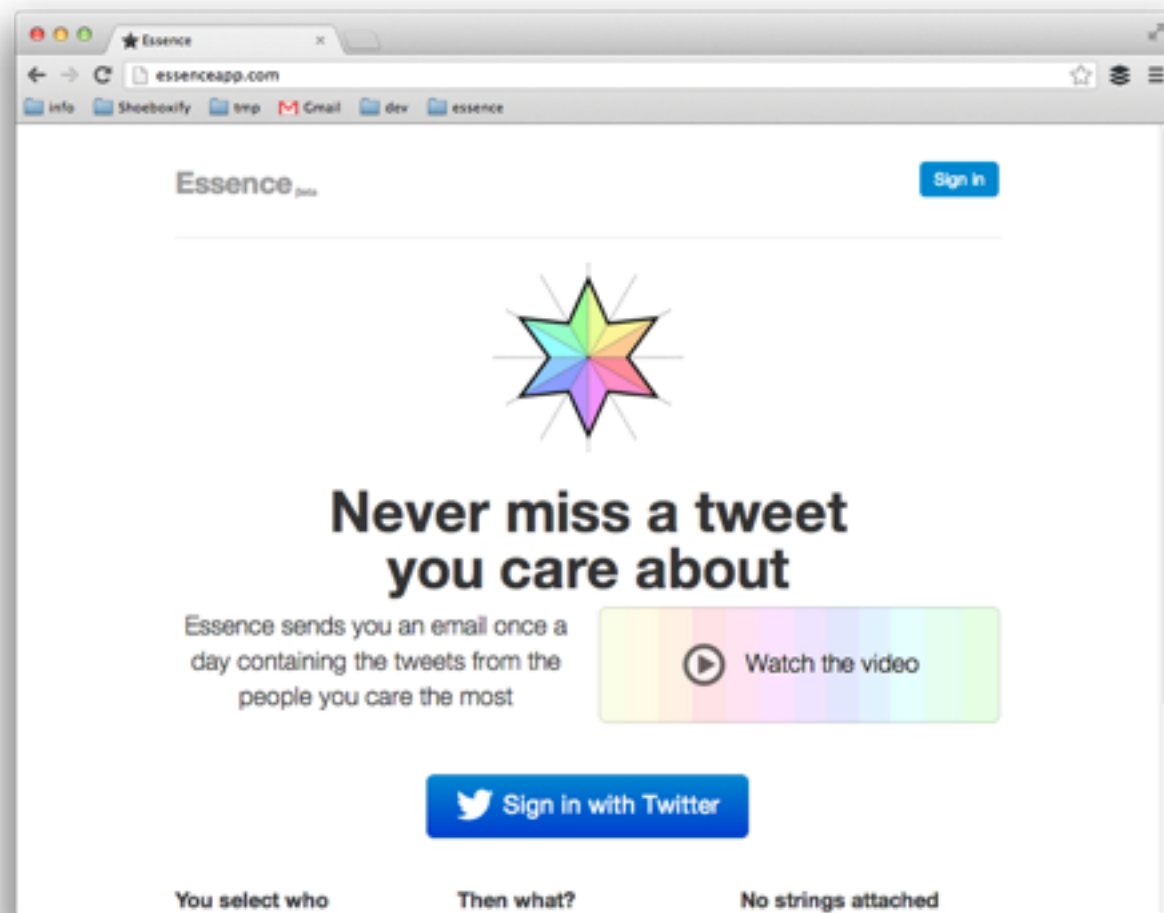I will be going to Italy in the

Things to cover

Node Modules:
- express/connect
- socket.io
- request
- async
- underscore
- require-use

3rd Party Tools:
- Nodejitsu (deployment)
- Nodefly (monitoring)

