

# CompoundJS

Node on rails

# Turinys

- Node pristatymas
- Node platformos
- Sintaksės palyginimas
- Našumo palyginimas

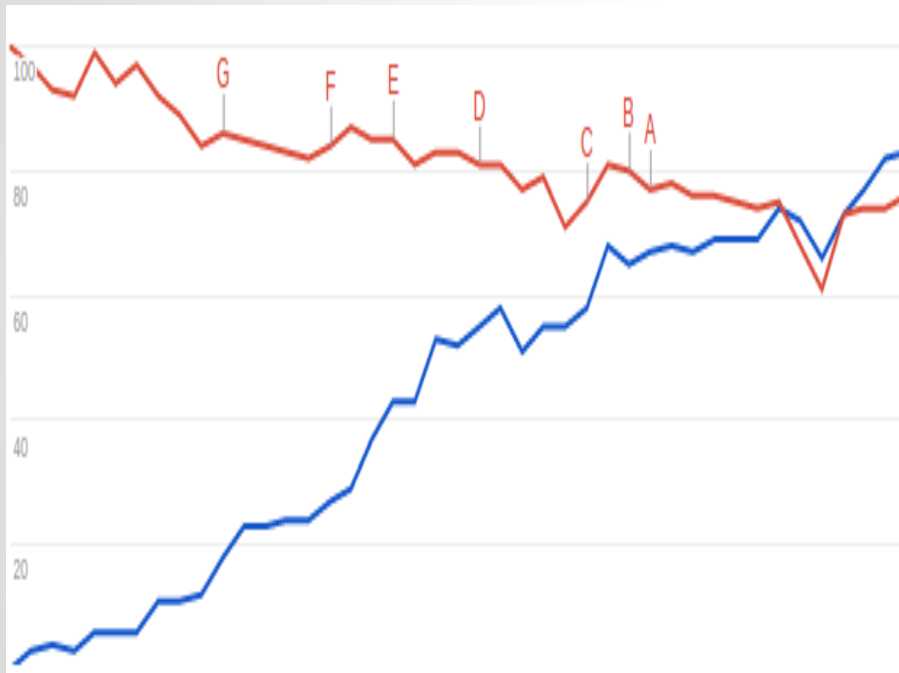
# Node? Kas tai?

```
1 http = require("http")
2 onRequest = (request, response)->
3   console.log("Request received.")
4   response.writeHead(200, {"Content-Type": "text/plain"})
5   response.write("Hello World")
6   response.end()
7 http.createServer(onRequest).listen(8888)
8 console.log("Server has started.")
```

**Node? Kodèl?**

# Augantis populiarumas

Google paieškos: "ruby on rails" VS "node.js"



Darbo skelbimai: "ruby on rails" VS "node.js"



<http://www.indeed.com/jobanalytics/jobtrends?q=ruby+on+rails%2C+node.js&l=>

<http://www.google.com/trends/explore#q=node.js%2C%20ruby%20on%20rails&date=10%2F2009%2043m&cmpt=q>

# O dar kodėl?

- Nereikia mokytis dar vienos kalbos
- Auganti bendruomenė
- Platus platformų, plėtinių pasirinkimas
- Platesnės kodo perpanaudojamumo galimybės
- Nesiblokuojantys procesai

# Platfomros

- Sails
- CompoundJs
- Geddy
- TowerJs

# Sails

- Naujas
- Pasirenkama DB
- Rails tipo generatoriai
- Shared templates
- MVC architektūra
- Orientuotas į backend (JSON by default)
- Lengvai valdomas per Socket.io





# Geddy



geddy

- Rails tipo generatoriai
- MVC architektūra
- Templates: EJS, jade, handlebars
- CSS framework: -
- Duomenų bazė: laisvai pasirenkama

# TowerJs



- Rails tipo generatoriai
- MVC architektūra
- DB: database-agnostic
- BackgroundJobs: Redis
- Tests: Jasmine (arba vows, qunit, assert)
- CSS: stylus (arba less, css)
- CoffeeScript FTW!
  - visas kodas coffescript by default (arba: js)
  - coffeecup template'ai by default (arba: jasmine, mustache)

# CompoundJs



- Rails tipo generatoriai
- MVC architektūra
- DB: Mongo, Redis, Mysql ...
- Tests: nodeunit
- CSS: stylus (arba less, sass, css)
- Galimybė viską rašyti coffeescriptu
- Template: erb, jade (+ twitter bootstrap)
- Shared kodas tarp browserio ir serverio

# Modelis

TODO...

