

Web Service Finishing Touches

Capstone: Photo Tourist Web Application



In this lecture, we will discuss...

✧ HTTP Client with HTTParty

Jamess-MacBook-Pro:capstone_demoapp jim\$ vi Gemfile

```
1 #
2 source 'https://rubygems.org'
3
4 gem 'rails', '4.2.6'
5 gem 'rails-api', '~>0.4', '>=0.4.0'
6
7 gem 'jbuilder', '~> 2.0', '>=2.6.0'
8
9 group :development do
10   gem 'spring', '~>2.0', '>=2.0.0'
11 end
12
13 group :development, :test do
14   gem 'tzinfo-data', :platforms=>[:mingw, :mswin, :x64_mingw, :jruby]
15   gem 'httparty', '~>0.14', '>=0.14.0'
16
17   gem 'rspec-rails', '~> 3.5', '>=3.5.2'
18 end
19
20 gem 'pg', '~>0.19', '>=0.19.0'
21 gem 'mongoid', '~>5.1', '>=5.1.5'
```

~
~
~
~
~
~
~
~
~

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi Gemfile
Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
Using mongo 2.3.1
Using sprockets 3.7.0
Using httparty 0.14.0
Using rspec-core 3.5.4
Using rspec-expectations 3.5.0
Using rspec-mocks 3.5.0
Using activeupport 4.2.6
Using loofah 2.0.3
Using mail 2.6.4
Using rails-deprecated_sanitizer 1.0.3
Using globalid 0.3.7
Using activemodel 4.2.6
Using jbuilder 2.6.0
Using spring 2.0.0
Using rails-html-sanitizer 1.0.3
Using rails-dom-testing 1.0.7
Using activejob 4.2.6
Using activerecord 4.2.6
Using mongoid 5.1.5
Using actionview 4.2.6
Using actionpack 4.2.6
Using actionmailer 4.2.6
Using railties 4.2.6
Using sprockets-rails 3.2.0
Using rails-api 0.4.0
Using rspec-rails 3.5.2
Using rails 4.2.6
```

```
Bundle complete! 9 Gemfile dependencies, 52 gems now installed.
Use `bundle show [gemname]` to see where a bundled gem is installed.
```

```
Using mail 2.6.4
Using rails-deprecated_sanitizer 1.0.3
Using globalid 0.3.7
Using activemodel 4.2.6
Using jbuilder 2.6.0
Using spring 2.0.0
Using rails-html-sanitizer 1.0.3
Using rails-dom-testing 1.0.7
Using activejob 4.2.6
Using activerecord 4.2.6
Using mongoid 5.1.5
Using actionview 4.2.6
Using actionpack 4.2.6
Using actionmailer 4.2.6
Using railties 4.2.6
Using sprockets-rails 3.2.0
Using rails-api 0.4.0
Using rspec-rails 3.5.2
Using rails 4.2.6
Bundle complete! 9 Gemfile dependencies, 52 gems now installed.
Use `bundle show [gemname]` to see where a bundled gem is installed.
Jamess-MacBook-Pro:capstone_demoapp jim$ rails s
=> Booting WEBrick
=> Rails 4.2.6 application starting in development on http://localhost:3000
=> Run `rails server -h` for more startup options
=> Ctrl-C to shutdown server
[2016-12-02 23:25:59] INFO WEBrick 1.3.1
[2016-12-02 23:25:59] INFO ruby 2.2.3 (2015-08-18) [x86_64-darwin15]
[2016-12-02 23:25:59] INFO WEBrick::HTTPServer#start: pid=12452 port=3000
```



```
James-MacBook-Pro:capstone_demoapp jim$ rails c
Running via Spring preloader in process 12501
Loading development environment (Rails 4.2.6)
irb(main):001:0> █
```



```
irb(main):001:0> Foo.count  
  (0.3ms) SELECT COUNT(*) FROM "foos"  
=> 0  
irb(main):002:0> █
```

```
irb(main):001:0> Foo.count
  (0.3ms) SELECT COUNT(*) FROM "foos"
=> 0
irb(main):002:0> (1..3).each {|idx| Foo.create(:name=>"test#{idx}") }; nil
  (0.1ms) BEGIN
SQL (7.3ms) INSERT INTO "foos" ("name", "created_at", "updated_at") VALUES ($1, $2, $3) RETURNING "id" [{"na
me", "test1"}, ["created_at", "2016-12-03 04:37:08.068883"], ["updated_at", "2016-12-03 04:37:08.068883"]]
  (72.2ms) COMMIT
  (0.1ms) BEGIN
SQL (0.1ms) INSERT INTO "foos" ("name", "created_at", "updated_at") VALUES ($1, $2, $3) RETURNING "id" [{"na
me", "test2"}, ["created_at", "2016-12-03 04:37:08.153708"], ["updated_at", "2016-12-03 04:37:08.153708"]]
  (0.1ms) COMMIT
  (0.1ms) BEGIN
SQL (0.1ms) INSERT INTO "foos" ("name", "created_at", "updated_at") VALUES ($1, $2, $3) RETURNING "id" [{"na
me", "test3"}, ["created_at", "2016-12-03 04:37:08.155291"], ["updated_at", "2016-12-03 04:37:08.155291"]]
  (0.1ms) COMMIT
=> nil
irb(main):003:0> Foo.count
```

