



# Get Hip with JHipster!

Matt Raible • <http://raibledesigns.com>



Photos by  McGinity Photo

 **RAIBLE DESIGNS**  
ENTERPRISE OPEN SOURCE CONSULTING





# Who is **Matt Raible**?

Father, Skier, Mountain  
Biker, Whitewater Rafter

**Web Framework Connoisseur**

Founder of AppFuse



**Bus Lover**

Blogger on raibledesigns.com

# What about **YOU**?

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Are you a Java Developer?

How long have you been doing web development?

Do you like JSF? Do you like GWT?

Do you like JavaScript?



Do you want to be a hip Java Developer?



# Java 8

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Parallel Collections

JSR 310 Date and Time API

Functional Interfaces with default method

Lambda Expressions (a.k.a. Closures)

```
// sort a list by lastName  
List<Person> persons = ...;  
persons.sort((p1, p2) ->  
    p1.getLastName().compareTo(p2.getLastName()));
```

Nashorn JavaScript Engine





# Hipster

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n. noun

1. One who is exceptionally aware of or interested in the latest trends and tastes.





# Latest trends in JavaLand?

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Annotations

Environments: dev, test, production

Microservices

Container-less Deployment

Monitoring





# Spring Boot

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Create stand-alone Spring applications

Embeds Tomcat, Jetty or Undertow directly

Provides opinionated 'starter' POMs to simplify your Maven configuration

Also supports/promotes using Gradle



# Spring Boot

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Automatically configures Spring whenever possible

Provides production-ready features such as metrics, health checks and externalized configuration

Absolutely no code generation and no requirement for XML configuration

Grails 3.0 is based on Spring Boot



# SPRING INITIALIZR @ [start.spring.io](http://start.spring.io)

```
~75% [mraible:~] $ curl start.spring.io
```

[illegible]

**:: Spring Initializr ::** <https://start.spring.io>

This service generates quickstart projects that can be easily customized. Possible customizations include a project's dependencies, Java version, and build system or build structure. See below for further details.

The services uses a HAL based hypermedia format to expose a set of resources to interact with. If you access this root resource requesting application/json as media type the response will contain the following links:

| Rel            | Description                             |
|----------------|-----------------------------------------|
| gradle-build   | Generate a Gradle build file            |
| gradle-project | Generate a Gradle based project archive |
| maven-build    | Generate a Maven pom.xml                |