# Kontroleris

```
load 'application' 1
before 'load gift search', -> 2
  @giftSearch = null 3
  if params.gift_search_id? 4
    GiftSearch.find params.gift_search_id, (err, giftSearch) => 5
      @giftSearch = giftSearch 6
      next() 7
    else 8
      next() 9
  end 10
action 'index', -> 11
  Idea.all (err, ideas) => 12
    @ideas = ideas 13
    respondTo (format) -> 14
      format.json -> 15
        send code: 200, data: ideas 16
      format.html -> 17
        render ideas: ideas 18
  end 19
end 20
```

```
class IdeasController < ApplicationController 1
  before_filter :get_gift_search 2

  def index 3
    @ideas = Idea.all 4
    respond_to do |format| 5
      format.html 6
      format.json do 7
        render json: {data: @ideas.as_json} 8
      end 9
    end 10
  end 11

  private 12
  def get_gift_search 13
    if @gift_search.present? 14
      Idea.new(@gift_search.attributes) 15
    end 16
    @gift_search ||= GiftSearch.new(defaults) 17
  end 18
end 19
end 20
```

# Template (ERB VS EJS)

```
<h1><%=t('ideas.gift_suggestions') %></h1> 1
<table class="table table-striped" id="main-table"> 2
  <tr> 3
    <th>Pavadinimas</th> 4
    <th><%= t('helpers.actions') %></th> 5
  </tr> 6
  <% for(var i = 0; i < ideas.length; i++) { %> 7
    <% var idea = ideas[i] %> 8
    <tr> 9
      <td class="title-area"> 10
        <h5><%= idea.title %></h5> 11
        Amžius: <%= idea.age_from %> - 12
        <%= idea.age_till %> 13
      </td> 14
    </tr> 15
  <% } %> 16
</table> 17
```

```
<h1><%=t 'ideas.gift_suggestions' %></h1> 1
<table class="table table-striped" id="main-table"> 2
  <tr> 3
    <th>Pavadinimas</th> 4
    <th><%= t 'helpers.actions' %></th> 5
  </tr> 6
  <% @ideas.each do |idea| %> 7
    <tr> 8
      <td><%= link_to idea.id, idea_path(idea) %></td> 9
      <td class="title-area"> 10
        <h5><%= idea.title %></h5> 11
        Amžius: <%= idea.age_from %> - 12
        <%= idea.age_till %> 13
      </td> 14
    </tr> 15
  <% end %> 16
</table> 17
```

# Template (Slim VS Jade)

```
div(class="page-header")
  h1=t 'ideas.gift_suggestions'
table(class="table table-striped", id="main-table")
  thead
    tr
      th ID
      th Pavadinimas
      th= t('helpers.actions')
  tbody
    each idea in ideas
      tr
        td= link_to(idea.id, pathTo.idea(idea))
        td.title-area
          h5= idea.title
          | Amžius: #{idea.age_from} - #{idea.age_till}
```

```
div class="page-header"
  h1=t 'ideas.gift_suggestions'
table class="table table-striped", id="main-table"
  thead
    tr
      th ID
      th Pavadinimas
      th= t 'helpers.actions'
  tbody
    - @ideas.each do |idea|
      tr
        td= link_to idea.id, idea_path(idea)
        td.title-area
          h5= idea.title
          | Amžius: #{idea.age_from} - #{idea.
age_till}
```

# Routes

```
exports.routes = (map)->
  map.resources 'ideas'

  map.namespace "admin", (admin)->
    admin.resources 'relationships'

  map.resources 'shops', (shops)->
    shops.resources 'products'

  map.root("ideas#index")

  map.all ':controller/:action'
  map.all ':controller/:action/:id'
```

```
GiftAdvisor::Application.routes.draw do
  resources :ideas

  namespace :admin do
    resources :relationships
  end

  resources :shops do
    resources :products
  end

  root to: 'ideas#index'

  match ':controller(/:action(/:id))(/:format)'
end
```



# Platformų našumas



## Peak JSON responses per second, EC2 large

Framework		Peak performance	
netty ✓	hide	37,929	100.0%
servlet	hide	26,440	69.7%
go ✓	hide	13,901	36.7%
nodejs ✓	hide	10,815	28.5%
spring ✓	hide	10,613	28.0%
play-scala ✓	hide	9,231	24.3%
express	hide	7,101	18.7%
webgo	hide	6,521	17.2%
rack-jruby	hide	4,623	12.2%
grails ✓	hide	4,558	12.0%
php ✓	hide	3,943	10.4%
rack-ruby	hide	2,520	6.6%
sinatra-ruby	hide	1,408	3.7%
rails-jruby	hide	857	2.3%
rails-ruby	hide	721	1.9%
sinatra-jruby	hide	640	1.7%
cake ✓	hide	223	0.6%



