```
irb(main):001:0> Foo.count
  (0.3ms) SELECT COUNT(*) FROM "foos"
=> 0
irb(main):002:0> (1..3).each {|idx| Foo.create(:name=>"test#{idx}") }; nil
  (0.1ms) BEGIN
SQL (7.3ms) INSERT INTO "foos" ("name", "created_at", "updated_at") VALUES ($1, $2, $3) RETURNING "id" [{"na
me", "test1"], ["created_at", "2016-12-03 04:37:08.068883"], ["updated_at", "2016-12-03 04:37:08.068883"]]
  (72.2ms) COMMIT
  (0.1ms) BEGIN
SQL (0.1ms) INSERT INTO "foos" ("name", "created_at", "updated_at") VALUES ($1, $2, $3) RETURNING "id" [{"na
me", "test2"], ["created_at", "2016-12-03 04:37:08.153708"], ["updated_at", "2016-12-03 04:37:08.153708"]]
  (0.1ms) COMMIT
  (0.1ms) BEGIN
SQL (0.1ms) INSERT INTO "foos" ("name", "created_at", "updated_at") VALUES ($1, $2, $3) RETURNING "id" [{"na
me", "test3"], ["created_at", "2016-12-03 04:37:08.155291"], ["updated_at", "2016-12-03 04:37:08.155291"]]
  (0.1ms) COMMIT
=> nil
irb(main):003:0> Foo.count
  (0.3ms) SELECT COUNT(*) FROM "foos"
=> 3
irb(main):004:0> █
```

```
irb(main):004:0> response=HTTParty.get("http://localhost:3000/api/foos"); nil  
=> nil  
irb(main):005:0> █
```

```
irb(main):004:0> response=HTTParty.get("http://localhost:3000/api/foos"); nil  
=> nil  
irb(main):005:0> response.response  
=> #<Net::HTTPOK 200 OK readbody=true>  
irb(main):006:0> █
```

```
irb(main):004:0> response=HTTParty.get("http://localhost:3000/api/foos"); nil
=> nil
irb(main):005:0> response.response
=> #<Net::HTTPOK 200 OK readbody=true>
irb(main):006:0> response.parsed_response
=> [{"id"=>2, "name"=>"test1", "created_at"=>"2016-12-03T04:37:08.068Z", "updated_at"=>"2016-12-03T04:37:08.068Z", "url"=>"http://localhost:3000/api/foos/2"}, {"id"=>3, "name"=>"test2", "created_at"=>"2016-12-03T04:37:08.153Z", "updated_at"=>"2016-12-03T04:37:08.153Z", "url"=>"http://localhost:3000/api/foos/3"}, {"id"=>4, "name"=>"test3", "created_at"=>"2016-12-03T04:37:08.155Z", "updated_at"=>"2016-12-03T04:37:08.155Z", "url"=>"http://localhost:3000/api/foos/4"}]
irb(main):007:0> █
```



```
irb(main):008:0> pp response.parsed_response; nil
[{"id"=>2,
  "name"=>"test1",
  "created_at"=>"2016-12-03T04:37:08.068Z",
  "updated_at"=>"2016-12-03T04:37:08.068Z",
  "url"=>"http://localhost:3000/api/foos/2"},
 {"id"=>3,
  "name"=>"test2",
  "created_at"=>"2016-12-03T04:37:08.153Z",
  "updated_at"=>"2016-12-03T04:37:08.153Z",
  "url"=>"http://localhost:3000/api/foos/3"},
 {"id"=>4,
  "name"=>"test3",
  "created_at"=>"2016-12-03T04:37:08.155Z",
  "updated_at"=>"2016-12-03T04:37:08.155Z",
  "url"=>"http://localhost:3000/api/foos/4"}]
=> nil
irb(main):009:0> █
```



```
irb(main):011:0> Bar.count
```

```
=> 3
```

```
irb(main):012:0> █
```

```
irb(main):011:0> Bar.count
=> 3
irb(main):012:0> response=HTTParty.get("http://localhost:3000/api/bars", debug_output:$stdout); nil
opening connection to localhost:3000...
opened
<- "GET /api/bars HTTP/1.1\r\nAccept-Encoding: gzip;q=1.0,deflate;q=0.6,identity;q=0.3\r\nAccept: */*\r\nUser-Agent: Ruby\r\nConnection: close\r\nHost: localhost:3000\r\n\r\n"
-> "HTTP/1.1 200 OK \r\n"
-> "X-Frame-Options: SAMEORIGIN\r\n"
-> "X-Xss-Protection: 1; mode=block\r\n"
-> "X-Content-Type-Options: nosniff\r\n"
-> "Content-Type: application/json; charset=utf-8\r\n"
-> "Etag: W/\"be776e8efd16492be9813d524dc95459\" \r\n"
-> "Cache-Control: max-age=0, private, must-revalidate\r\n"
-> "X-Request-Id: a788f086-c2d0-4aa0-8b5d-6a4f2983661a\r\n"
-> "X-Runtime: 0.031855\r\n"
-> "Server: WEBrick/1.3.1 (Ruby/2.2.3/2015-08-18)\r\n"
-> "Date: Sat, 03 Dec 2016 04:52:13 GMT\r\n"
-> "Content-Length: 580\r\n"
-> "Connection: close\r\n"
-> "\r\n"
reading 580 bytes...
-> "[{\"id\":\"584200118a68181fbc05f264\",\"name\":\"test1\",\"created_at\":\"2016-12-02T23:13:21.598Z\",\"updated_at\":\"2016-12-02T23:13:21.598Z\",\"url\":\"http://localhost:3000/api/bars/584200118a68181fbc05f264\"},{\"id\":\"584200118a68181fbc05f265\",\"name\":\"test2\",\"created_at\":\"2016-12-02T23:13:21.603Z\",\"updated_at\":\"2016-12-02T23:13:21.603Z\",\"url\":\"http://localhost:3000/api/bars/584200118a68181fbc05f265\"},{\"id\":\"584200118a68181fbc05f266\",\"name\":\"test3\",\"created_at\":\"2016-12-02T23:13:21.603Z\",\"updated_at\":\"2016-12-02T23:13:21.603Z\",\"url\":\"http://localhost:3000/api/bars/584200118a68181fbc05f266\"}]"
read 580 bytes
Conn close
=> nil
irb(main):013:0> ■
```