I have no positions in
any stocks mentioned

Node Modules
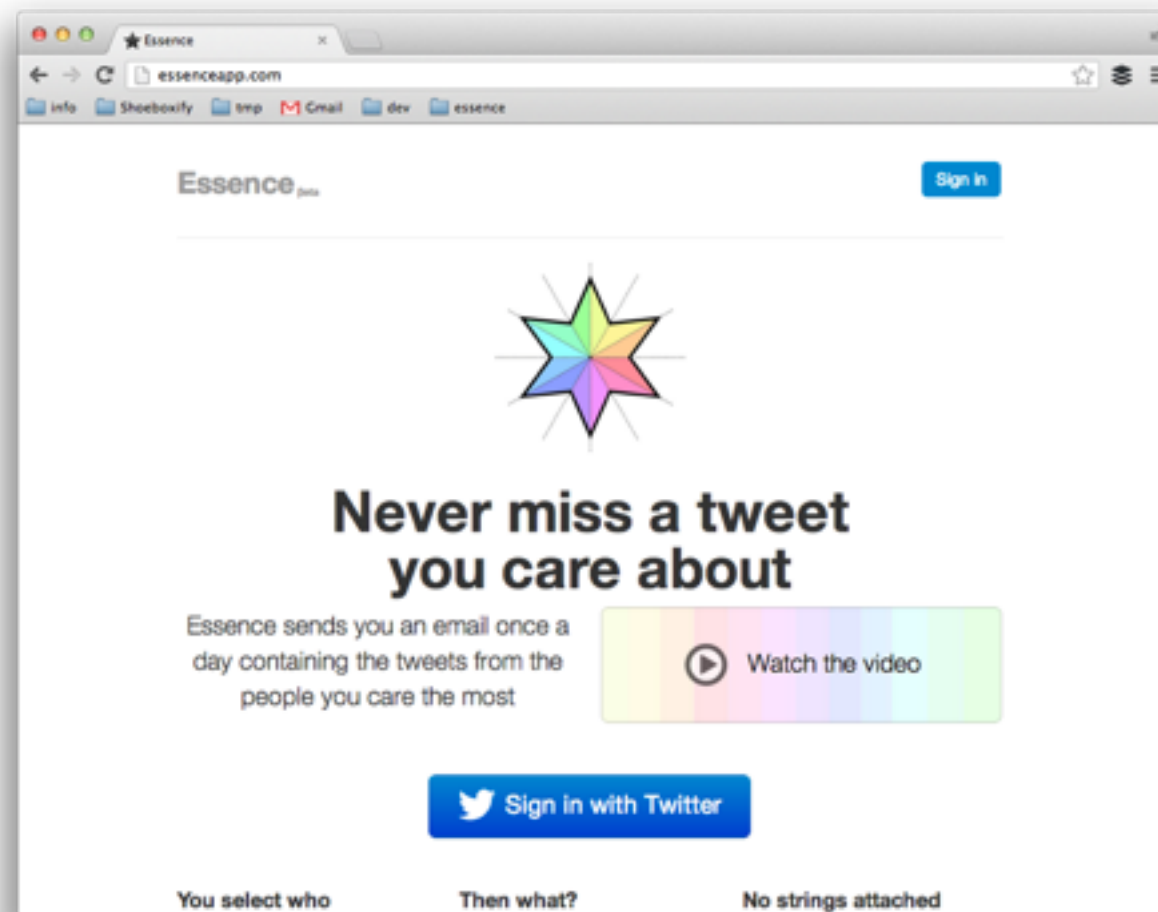
http server/session

Modules:

- express
- connect
- connect-mongo

Web UI framework:

- Bootstrap

Socket.io & UI

Demo

Socket.io

- Friend progress bar:

```
socket.volatile.emit( 'progress', 0.5);
```

- Rooms concept is great:

```
socket.join('gdonelli'); // on login

[...]

io.sockets.in('gdonelli').emit('hello', data);
```