# Spring Boot Demo



# Latest trends in Web Development?

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JavaScript MVC Frameworks

CSS 3 with Animations

Mobile First

Front-End Optimization

REST APIs





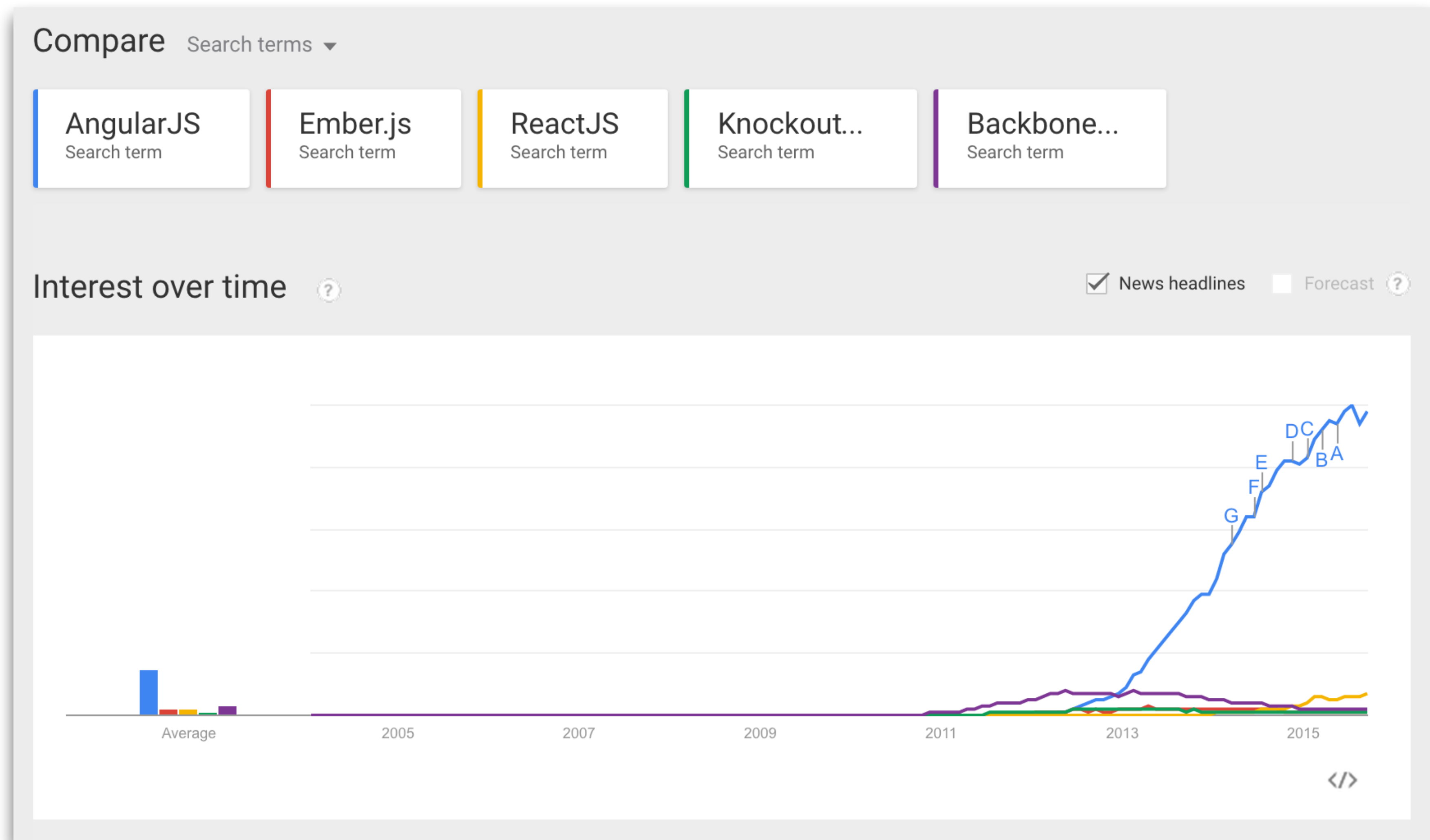


# ANGULARJS

Google

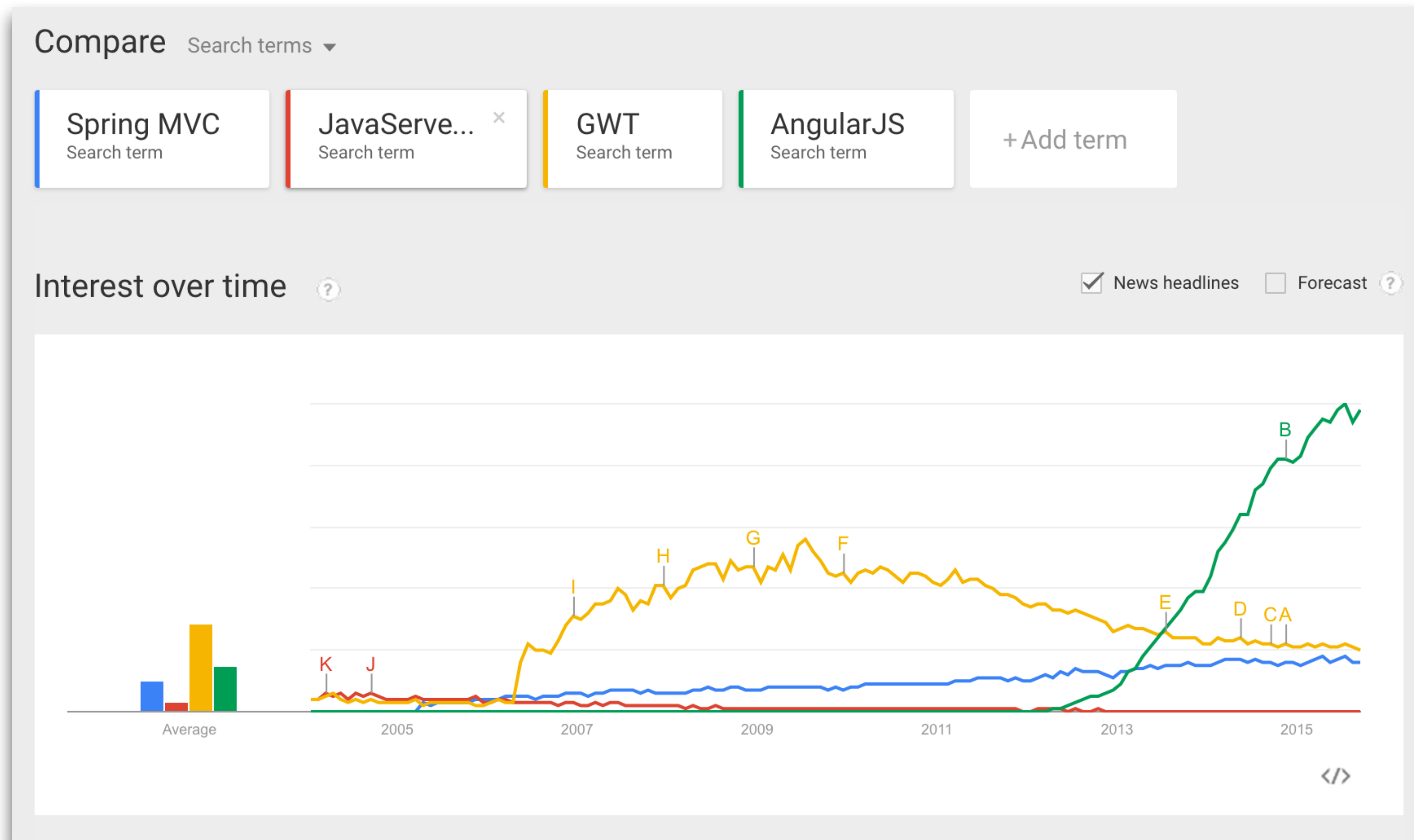


# Google Trends





# Google Trends





# The most starred project on GitHub?

Search

stars:>1

Search

Repositories1,208,784

Code

Issues

Users

Languages

JavaScript238,670

Python126,490

Java108,622

Ruby103,529

PHP93,183

C57,203

C++50,630

Objective-C42,560

Shell34,696

We've found 1,208,784 repository results

Sort: Best match

twbs/bootstrap

CSS★ 88,810🔗 37,206

The most popular HTML, CSS, and JavaScript framework for developing responsive, mobile first projects on the web.