```
irb(main):011:0> Bar.count
=> 3
irb(main):012:0> response=HTTParty.get("http://localhost:3000/api/bars", debug_output:$stdout); nil
opening connection to localhost:3000...
opened
<- "GET /api/bars HTTP/1.1\r\nAccept-Encoding: gzip;q=1.0,deflate;q=0.6,identity;q=0.3\r\nAccept: */*\r\nUser-Agent: Ruby\r\nConnection: close\r\nHost: localhost:3000\r\n\r\n"
-> "HTTP/1.1 200 OK \r\n"
-> "X-Frame-Options: SAMEORIGIN\r\n"
-> "X-Xss-Protection: 1; mode=block\r\n"
-> "X-Content-Type-Options: nosniff\r\n"
-> "Content-Type: application/json; charset=utf-8\r\n"
-> "Etag: W/\"be776e8efd16492be9813d524dc95459\" \r\n"
-> "Cache-Control: max-age=0, private, must-revalidate\r\n"
-> "X-Request-Id: a788f086-c2d0-4aa0-8b5d-6a4f2983661a\r\n"
-> "X-Runtime: 0.031855\r\n"
-> "Server: WEBrick/1.3.1 (Ruby/2.2.3/2015-08-18)\r\n"
-> "Date: Sat, 03 Dec 2016 04:52:13 GMT\r\n"
-> "Content-Length: 580\r\n"
-> "Connection: close\r\n"
-> "\r\n"
reading 580 bytes...
-> "[{\"id\":\"584200118a68181fbc05f264\",\"name\":\"test1\",\"created_at\":\"2016-12-02T23:13:21.598Z\",\"updated_at\":\"2016-12-02T23:13:21.598Z\",\"url\":\"http://localhost:3000/api/bars/584200118a68181fbc05f264\"},{\"id\":\"584200118a68181fbc05f265\",\"name\":\"test2\",\"created_at\":\"2016-12-02T23:13:21.603Z\",\"updated_at\":\"2016-12-02T23:13:21.603Z\",\"url\":\"http://localhost:3000/api/bars/584200118a68181fbc05f265\"},{\"id\":\"584200118a68181fbc05f266\",\"name\":\"test3\",\"created_at\":\"2016-12-02T23:13:21.603Z\",\"updated_at\":\"2016-12-02T23:13:21.603Z\",\"url\":\"http://localhost:3000/api/bars/584200118a68181fbc05f266\"}]"
read 580 bytes
Conn close
=> nil
irb(main):013:0> response.response
=> #<Net::HTTPResponse 200 OK readbody=true>
```



```
-> "Date: Sat, 03 Dec 2016 04:52:13 GMT\r\n"
-> "Content-Length: 580\r\n"
-> "Connection: close\r\n"
-> "\r\n"
```

reading 580 bytes...

```
-> "[{"id":"584200118a68181fbc05f264","name":"test1","created_at":"2016-12-02T23:13:21.598Z","updated_at":"2016-12-02T23:13:21.598Z","url":"http://localhost:3000/api/bars/584200118a68181fbc05f264"}, {"id":"584200118a68181fbc05f265","name":"test2","created_at":"2016-12-02T23:13:21.603Z","updated_at":"2016-12-02T23:13:21.603Z","url":"http://localhost:3000/api/bars/584200118a68181fbc05f265"}, {"id":"584200118a68181fbc05f266","name":"test3","created_at":"2016-12-02T23:13:21.603Z","updated_at":"2016-12-02T23:13:21.603Z","url":"http://localhost:3000/api/bars/584200118a68181fbc05f266"}]"
```

read 580 bytes

Conn close

=> nil

irb(main):013:0> response.response

=> #<Net::HTTPOK 200 OK readbody=true>

irb(main):014:0> pp response.parsed_response; nil

```
[{"id"=>"584200118a68181fbc05f264",
  "name"=>"test1",
  "created_at"=>"2016-12-02T23:13:21.598Z",
  "updated_at"=>"2016-12-02T23:13:21.598Z",
  "url"=>"http://localhost:3000/api/bars/584200118a68181fbc05f264"},
 {"id"=>"584200118a68181fbc05f265",
  "name"=>"test2",
  "created_at"=>"2016-12-02T23:13:21.603Z",
  "updated_at"=>"2016-12-02T23:13:21.603Z",
  "url"=>"http://localhost:3000/api/bars/584200118a68181fbc05f265"},
 {"id"=>"584200118a68181fbc05f266",
  "name"=>"test3",
  "created_at"=>"2016-12-02T23:13:21.603Z",
  "updated_at"=>"2016-12-02T23:13:21.603Z",
  "url"=>"http://localhost:3000/api/bars/584200118a68181fbc05f266"}]
```

=> nil

```
irb(main):016:0> response=HTTParty.post("http://localhost:3000/api/bars",body:{bar:{name:"test2a"}})
=> #<HTTParty::Response:0x7fe7e351a0e0 parsed_response={"id"=>"584251978a681830a47d20a6", "name"=>"test2a", "created_at"=>"2016-12-03T05:01:11.602Z", "updated_at"=>"2016-12-03T05:01:11.602Z", "url"=>"http://localhost:3000/api/bars/584251978a681830a47d20a6"}, @response=#<Net::HTTPCreated 201 Created readbody=true>, @headers={"x-frame-options"=>["SAMEORIGIN"], "x-xss-protection"=>["1; mode=block"], "x-content-type-options"=>["nosniff"], "location"=>["http://localhost:3000/api/bars/584251978a681830a47d20a6"], "content-type"=>["application/json; charset=utf-8"], "etag"=>["W/\"aef36e072ebc9a4ac55fa4f018eaa4e7\""], "cache-control"=>["max-age=0, private, must-revalidate"], "x-request-id"=>["c19cc327-b74a-4dba-972b-92e26d9d9802"], "x-runtime"=>["0.015601"], "server"=>["WEBrick/1.3.1 (Ruby/2.2.3/2015-08-18)"], "date"=>["Sat, 03 Dec 2016 05:01:11 GMT"], "content-length"=>["193"], "connection"=>["close"]}>
irb(main):017:0> █
```