- Speed: ~2x AJAX
- Great Semantics
- Fast Development & Easy Syncing
- Issues with mobile (need to investigate)

request

like native `http` and `https`, but better


```
var requestTokenURL =
  'https://api.twitter.com/oauth/request_token';

var oauth = _makeOAuth( ... );

request.post({
    url: requestTokenURL,
    oauth: oauth,
    timeout: authentication.timeout
  },
  function (err, postPonse, body) {
    // authentication
  })
```

async

pyramid of doom

```javascript
// Code uses jQuery to illustrate the Pyramid of Doom
(function($) {
  $(function(){
    $("button").click(function(e) {
      $.get("/test.json", function(data, textStatus, jqXHR) {
        $(".list").each(function() {
          $(this).click(function(e) {
            setTimeout(function() {
              alert("Hello World!");
            }, 1000);
          });
        });
      });
    });
  });
})(jQuery);
```

source: http://tritarget.org/blog/2012/11/28/the-pyramid-of-doom-a-javascript-style-trap/

async

reduces pyramid of doom & better control flow

```
function UserDidLogin(twitterId, callback)
{
  async.waterfall(
    [    function(callback) { //  Get userEntry
             _findUserWithTwitterId(twitterId, callback);
         },
         function(userEntry, callback)
         {
             userEntry.last_login = new Date();
             callback(null, userEntry)
         },
         database.saveUserEntry
    ],
    callback);
}
```

async

reduces pyramid of doom & better control flow

```
function GetEssenceForUser(vipArray, callback)
{
    async.map(vipArray
        , function(vip, callback)
        {
            GetTweets(vip, callback);
        }
        , function(err, results)
        {
            if (err)
                return callback(err);

            MakeEssence(results, callback)
        });
}
```

John D.

Will go to India to find myself. #JustNow

Zen Master

Things happen as they should. #wisdom

_ (underscore.js)

Collections	Arrays	Functions	Objects	Utility
1 – each	1 – first	1 – bind	1 – keys	1 – noConflict
2 – map	2 – initial	2 – bindAll	2 – values	2 – identity
3 – reduce	3 – last	3 – partial	3 – pairs	3 – times
4 – reduceRight	4 – rest	4 – memoize	4 – invert	4 – random
5 – find	5 – compact	5 – delay	5 – functions	5 – mixin
6 – filter	6 – flatten	6 – defer	6 – extend	6 – uniqueId
7 – where	7 – without	7 – throttle	7 – pick	7 – escape
8 – findWhere	8 – union	8 – debounce	8 – omit	8 – unescape
9 – reject	9 – intersection	9 – once	9 – defaults	9 – result
10 – every	10 – difference	10 – after	10 – clone	10 – template
11 – some	11 – uniq	11 – wrap	11 – tap	
12 – contains	12 – zip	12 – compose	12 – has	
13 – invoke	13 – object		13 – isEqual	
14 – pluck	14 – indexOf		14 – isEmpty	
15 – max	15 – lastIndexOf		15 – isElement	
16 – min	16 – sortedIndex		16 – isArray	
17 – sortBy	17 – range		17 – isObject	
18 – groupBy			18 – isArguments	
19 – countBy			19 – isFunction	
20 – shuffle			20 – isString	
21 – toArray			21 – isNumber	
22 – size			22 – isFinite	
			23 – isBoolean	
			24 – isDate	