Updated 8 hours ago

vhf/free-programming-books

★ 45,134🔗 10,379

Freely available programming books

Updated 23 hours ago

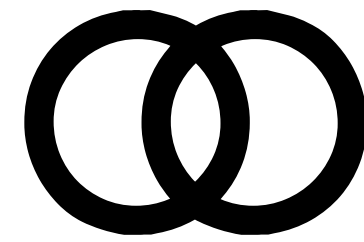
angular/angular.js

JavaScript★ 44,106🔗 20,051

HTML enhanced for web apps

# Wouldn't it be hip if...?

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# JHipster

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<http://jhipster.github.io/>

*Greetings, Java Hipster!*



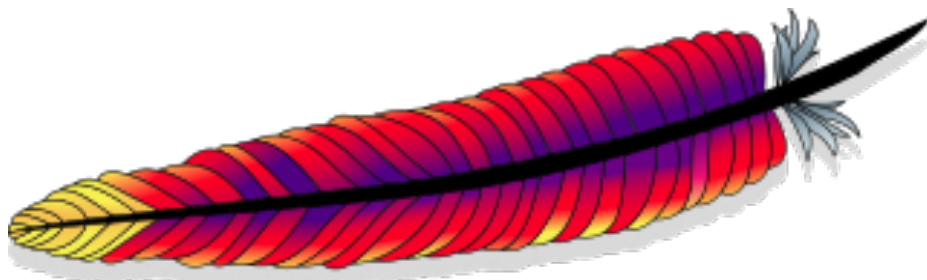
JHipster is a  
**Yeoman generator**,



used to create a  
**Spring Boot + AngularJS**  
project.



# JHipster Project



## Web Statistics, October 2015

275K Page Views

10K Downloads

## GitHub Statistics

2961 Stars

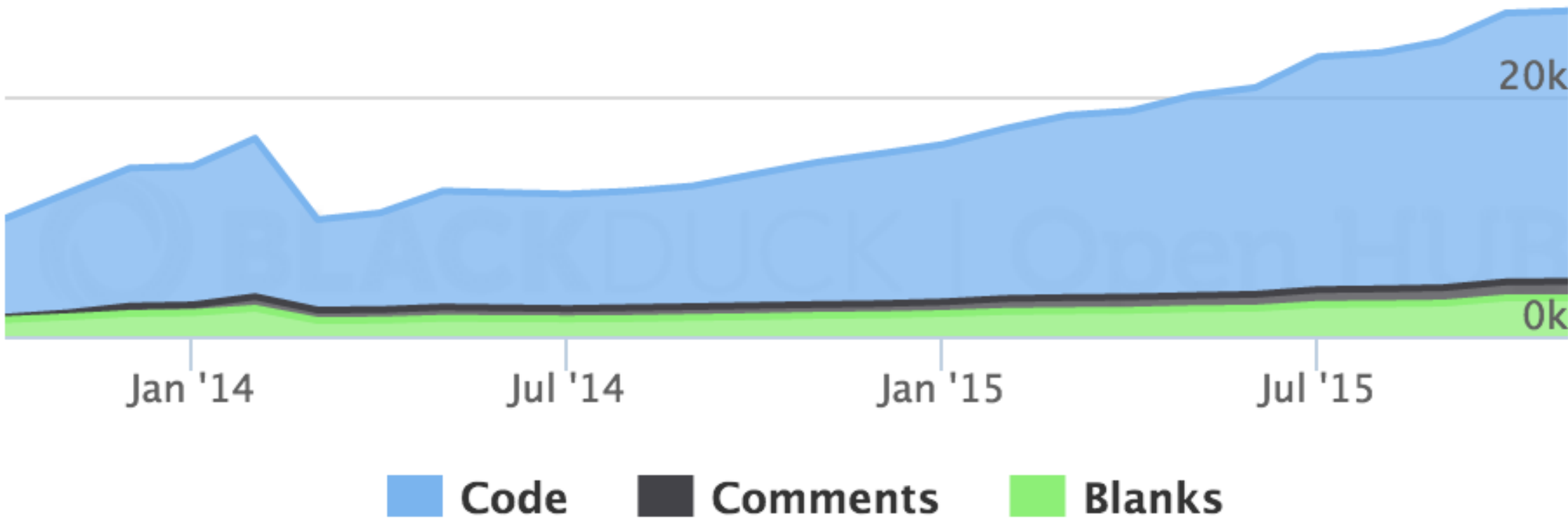
159 Contributors

### Languages



|            |     |         |     |
|------------|-----|---------|-----|
| JavaScript | 40% | Java    | 41% |
| HTML       | 8%  | 5 Other | 11% |