```
irb(main):016:0> response=HTTParty.post("http://localhost:3000/api/bars",body:{bar:{name:"test2a"}})
=> #<HTTParty::Response:0x7fe7e351a0e0 parsed_response={"id"=>"584251978a681830a47d20a6", "name"=>"test2a", "created_at"=>"2016-12-03T05:01:11.602Z", "updated_at"=>"2016-12-03T05:01:11.602Z", "url"=>"http://localhost:3000/api/bars/584251978a681830a47d20a6"}, @response=#<Net::HTTPCreated 201 Created readbody=true>, @headers={"x-frame-options"=>["SAMEORIGIN"], "x-xss-protection"=>["1; mode=block"], "x-content-type-options"=>["nosniff"], "location"=>["http://localhost:3000/api/bars/584251978a681830a47d20a6"], "content-type"=>["application/json; charset=utf-8"], "etag"=>["W/\"aef36e072ebc9a4ac55fa4f018eaa4e7\""], "cache-control"=>["max-age=0, private, must-revalidate"], "x-request-id"=>["c19cc327-b74a-4dba-972b-92e26d9d9802"], "x-runtime"=>["0.015601"], "server"=>["WEBrick/1.3.1 (Ruby/2.2.3/2015-08-18)"], "date"=>["Sat, 03 Dec 2016 05:01:11 GMT"], "content-length"=>["193"], "connection"=>["close"]}>
irb(main):017:0> response.response
=> #<Net::HTTPCreated 201 Created readbody=true>
irb(main):018:0> pp response.parsed_response; nil
{"id"=>"584251978a681830a47d20a6",
 "name"=>"test2a",
 "created_at"=>"2016-12-03T05:01:11.602Z",
 "updated_at"=>"2016-12-03T05:01:11.602Z",
 "url"=>"http://localhost:3000/api/bars/584251978a681830a47d20a6"}
=> nil
irb(main):019:0> response=HTTParty.get("http://localhost:3000/api/bars/584251978a681830a47d20a6")
=> #<HTTParty::Response:0x7fe7e3b0c5e8 parsed_response={"id"=>"584251978a681830a47d20a6", "name"=>"test2a", "created_at"=>"2016-12-03T05:01:11.602Z", "updated_at"=>"2016-12-03T05:01:11.602Z", "url"=>"http://localhost:3000/api/bars/584251978a681830a47d20a6"}, @response=#<Net::HTTPOK 200 OK readbody=true>, @headers={"x-frame-options"=>["SAMEORIGIN"], "x-xss-protection"=>["1; mode=block"], "x-content-type-options"=>["nosniff"], "content-type"=>["application/json; charset=utf-8"], "etag"=>["W/\"aef36e072ebc9a4ac55fa4f018eaa4e7\""], "cache-control"=>["max-age=0, private, must-revalidate"], "x-request-id"=>["143861c5-bedc-4c9c-b637-0042fe1577bb"], "x-runtime"=>["0.008728"], "server"=>["WEBrick/1.3.1 (Ruby/2.2.3/2015-08-18)"], "date"=>["Sat, 03 Dec 2016 05:02:26 GMT"], "content-length"=>["193"], "connection"=>["close"]}>
irb(main):020:0> pp response.parsed_response; nil
```



```
ated_at"=>"2016-12-03T05:01:11.602Z", "updated_at"=>"2016-12-03T05:01:11.602Z", "url"=>"http://localhost:3000/api/bars/584251978a681830a47d20a6"}, @response=#<Net::HTTPCreated 201 Created readbody=true>, @headers={"x-frame-options"=>["SAMEORIGIN"], "x-xss-protection"=>["1; mode=block"], "x-content-type-options"=>["nosniff"], "location"=>["http://localhost:3000/api/bars/584251978a681830a47d20a6"], "content-type"=>["application/json; charset=utf-8"], "etag"=>["W/\"aef36e072ebc9a4ac55fa4f018eaa4e7\""], "cache-control"=>["max-age=0, private, must-revalidate"], "x-request-id"=>["c19cc327-b74a-4dba-972b-92e26d9d9802"], "x-runtime"=>["0.015601"], "server"=>["WEBrick/1.3.1 (Ruby/2.2.3/2015-08-18)"], "date"=>["Sat, 03 Dec 2016 05:01:11 GMT"], "content-length"=>["193"], "connection"=>["close"]}>
```

```
irb(main):017:0> response.response
```

```
=> #<Net::HTTPCreated 201 Created readbody=true>
```

```
irb(main):018:0> pp response.parsed_response; nil
```

```
{"id"=>"584251978a681830a47d20a6",  
 "name"=>"test2a",  
 "created_at"=>"2016-12-03T05:01:11.602Z",  
 "updated_at"=>"2016-12-03T05:01:11.602Z",  
 "url"=>"http://localhost:3000/api/bars/584251978a681830a47d20a6"}
```

```
=> nil
```

```
irb(main):019:0> response=HTTParty.get("http://localhost:3000/api/bars/584251978a681830a47d20a6")
```