use-require

Imagine the `require` command to import your files...

```
var    http    = require('http')
       , twitter = require('../code/twitter')
```
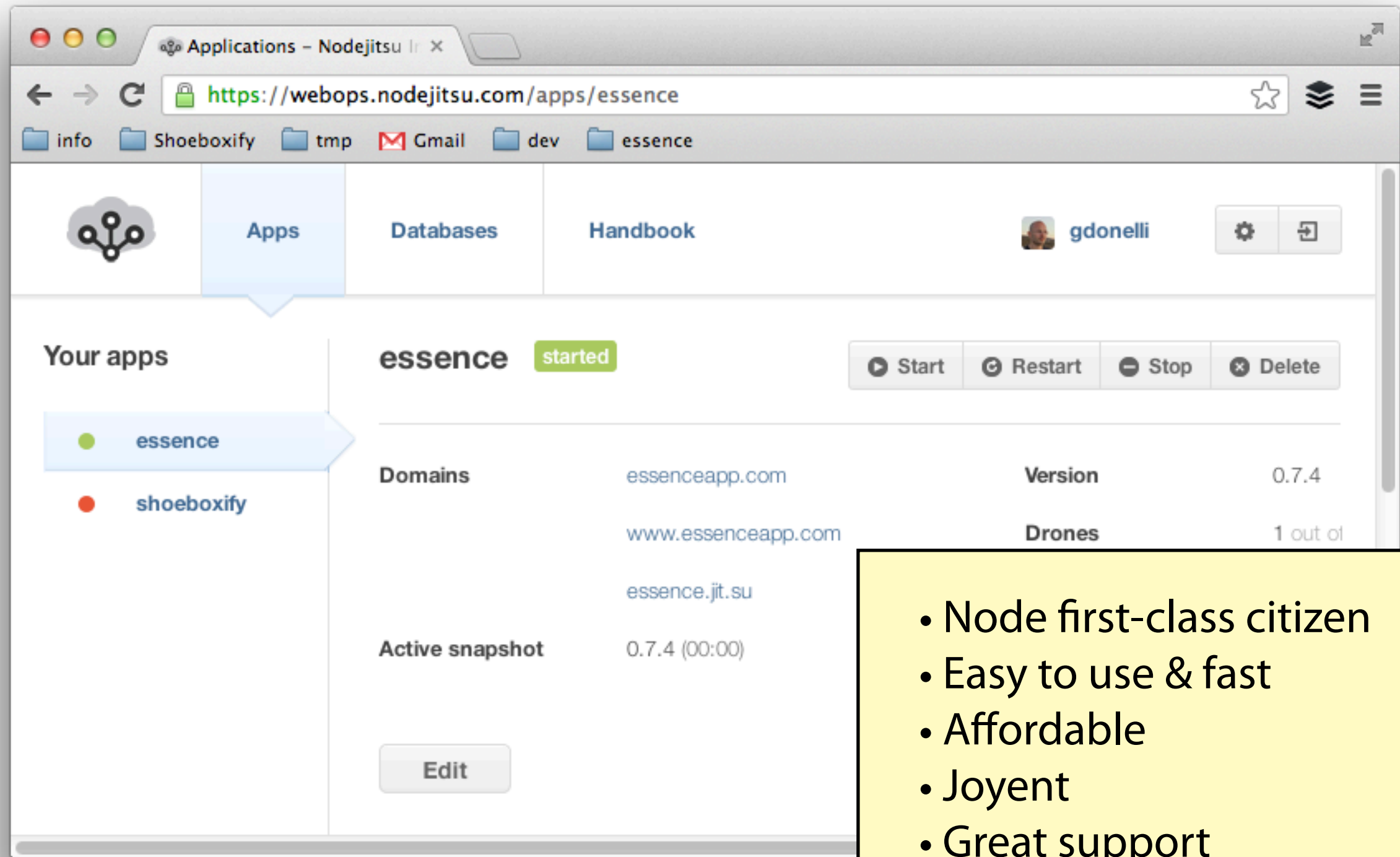