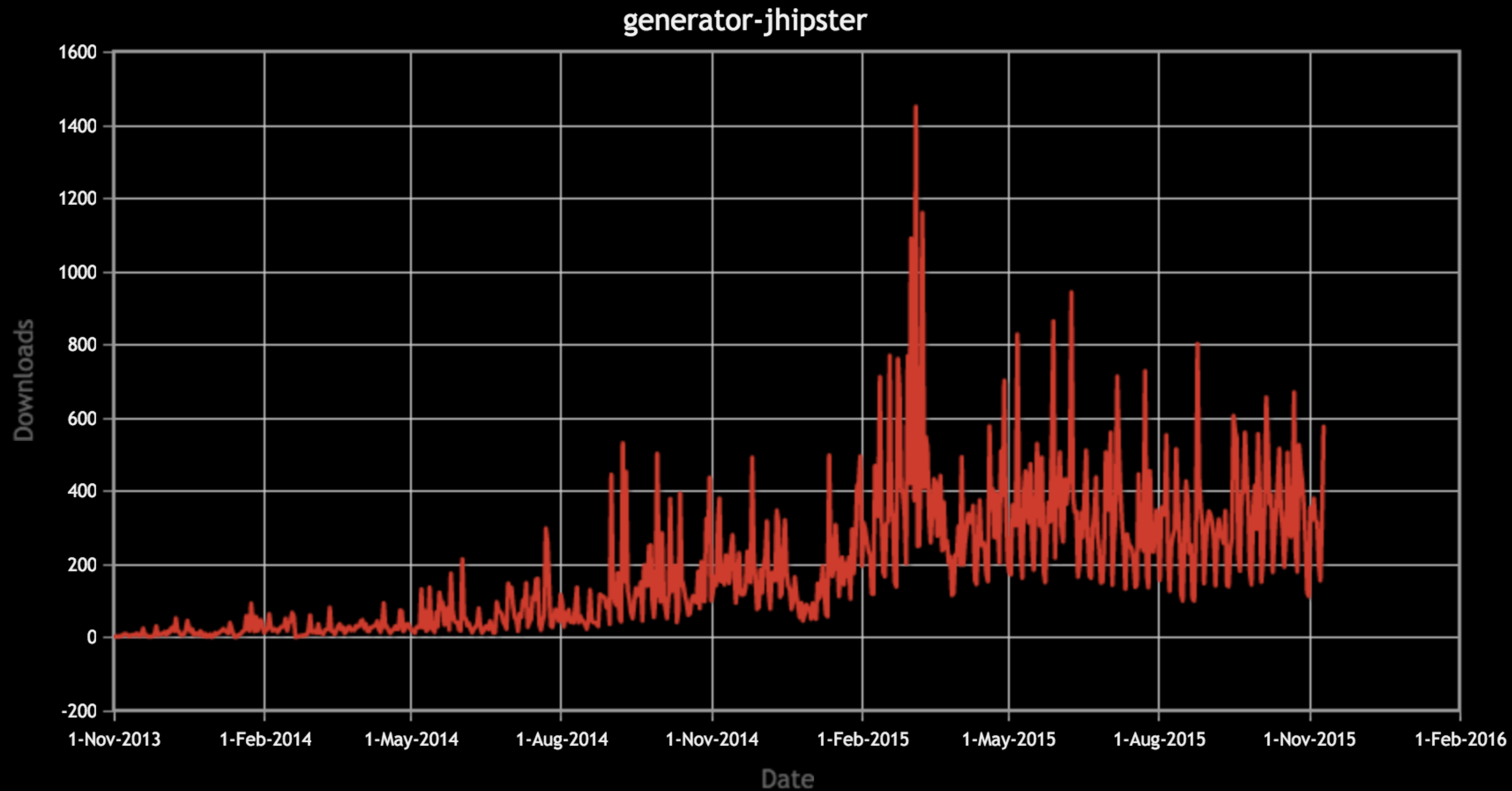
### Lines of Code



<https://www.openhub.net/p/generator-jhipster>



# JHipster Downloads



**generator-jhipster**

[open on npm](#)

Total downloads: 133419  
Last month: 10288  
Last peak: 2015-03-06 (1449)

Maintainers: [jdubois](#)

[Tweet #npmstats](#)