```
=> #<HTTParty::Response:0x7fe7e3b0c5e8 parsed_response={"id"=>"584251978a681830a47d20a6", "name"=>"test2a", "created_at"=>"2016-12-03T05:01:11.602Z", "updated_at"=>"2016-12-03T05:01:11.602Z", "url"=>"http://localhost:3000/api/bars/584251978a681830a47d20a6"}, @response=#<Net::HTTPOK 200 OK readbody=true>, @headers={"x-frame-options"=>["SAMEORIGIN"], "x-xss-protection"=>["1; mode=block"], "x-content-type-options"=>["nosniff"], "content-type"=>["application/json; charset=utf-8"], "etag"=>["W/\"aef36e072ebc9a4ac55fa4f018eaa4e7\""], "cache-control"=>["max-age=0, private, must-revalidate"], "x-request-id"=>["143861c5-bedc-4c9c-b637-0042fe1577bb"], "x-runtime"=>["0.008728"], "server"=>["WEBrick/1.3.1 (Ruby/2.2.3/2015-08-18)"], "date"=>["Sat, 03 Dec 2016 05:02:26 GMT"], "content-length"=>["193"], "connection"=>["close"]}>
```

```
irb(main):020:0> pp response.parsed_response; nil
```

```
{"id"=>"584251978a681830a47d20a6",  
 "name"=>"test2a",  
 "created_at"=>"2016-12-03T05:01:11.602Z",  
 "updated_at"=>"2016-12-03T05:01:11.602Z",  
 "url"=>"http://localhost:3000/api/bars/584251978a681830a47d20a6"}
```

```
=> nil
```



```
irb(main):021:0> response=HTTParty.delete("http://localhost:3000/api/bars/584251978a681830a47d20a6")
=> #<HTTParty::Response:0x10 parsed_response=nil, @response=#<Net::HTTPNoContent 204 No Content readbody=true>,
  @headers={"x-frame-options"=>["SAMEORIGIN"], "x-xss-protection"=>["1; mode=block"], "x-content-type-options"=>[
"nosniff"], "cache-control"=>["no-cache"], "x-request-id"=>["783d7272-da87-4b9e-9322-27d45506f768"], "x-runtime"
=>["0.004799"], "server"=>["WEBrick/1.3.1 (Ruby/2.2.3/2015-08-18)"], "date"=>["Sat, 03 Dec 2016 05:03:07 GMT"],
"connection"=>["close"]}>
irb(main):022:0> pp response.parsed_response; nil
```



```
/application.rb:165:in `call':</a><br><a class=\"trace-frames\" data-frame-id=\"64\" href=\"#\">rack (1.6.5)
lib/rack/lock.rb:17:in `call':</a><br><a class=\"trace-frames\" data-frame-id=\"65\" href=\"#\">rack (1.6.5)
lib/rack/content_length.rb:15:in `call':</a><br><a class=\"trace-frames\" data-frame-id=\"66\" href=\"#\">rac
k (1.6.5) lib/rack/handler/webrick.rb:88:in `service':</a><br><a class=\"trace-frames\" data-frame-id=\"67\"
href=\"#\">/Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/httpserver.rb:138:in `service':</a><br><a
class=\"trace-frames\" data-frame-id=\"68\" href=\"#\">/Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/h
ttpserver.rb:94:in `run':</a><br><a class=\"trace-frames\" data-frame-id=\"69\" href=\"#\">/Users/jim/.rbenv/
versions/2.2.3/lib/ruby/2.2.0/webrick/server.rb:294:in `block in start_thread':</a><br></code></pre>\n    </d
iv>\n\n <script type=\"text/javascript\">\n    var traceFrames = document.getElementsByClassName('trace-frames'
);\n    var selectedFrame, currentSource = document.getElementById('frame-source-0');\n\n    // Add click listen
ers for all stack frames\n    for (var i = 0; i < traceFrames.length; i++) {\n        traceFrames[i].addEventListener
ner('click', function(e) {\n            e.preventDefault();\n            var target = e.target;\n            var frame_id =
target.dataset.frameId;\n\n            if (selectedFrame) {\n                selectedFrame.className = selectedFrame.class
Name.replace(\"selected\", \"\");\n                target.className += \" selected\";\n                selectedFram
e = target;\n\n                // Change the extracted source code\n                changeSourceExtract(frame_id);\n            }\n\n            function changeSourceExtract(frame_id) {\n                var el = document.getElementById('frame-source-' + fram
e_id);\n                if (currentSource && el) {\n                    currentSource.className += \" hidden\";\n                    el.clas
sName = el.className.replace(\" hidden\", \"\");\n                    currentSource = el;\n                }\n            }\n        }\n    }\n</script>\n</div>\n\n\n<h2 style=\"margin-top: 30px\">Request</h2>\n<p><b>Parameters</b>:</p> <pre>{&quot;form
at&quot;=&gt;;json,\n &quot;id&quot;=&gt;;&quot;584251978a681830a47d20a6&quot;}</pre>\n\n<div class=\"details\">\n  <div class=\"summary\"><a href=\"#\" onclick=\"return toggleSessionDump()\">Toggle session dump</a></div>\n  <div id=\"session_dump\" style=\"display:none\"><pre></pre></div>\n\n  <div class=\"details\">\n    <div cla
ss=\"summary\"><a href=\"#\" onclick=\"return toggleEnvDump()\">Toggle env dump</a></div>\n    <div id=\"env_dump\"
\" style=\"display:none\"><pre>GATEWAY_INTERFACE: &quot;CGI/1.1&quot;;\nHTTP_ACCEPT: &quot;*/*&quot;;\nHTTP_ACCEPT_
ENCODING: &quot;gzip;q=1.0,deflate;q=0.6,identity;q=0.3&quot;;\nREMOTE_ADDR: &quot;::1&quot;;\nREMOTE_HOST: &quot;
::1&quot;;\nSERVER_NAME: &quot;localhost&quot;;\nSERVER_PROTOCOL: &quot;HTTP/1.1&quot;;</pre></div>\n\n\n<h2
style=\"margin-top: 30px\">Response</h2>\n<p><b>Headers</b>:</p> <pre>None</pre>\n\n\n</div>\n\n\n</body>\n</html>
\n\", @response=#<Net::HTTPNotFound 404 Not Found readbody=true>, @headers={\"content-type\"=>[\"text/html; charset
=utf-8\"], \"content-length\"=>[\"86829\"], \"x-request-id\"=>[\"80b20cc6-54a3-47d7-bf28-0ec29615b9fc\"], \"x-runtime\"=>[\"
0.127523\"], \"server\"=>[\"WEBrick/1.3.1 (Ruby/2.2.3/2015-08-18)\"], \"date\"=>[\"Sat, 03 Dec 2016 05:04:56 GMT\"], \"con
nection\"=>[\"close\"]}>
irb(main):025:0> response.response
=> #<Net::HTTPNotFound 404 Not Found readbody=true>
```