...without having to specify the full path:

```
var    http    = require('http')
       , twitter = use('twitter')
```
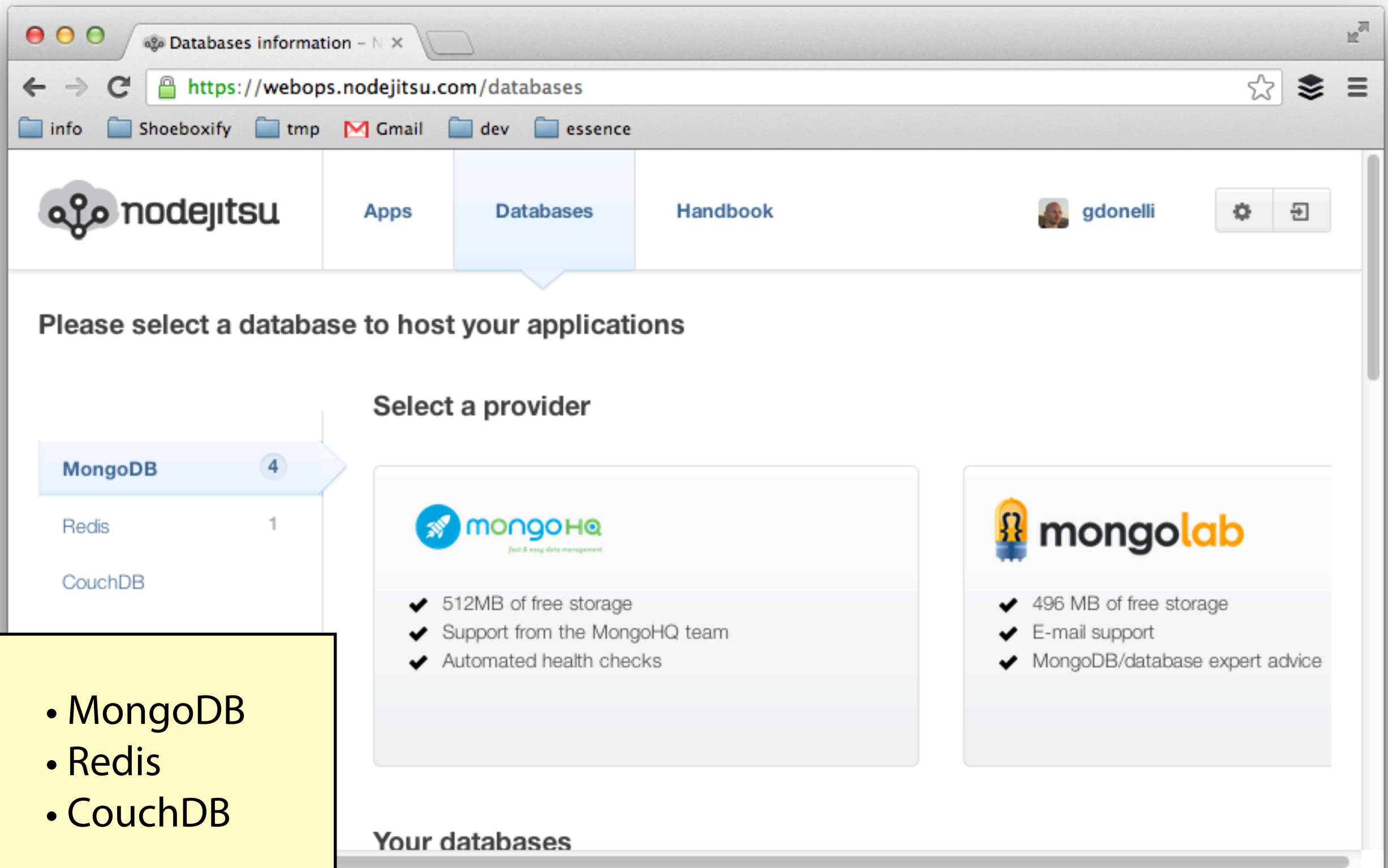
3rd Party Tools