# JHipster

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## Foundational Frameworks

Spring Boot

Spring Security

AngularJS

Bootstrap

Metrics

## Project Options

Java 7 or Java 8

Maven or Gradle

Authentication Type: cookie-based (with Social), token-based or OAuth2

Type of Database: SQL or NoSQL

Caching: EhCache or Hazelcast

Grunt or Gulp.js



# JHipster Features

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Authentication and Security

Spring Boot Metrics Dashboard

Bootstrap and AngularJS Integrated

REST API with Spring MVC

JPA Support and NoSQL Support

CRUD Generation

Internationalization



# Yeoman

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<http://yeoman.io/>

The web's scaffolding tool for modern webapps

Helps you kickstart new projects

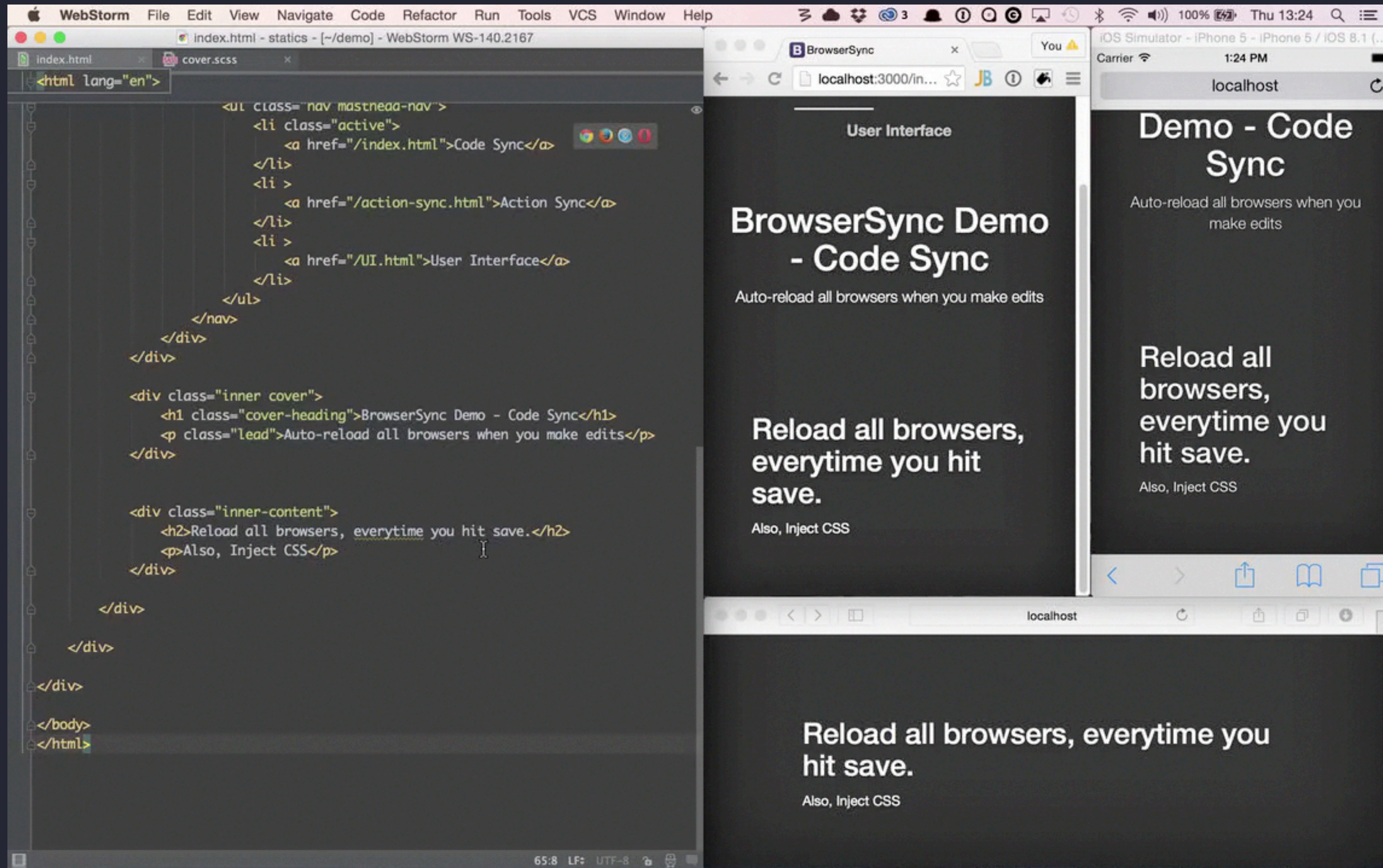
Promotes the Yeoman workflow





# Browsersync

<http://www.browsersync.io/>









# Demo Goals

Generate a basic blog application

Look at its configuration

Generate the CRUD entities

Limit blogs to current user, allow HTML

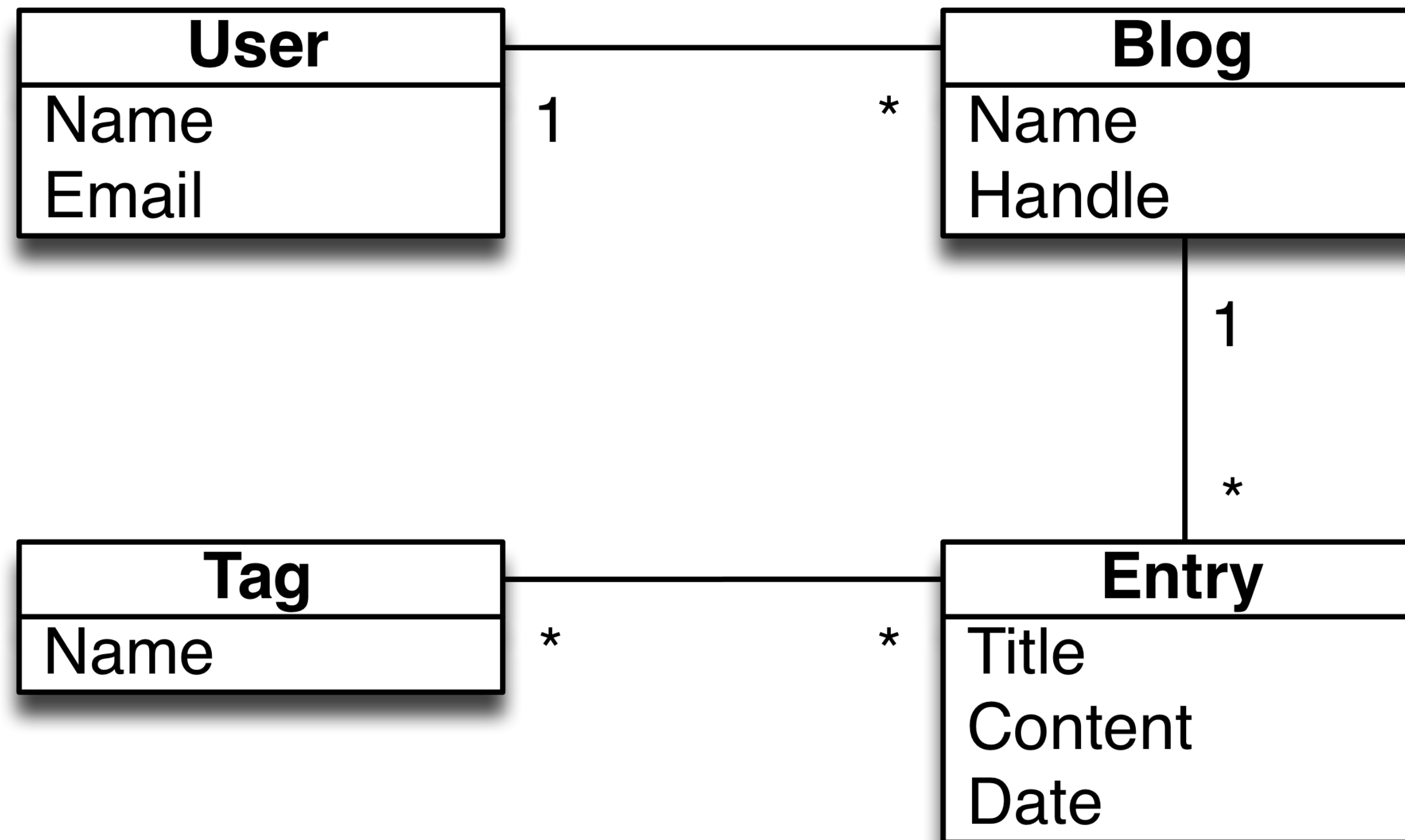
Deploy to  heroku



... all in 30 minutes!

# Demo Application

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# Load Testing with Gatling



High Performance

Scala, Akka and Netty

Nice HTML-based Reporting

Scenario Recorder

```
val scn = scenario("Test the Blog entity")
  .exec(http("First unauthenticated request")
    .get("/api/account")
    .headers(headers_http)
    .check(status.is(401)))
  .pause(10)
  .exec(http("Authentication")
    .post("/api/authenticate")
    .headers(headers_http_authentication)
    .formParam("username", "admin")
    .formParam("password", "admin")
    .check(jsonPath("$.token").saveAs("x_auth_token"))))
  .pause(1)
  .exec(http("Authenticated request")
    .get("/api/account")
    .headers(headers_http_authenticated)
    .check(status.is(200)))