```
n `call&#39;</a><br><a class="trace-frames" data-frame-id="62" href="#">railties (4.2.6) lib/rails/engine.  
rb:518:in `call&#39;</a><br><a class="trace-frames" data-frame-id="63" href="#">railties (4.2.6) lib/rails  
/application.rb:165:in `call&#39;</a><br><a class="trace-frames" data-frame-id="64" href="#">rack (1.6.5)  
lib/rack/lock.rb:17:in `call&#39;</a><br><a class="trace-frames" data-frame-id="65" href="#">rack (1.6.5)  
lib/rack/content_length.rb:15:in `call&#39;</a><br><a class="trace-frames" data-frame-id="66" href="#">rac  
k (1.6.5) lib/rack/handler/webrick.rb:88:in `service&#39;</a><br><a class="trace-frames" data-frame-id="67"  
href="#">/Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/httpserver.rb:138:in `service&#39;</a><br><a  
class="trace-frames" data-frame-id="68" href="#">/Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/h  
ttpserver.rb:94:in `run&#39;</a><br><a class="trace-frames" data-frame-id="69" href="#">/Users/jim/.rbenv/  
versions/2.2.3/lib/ruby/2.2.0/webrick/server.rb:294:in `block in start_thread&#39;</a><br></code></pre>\n    </d  
iv>\n\n<script type="text/javascript">\n    var traceFrames = document.getElementsByClassName('trace-frames'  
);\n    var selectedFrame, currentSource = document.getElementById('frame-source-0');\n\n    // Add click listen  
ers for all stack frames\n    for (var i = 0; i < traceFrames.length; i++) {\n        traceFrames[i].addEventListener('click', function(e) {\n            e.preventDefault();\n            var target = e.target;\n            var frame_id = target.dataset.frameId;\n\n            if (selectedFrame) {\n                selectedFrame.className = selectedFrame.class  
Name.replace("selected", "");\n            }\n            target.className += " selected";\n            selectedFram  
e = target;\n\n            // Change the extracted source code\n            changeSourceExtract(frame_id);\n        });\n    }\n\n    function changeSourceExtract(frame_id) {\n        var el = document.getElementById('frame-source-' + fram  
e_id);\n        if (currentSource && el) {\n            currentSource.className += " hidden";\n            el.clas  
sName = el.className.replace(" hidden", "");\n            currentSource = el;\n        }\n    }\n</script>\n\n\n<h2 style="margin-top: 30px">Request</h2>\n<p><b>Parameters</b></p>\n<pre>{"format": "json", "id": "584251978a681830a47d20a6"}</pre>\n<div class="details">\n  <div class="summary"><a href="#" onclick="return toggleSessionDump()">Toggle session dump</a></div>\n  <div id="session_dump" style="display: none"><pre></pre></div>\n  <div class="details">\n    <div cla  
ss="summary"><a href="#" onclick="return toggleEnvDump()">Toggle env dump</a></div>\n    <div id="env_dump"  
" style="display: none"><pre>GATEWAY_INTERFACE: "CGI/1.1"\nHTTP_ACCEPT: "*/*"\nHTTP_ACCEPT  
ENCODING: "gzip;q=1.0, deflate;q=0.6, identity;q=0.3"\nREMOTE_ADDR: "::1"\nREMOTE_HOST: "  
::1"\nSERVER_NAME: "localhost"\nSERVER_PROTOCOL: "HTTP/1.1"</pre></div>\n  </div>\n  <h2 style="margin-top: 30px">Response</h2>\n  <p><b>Headers</b></p>\n  <pre>None</pre>\n</div>\n</body>\n</html>\n", @response=#<Net::HTTPNotFound 404 Not Found readbody=true, @headers={"content-type"=>["text/html; charset  
=utf-8"], "content-length"=>["86829"], "x-request-id"=>["80b20cc6-54a3-47d7-bf28-9615b9fc"], "x-runtime"=>["  
0.127523"], "server"=>["WEBrick/1.3.1 (Ruby/2.2.3/2015-08-18)"], "date"=>["Sat, 12 Dec 2016 05:04:56 GMT"], "con
```