## Peak JSON responses per second, dedicated i7 hardware

Framework		Peak performance	
■ servlet	hide	223,522	100.0%
■ netty ✓	hide	209,255	93.6%
■ go ✓	hide	102,643	45.9%
■ spring ✓	hide	100,745	45.1%
■ nodejs ✓	hide	70,967	31.7%
■ webgo	hide	51,553	23.1%
■ express	hide	44,505	19.9%
■ play-scala ✓	hide	43,743	19.6%
■ php ✓	hide	36,433	16.3%
■ grails ✓	hide	33,109	14.8%
■ rack-jruby	hide	31,149	13.9%
■ rack-ruby	hide	9,536	4.3%
■ sinatra-ruby	hide	6,578	2.9%
■ rails-jruby	hide	4,146	1.9%
■ rails-ruby	hide	3,325	1.5%
■ sinatra-jruby	hide	2,818	1.3%
■ cake ✓	hide	1,547	0.7%























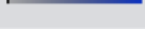

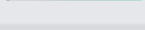

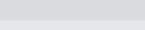

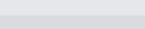


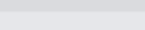

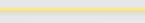
## Peak database-access responses per second, EC2 large, single query

Framework		Peak performance	
■ servlet-raw	hide	8,160	89.1%
■ spring ✓	hide	4,727	51.6%
■ nodejs-mongodb	hide	3,116	34.0%
■ php-raw	hide	2,754	30.1%
■ express-mongodb	hide	2,690	29.4%
■ grails ✓	hide	2,386	26.1%
■ nodejs-mysql-raw	hide	2,351	25.7%
■ nodejs-mysql	hide	1,437	15.7%
■ express-mysql	hide	1,371	15.0%
■ sinatra-ruby	hide	738	8.1%
■ rails-jruby	hide	601	6.6%
■ rails-ruby	hide	545	6.0%
■ php ✓	hide	544	5.9%
■ sinatra-jruby	hide	381	4.2%
■ cake ✓	hide	198	2.2%

## Peak database-access responses per second, dedicated i7 hardware, single query

Framework		Peak performance	
 servlet-raw	<a href="#">hide</a>	82,356	 85.0%
 spring 	<a href="#">hide</a>	40,140	 41.4%
 php-raw	<a href="#">hide</a>	26,519	 27.4%
 grails 	<a href="#">hide</a>	17,323	 17.9%
 nodejs-mongodb	<a href="#">hide</a>	17,069	 17.6%
 express-mongodb	<a href="#">hide</a>	14,596	 15.1%
 nodejs-mysql-raw	<a href="#">hide</a>	13,107	 13.5%
 nodejs-mysql	<a href="#">hide</a>	8,372	 8.6%
 express-mysql	<a href="#">hide</a>	7,938	 8.2%
 php 	<a href="#">hide</a>	3,932	 4.1%
 sinatra-ruby	<a href="#">hide</a>	3,673	 3.8%
 rails-jruby	<a href="#">hide</a>	2,944	 3.0%
 rails-ruby	<a href="#">hide</a>	2,604	 2.7%
 cake 	<a href="#">hide</a>	1,116	 1.2%
 sinatra-jruby	<a href="#">hide</a>	508	 0.5%

## Responses per second at 20 queries per request, EC2 large

Framework		Performance
 servlet-raw	<a href="#">hide</a>	635  88.9%
 php-raw	<a href="#">hide</a>	614  86.0%
 spring 	<a href="#">hide</a>	531  74.4%
 grails 	<a href="#">hide</a>	391  54.8%
 php 	<a href="#">hide</a>	170  23.8%
 nodejs-mongodb	<a href="#">hide</a>	125  17.5%
 express-mongodb	<a href="#">hide</a>	122  17.1%
 sinatra-ruby	<a href="#">hide</a>	114  16.0%
 rails-jruby	<a href="#">hide</a>	98  13.7%
 rails-ruby	<a href="#">hide</a>	98  13.7%
 nodejs-mysql-raw	<a href="#">hide</a>	97  13.6%
 sinatra-jruby	<a href="#">hide</a>	96  13.4%
 express-mysql	<a href="#">hide</a>	94  13.2%
 cake 	<a href="#">hide</a>	81  11.3%
 nodejs-mysql	<a href="#">hide</a>	51  7.1%

# Responses per second at 20 queries per request, dedicated i7 hardware

Framework		Performance	
■ servlet-raw	hide	6,176	87.6%
■ php-raw	hide	6,092	86.4%
■ spring ✓	hide	4,535	64.3%
■ grails ✓	hide	2,952	41.9%
■ nodejs-mongodb	hide	1,502	21.3%
■ express-mongodb	hide	1,389	19.7%
■ php ✓	hide	1,235	17.5%
■ nodejs-mysql-raw	hide	916	13.0%
■ sinatra-ruby	hide	587	8.3%
■ cake ✓	hide	573	8.1%
■ rails-ruby	hide	506	7.2%
■ nodejs-mysql	hide	506	7.2%
■ rails-jruby	hide	484	6.9%
■ express-mysql	hide	461	6.5%
■ sinatra-jruby	hide	327	4.6%

**Klausimai?**



**Ačiū! :)**