  .pause(10)
  .repeat(2) {
    exec(http("Get all blogs")
      .get("/api/blogs")
      .headers(headers_http_authenticated)
      .check(status.is(200)))
    .pause(10 seconds, 20 seconds)
    .exec(http("Create new blog")
      .put("/api/blogs")
      .body(jsonBody))
  }
```

# What about UI Testing?

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**Jasmine**



**Protractor**  
end to end testing for AngularJS

<http://www.jhipster-book.com/#!/news/entry/adding-protractor-tests>



# How sweet is JHipster?!

AngularJS, Java 8, Microservices - what more could you want?



# Angular 2.0

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```
<input type="text" [value]="firstName">
```

```
<button (click)="addPerson()">Add</button>
```

```
<input type="checkbox" [checked]="someProperty">
```



# Concepts Eliminated in Angular 2.0

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Controllers

Directive Definition Object

\$scope

angular.module

jqLite



# Angular 2: Template Syntax

A screenshot of a video player interface. The left pane shows TypeScript code for an Angular 2 component named 'Hello'. The right pane shows a live browser preview of the component running on localhost:9000. The browser shows a form with a 'Name:' label, a text input, a 'Hello !' message, and a 'Click me' button. The video player has a play button in the center and a progress bar at the bottom showing 11:07.

```
@Component({
  selector: 'hello'
})
@Template({
  inline: `
    <div>
      <label>Name:</label>
      <input type="text" #ref>
      <hr>
      <h1>Hello {{ref.value}}!</h1>
    </div>

    <button id="button" (custom)="onCustom()" (click)="onClick(ref)">Click me
  `
})
export class Hello {
  constructor() {
    var button = document.querySelector("body /deep/ #button")
    setInterval(function() {
      button.dispatchEvent(new Event("custom"));
    }, 1000);
  }