```
/application.rb:165:in `call':</a><br><a class=\"trace-frames\" data-frame-id=\"64\" href=\"#\">rack (1.6.5)
lib/rack/lock.rb:17:in `call':</a><br><a class=\"trace-frames\" data-frame-id=\"65\" href=\"#\">rack (1.6.5)
lib/rack/content_length.rb:15:in `call':</a><br><a class=\"trace-frames\" data-frame-id=\"66\" href=\"#\">rac
k (1.6.5) lib/rack/handler/webrick.rb:88:in `service':</a><br><a class=\"trace-frames\" data-frame-id=\"67\"
href=\"#\">/Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/httpserver.rb:138:in `service':</a><br><a
class=\"trace-frames\" data-frame-id=\"68\" href=\"#\">/Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/h
ttpserver.rb:94:in `run':</a><br><a class=\"trace-frames\" data-frame-id=\"69\" href=\"#\">/Users/jim/.rbenv/
versions/2.2.3/lib/ruby/2.2.0/webrick/server.rb:294:in `block in start_thread':</a><br></code></pre>\n    </d
iv>\n\n <script type=\"text/javascript\">\n    var traceFrames = document.getElementsByClassName('trace-frames'
);\n    var selectedFrame, currentSource = document.getElementById('frame-source-0');\n\n    // Add click listen
ers for all stack frames\n    for (var i = 0; i < traceFrames.length; i++) {\n        traceFrames[i].addEventListener
ner('click', function(e) {\n            e.preventDefault();\n            var target = e.target;\n            var frame_id =
target.dataset.frameId;\n\n            if (selectedFrame) {\n                selectedFrame.className = selectedFrame.class
Name.replace(\"selected\", \"\");\n                target.className += \" selected\";\n                selectedFram
e = target;\n\n                // Change the extracted source code\n                changeSourceExtract(frame_id);\n            }\n\n            function changeSourceExtract(frame_id) {\n                var el = document.getElementById('frame-source-' + fram
e_id);\n                if (currentSource && el) {\n                    currentSource.className += \" hidden\";\n                    el.clas
sName = el.className.replace(\" hidden\", \"\");\n                    currentSource = el;\n                }\n            }\n        }\n    }\n</script>\n</div>\n\n\n<h2 style=\"margin-top: 30px\">Request</h2>\n<p><b>Parameters</b>:</p> <pre>{&quot;form
at&quot;=&gt;;json,\n &quot;id&quot;=&gt;;&quot;584251978a681830a47d20a6&quot;}</pre>\n\n<div class=\"details\">\n  <div class=\"summary\"><a href=\"#\" onclick=\"return toggleSessionDump()\">Toggle session dump</a></div>\n  <div id=\"session_dump\" style=\"display:none\"><pre></pre></div>\n\n  <div class=\"details\">\n    <div cla
ss=\"summary\"><a href=\"#\" onclick=\"return toggleEnvDump()\">Toggle env dump</a></div>\n    <div id=\"env_dump\"
\" style=\"display:none\"><pre>GATEWAY_INTERFACE: &quot;CGI/1.1&quot;;\nHTTP_ACCEPT: &quot;*/*&quot;;\nHTTP_ACCEPT_
ENCODING: &quot;gzip;q=1.0,deflate;q=0.6,identity;q=0.3&quot;;\nREMOTE_ADDR: &quot;::1&quot;;\nREMOTE_HOST: &quot;
::1&quot;;\nSERVER_NAME: &quot;localhost&quot;;\nSERVER_PROTOCOL: &quot;HTTP/1.1&quot;;</pre></div>\n\n\n<h2
style=\"margin-top: 30px\">Response</h2>\n<p><b>Headers</b>:</p> <pre>None</pre>\n\n\n</div>\n\n\n</body>\n</html>
\n\", @response=#<Net::HTTPNotFound 404 Not Found readbody=true>, @headers={\"content-type\"=>[\"text/html; charset
=utf-8\"], \"content-length\"=>[\"86829\"], \"x-request-id\"=>[\"80b20cc6-54a3-47d7-bf28-0ec29615b9fc\"], \"x-runtime\"=>[\"
0.127523\"], \"server\"=>[\"WEBrick/1.3.1 (Ruby/2.2.3/2015-08-18)\"], \"date\"=>[\"Sat, 03 Dec 2016 05:04:56 GMT\"], \"con
nection\"=>[\"close\"]}>
irb(main):025:0> response.response
=> #<Net::HTTPNotFound 404 Not Found readbody=true>
```


Started GET "/api/bars/584251978a681830a47d20a6" for ::1 at 2016-12-03 00:04:56 -0500

Processing by BarsController#show as JSON

Parameters: {"id"=>"584251978a681830a47d20a6"}

Completed 404 Not Found in 1ms (ActiveRecord: 0.0ms)

Mongoid::Errors::DocumentNotFound (

message:

Document(s) not found for class Bar with id(s) 584251978a681830a47d20a6.

summary:

When calling Bar.find with an id or array of ids, each parameter must match a document in the database or this error will be raised. The search was for the id(s): 584251978a681830a47d20a6 ... (1 total) and the following id s were not found: 584251978a681830a47d20a6.

resolution:

Search for an id that is in the database or set the Mongoid.raise_not_found_error configuration option to false, which will cause a nil to be returned instead of raising this error when searching for a single id, or only the matched documents when searching for multiples.):

app/controllers/bars_controller.rb:43:in `set_bar'

Rendered /Users/jim/.rbenv/versions/2.2.3/lib/ruby/gems/2.2.0/gems/actionpack-4.2.6/lib/action_dispatch/middleware/templates/rescues/_source.erb (3.7ms)

Rendered /Users/jim/.rbenv/versions/2.2.3/lib/ruby/gems/2.2.0/gems/actionpack-4.2.6/lib/action_dispatch/middleware/templates/rescues/_trace.html.erb (2.1ms)

Rendered /Users/jim/.rbenv/versions/2.2.3/lib/ruby/gems/2.2.0/gems/actionpack-4.2.6/lib/action_dispatch/middleware/templates/rescues/_request_and_response.html.erb (4.9ms)

Rendered /Users/jim/.rbenv/versions/2.2.3/lib/ruby/gems/2.2.0/gems/actionpack-4.2.6/lib/action_dispatch/middleware/templates/rescues/diagnostics.html.erb within rescues/layout (52.0ms)

Started GET "/api/bars/584251978a681830a47d20a6" for ::1 at 2016-12-03 00:04:56 -0500

Processing by BarsController#show as JSON

Parameters: {"id"=>"584251978a681830a47d20a6"}

Completed 404 Not Found in 1ms (ActiveRecord: 0.0ms)

Mongoid::Errors::DocumentNotFound (

message:

Document(s) not found for class Bar with id(s) 584251978a681830a47d20a6.

summary:

When calling Bar.find with an id or array of ids, each parameter must match a document in the database or this error will be raised. The search was for the id(s): 584251978a681830a47d20a6 ... (1 total) and the following id s were not found: 584251978a681830a47d20a6.

resolution:

Search for an id that is in the database or set the Mongoid.raise_not_found_error configuration option to false, which will cause a nil to be returned instead of raising this error when searching for a single id, or only the matched documents when searching for multiples.):

app/controllers/bars_controller.rb:43:in `set_bar'

Rendered /Users/jim/.rbenv/versions/2.2.3/lib/ruby/gems/2.2.0/gems/actionpack-4.2.6/lib/action_dispatch/middleware/templates/rescues/_source.erb (3.7ms)

Rendered /Users/jim/.rbenv/versions/2.2.3/lib/ruby/gems/2.2.0/gems/actionpack-4.2.6/lib/action_dispatch/middleware/templates/rescues/_trace.html.erb (2.1ms)

Rendered /Users/jim/.rbenv/versions/2.2.3/lib/ruby/gems/2.2.0/gems/actionpack-4.2.6/lib/action_dispatch/middleware/templates/rescues/_request_and_response.html.erb (4.9ms)

Rendered /Users/jim/.rbenv/versions/2.2.3/lib/ruby/gems/2.2.0/gems/actionpack-4.2.6/lib/action_dispatch/middleware/templates/rescues/diagnostics.html.erb within rescues/layout (52.0ms)