I have no positions in **any stocks mentioned**

Nodejitsu

- Node first-class citizen
- Easy to use & fast
- Affordable
- Joyent
- Great support
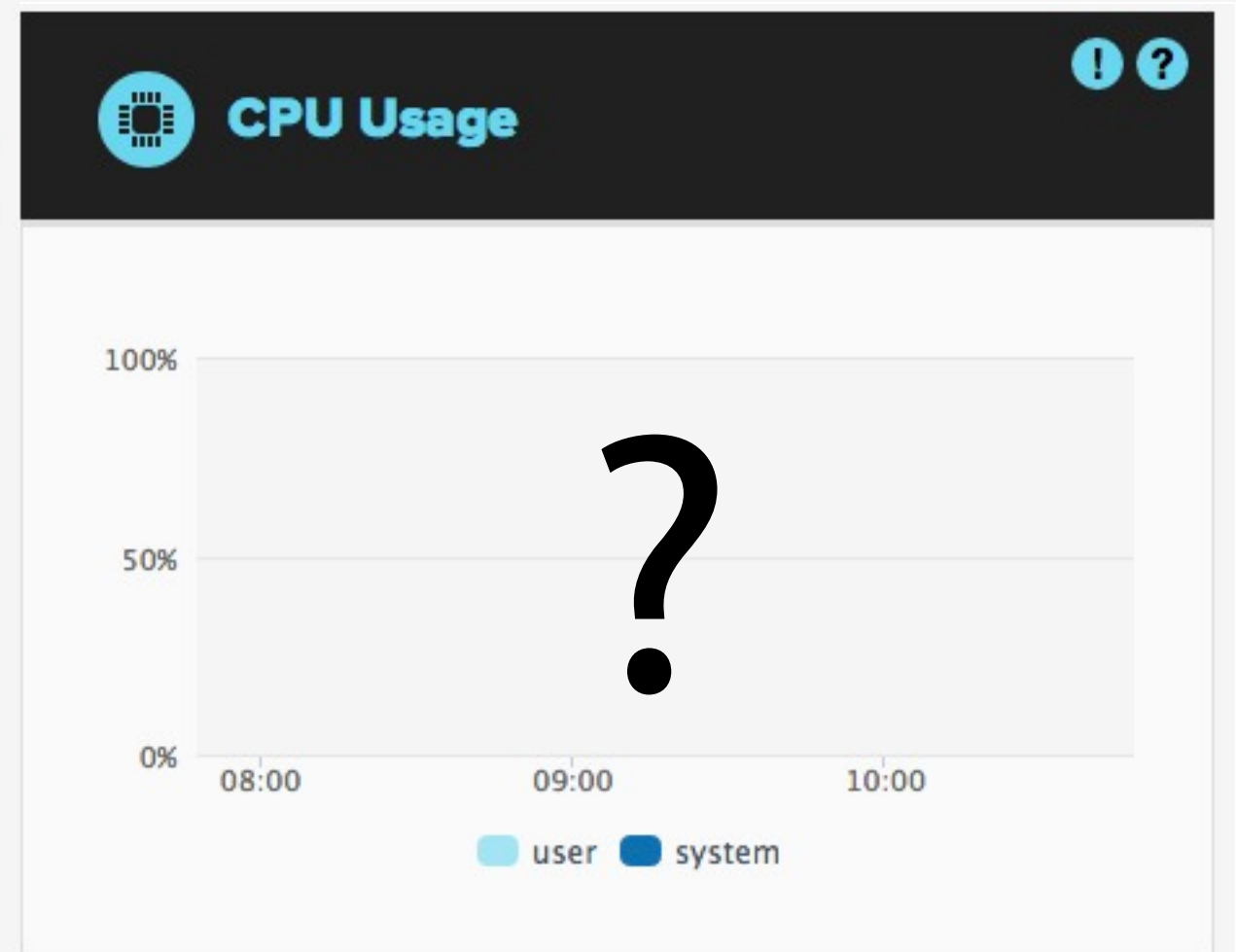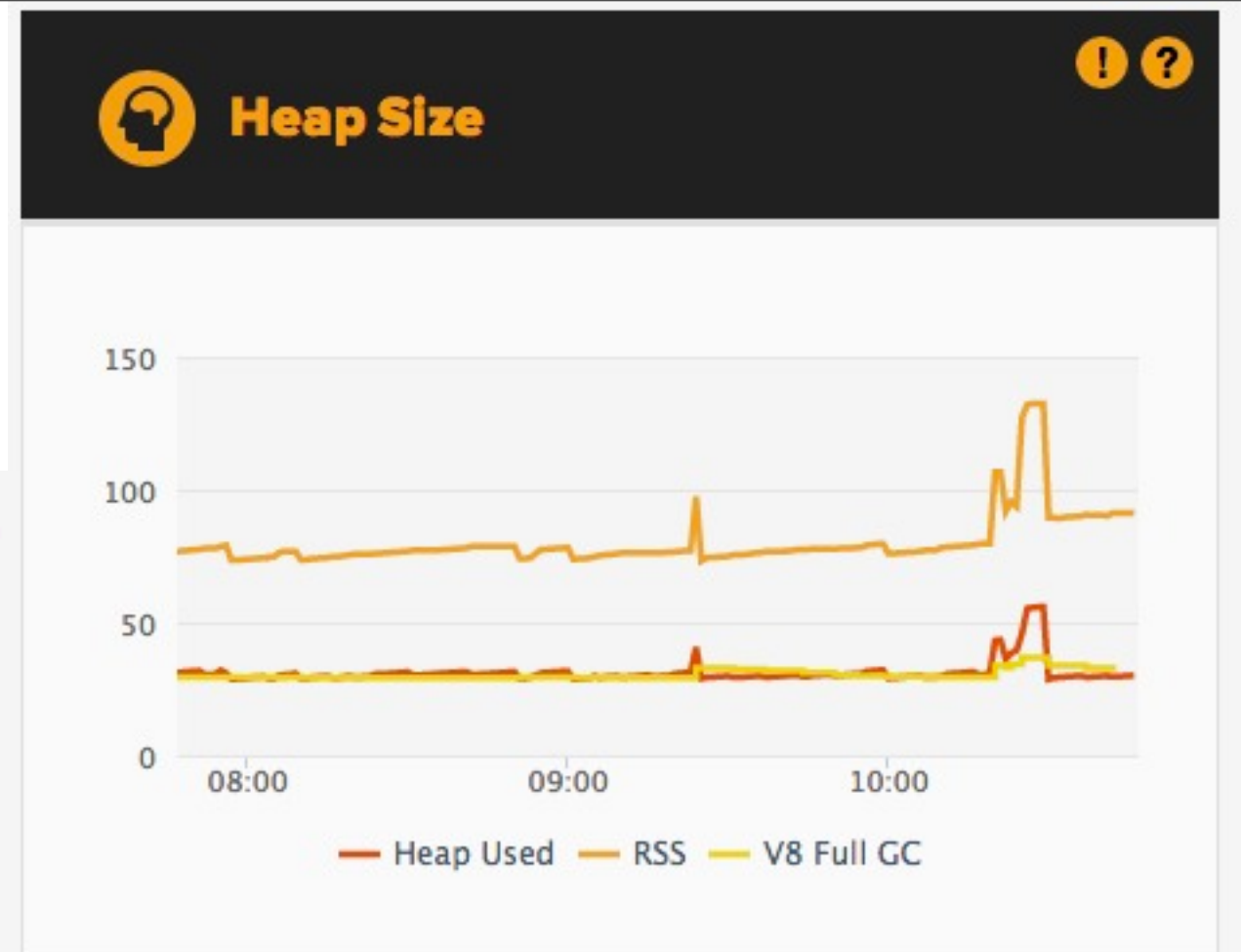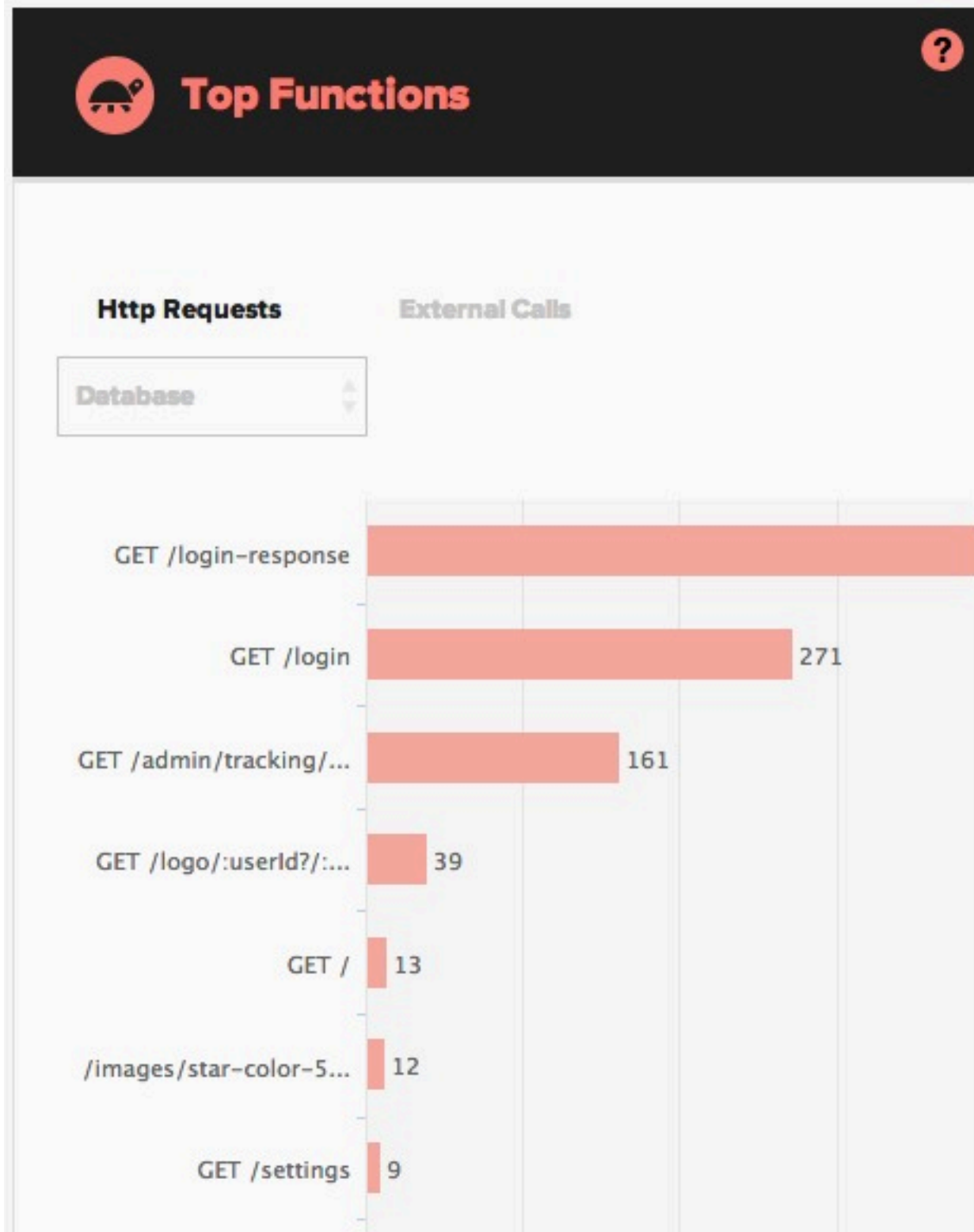- Startup changing rapidly

Nodejitsu

• MongoDB
• Redis
• CouchDB

Nodejitsu

Growing pains

No free servers available. Please visit #nodejitsu on irc.freenode.net or email support@nodejitsu.com for further information.

They do have great support

NodeFly.com

Top Functions

Http Requests   External Calls

[Database ▾]

GET /login-response
GET /login — 271
GET /admin/tracking/... — 161
GET /logo/:userId?/:... — 39
GET / — 13
/images/star-color-5... — 12
GET /settings — 9

Heap Size

— Heap Used — RSS — V8 Full GC

CPU Usage

?

user system

Q & A