  onClick(value) {
    console.log(value);
  }

  onCustom() {
    console.log("custom");
  }
}
```

<https://egghead.io/lessons/angularjs-angular-2-template-syntax>



# The JHipster Mini-Book

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Written with AsciiDoctor

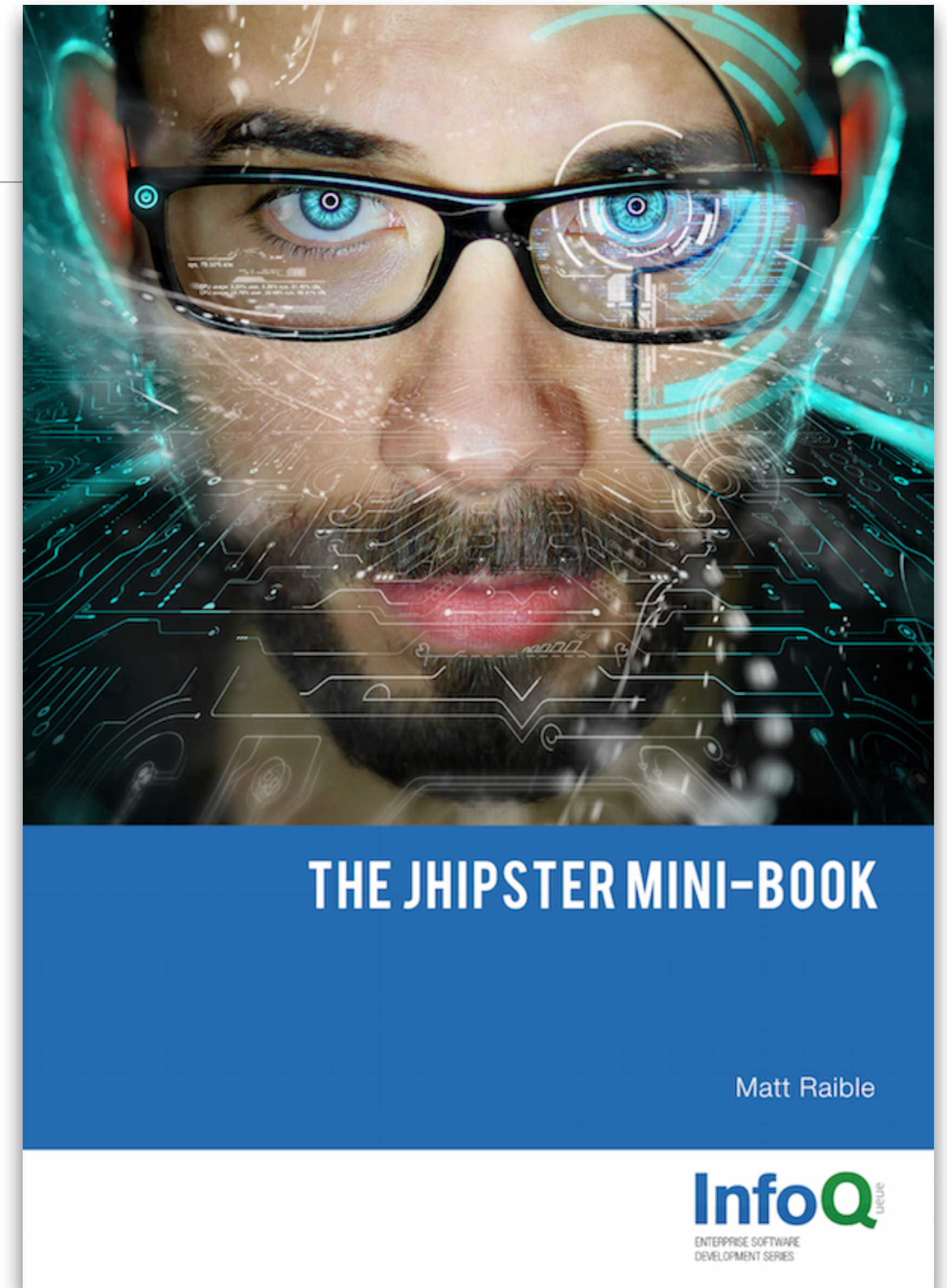
Quick and to the point, 130 pages

Developed a Real World App:

[www.21-points.com](http://www.21-points.com)

Free Download from **InfoQ**

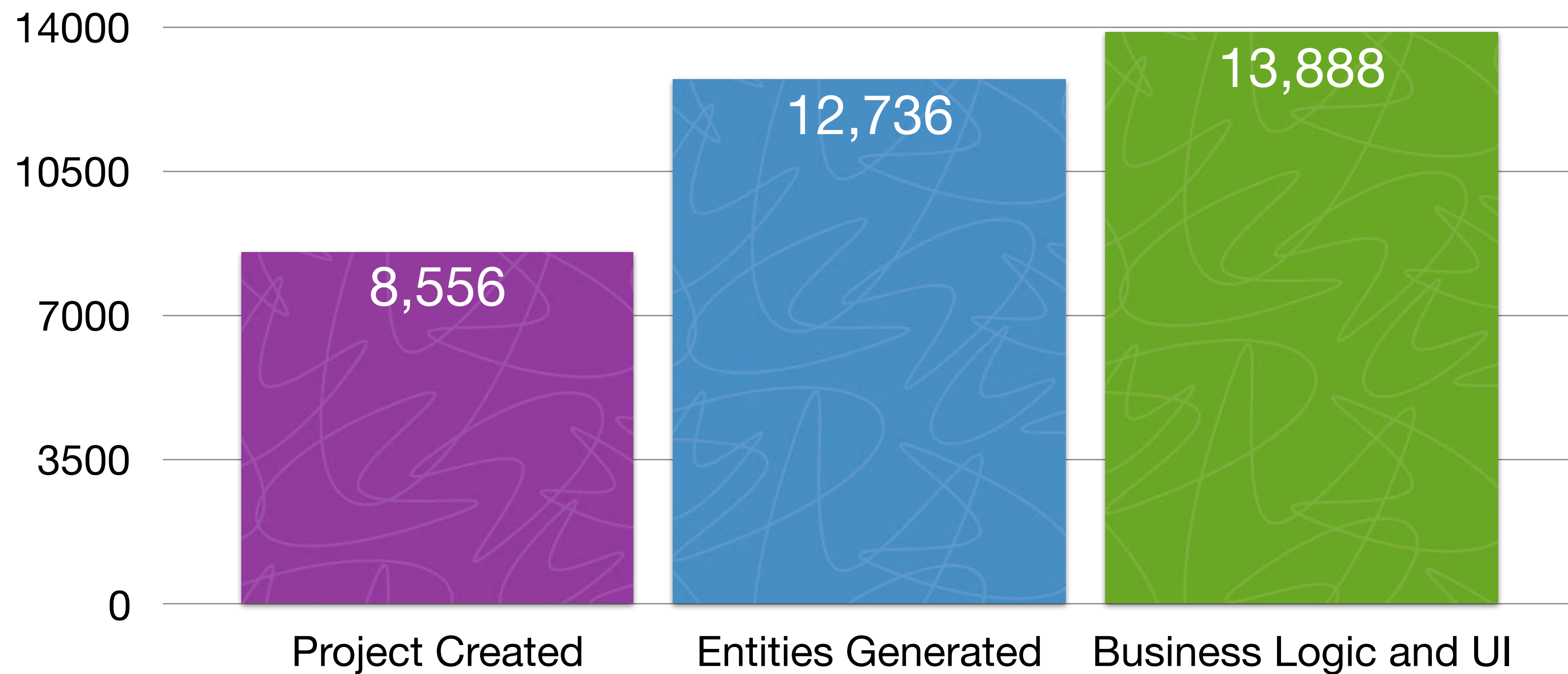
<http://www.infoq.com/minibooks/jhipster-mini-book>





# Lines of Code in 21-Points

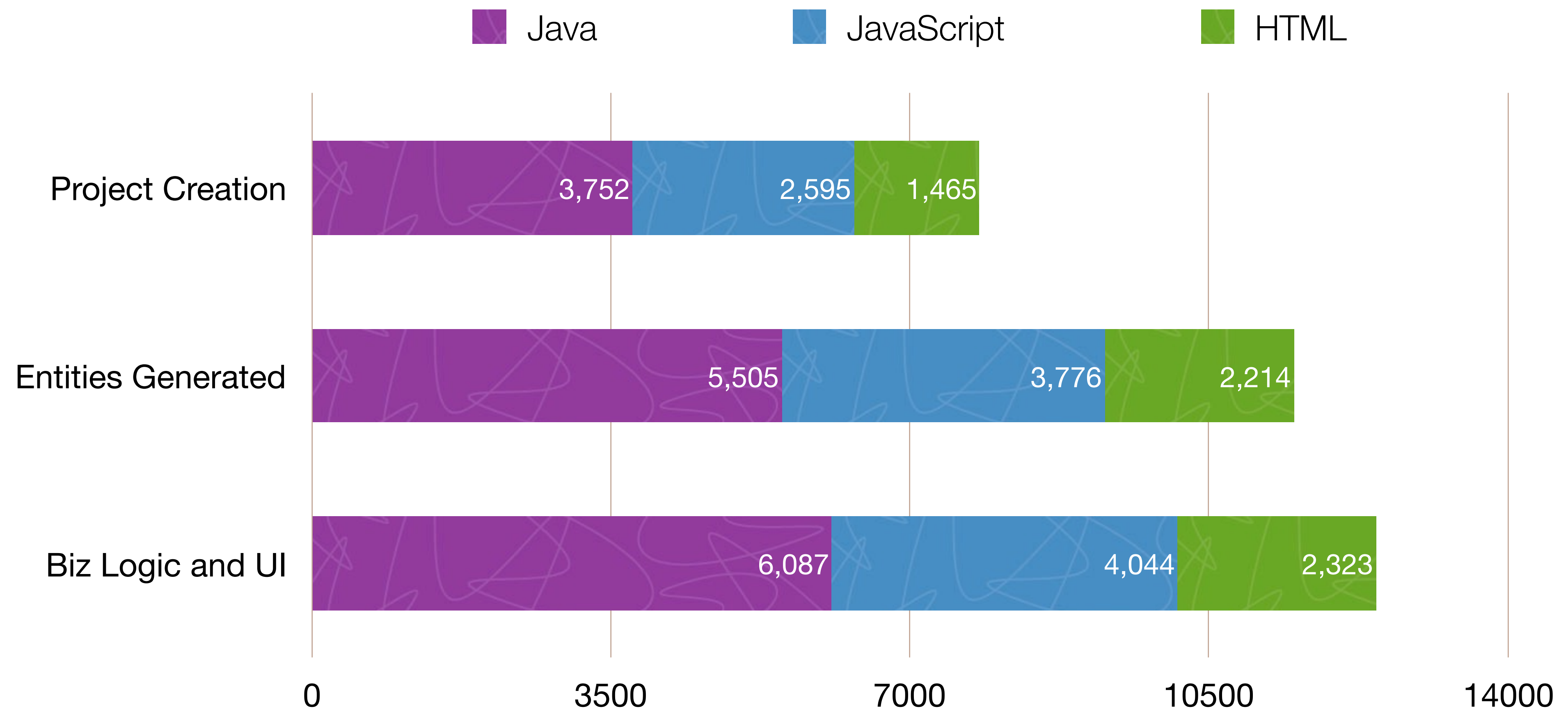
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# Lines of Code by Language

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# Learn More

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 [https://twitter.com/java\\_hipster](https://twitter.com/java_hipster)

 <http://jhipster.github.io/>

 <https://github.com/jhipster/generator-jhipster>

 <https://www.youtube.com/watch?v=R3jm2qmqctl>

 <https://angularjs.org>



# The JHipster Mini-Book

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1.0 Release on October 30



<http://jhipster-book.com>



<http://21-points.com>



[@jhipster\\_book](https://twitter.com/jhipster_book)





# Questions?

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Stay hip by following me!

 <http://raibledesigns.com>

 [@mraible](#)

Presentations

 <http://slideshare.net/mraible>

Code

 <http://github.com/mraible>