```
/application.rb:165:in `call': /Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/httpserver.rb:138:in `service'
lib/rack/lock.rb:17:in `call': /Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/httpserver.rb:138:in `service'
lib/rack/content_length.rb:15:in `call': /Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/httpserver.rb:138:in `service'
k (1.6.5) lib/rack/handler/webrick.rb:88:in `service': /Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/httpserver.rb:138:in `service'
href="/Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/httpserver.rb:138:in `service'
class="trace-frames" data-frame-id="68" href="/Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/httpserver.rb:138:in `service'
ttptserver.rb:94:in `run': /Users/jim/.rbenv/versions/2.2.3/lib/ruby/2.2.0/webrick/server.rb:294:in `block in start_thread'
div>\n\n <script type="text/javascript">\n    var traceFrames = document.getElementsByClassName('trace-frames');\n    var selectedFrame, currentSource = document.getElementById('frame-source-0');\n    // Add click listeners for all stack frames\n    for (var i = 0; i < traceFrames.length; i++) {\n        traceFrames[i].addEventListener('click', function(e) {\n            e.preventDefault();\n            var target = e.target;\n            var frame_id = target.dataset.frameId;\n            if (selectedFrame) {\n                selectedFrame.className = selectedFrame.className.replace("selected", "");\n            }\n            target.className += " selected";\n            selectedFrame = target;\n            // Change the extracted source code\n            changeSourceExtract(frame_id);\n        });\n        function changeSourceExtract(frame_id) {\n            var el = document.getElementById('frame-source-' + frame_id);\n            if (currentSource && el) {\n                currentSource.className += " hidden";\n                el.className = el.className.replace(" hidden", "");\n                currentSource = el;\n            }\n        }\n    }\n</script>\n\n\n<h2 style="margin-top: 30px">Request</h2>\n<p><b>Parameters</b></p>\n<pre>{"format": "json", "id": "584251978a681830a47d20a6"}</pre>\n<div class="details">\n  <div class="summary"><a href="#" onclick="return toggleSessionDump()">Toggle session dump</a></div>\n  <div id="session_dump" style="display:none"><pre></pre></div>\n  <div class="details">\n    <div class="summary"><a href="#" onclick="return toggleEnvDump()">Toggle env dump</a></div>\n    <div id="env_dump" style="display:none"><pre>GATEWAY_INTERFACE: "CGI/1.1"\nHTTP_ACCEPT: "*/*"
HTTP_ACCEPT_ENCODING: "gzip;q=1.0,deflate;q=0.6,identity;q=0.3"
REMOTE_ADDR: "::1"
REMOTE_HOST: ""
SERVER_NAME: "localhost"
SERVER_PROTOCOL: "HTTP/1.1"</pre></div>\n  </div>\n  <h2 style="margin-top: 30px">Response</h2>\n  <p><b>Headers</b></p>\n  <pre>None</pre>\n</div>\n</body>\n</html>\n", @response=#<Net::HTTPNotFound 404 Not Found readbody=true>, @headers={"content-type"=>["text/html; charset=utf-8"], "content-length"=>["86829"], "x-request-id"=>["80b20cc6-54a3-47d7-bf28-0ec29615b9fc"], "x-runtime"=>["0.127523"], "server"=>["WEBrick/1.3.1 (Ruby/2.2.3/2015-08-18)"], "date"=>["Sat, 03 Dec 2016 05:04:56 GMT"], "connection"=>["close"]}>\nirb(main):025:0> response.response\n=> #<Net::HTTPNotFound 404 Not Found readbody=true>
```


Summary

- ✧ Web Service Client using HTTParty
 - Ad-hoc scripting

What's Next?

- ✧ Cross-Origin Resource Sharing (CORS)