



JHipster overview

@juliendubois

Julien Dubois

JHipster creator & lead developer

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[@juliendubois](https://twitter.com/juliendubois)
[@java_hipster](https://twitter.com/java_hipster)

A few words on Ippon Technologies...

- Funded in 2002
- + 270 consultants
- Specialized in Java, Cloud & Big Data
- Focus on innovation and technical expertise
- Offices in France, USA, Australia



What JHipster does

- Creates a full-stack application in record time
 - Generates a Spring Boot back-end
 - Generates an Angular front-end
 - Configures tooling
- Provides best-practices and high-quality code
- Shortens time-to-market and increases productivity
- Brings developer happiness
- 100% Open Source - no tricks!



Some statistics on JHipster

Oct 20, 2013 – Aug 23, 2017

Contributions: Commits ▾

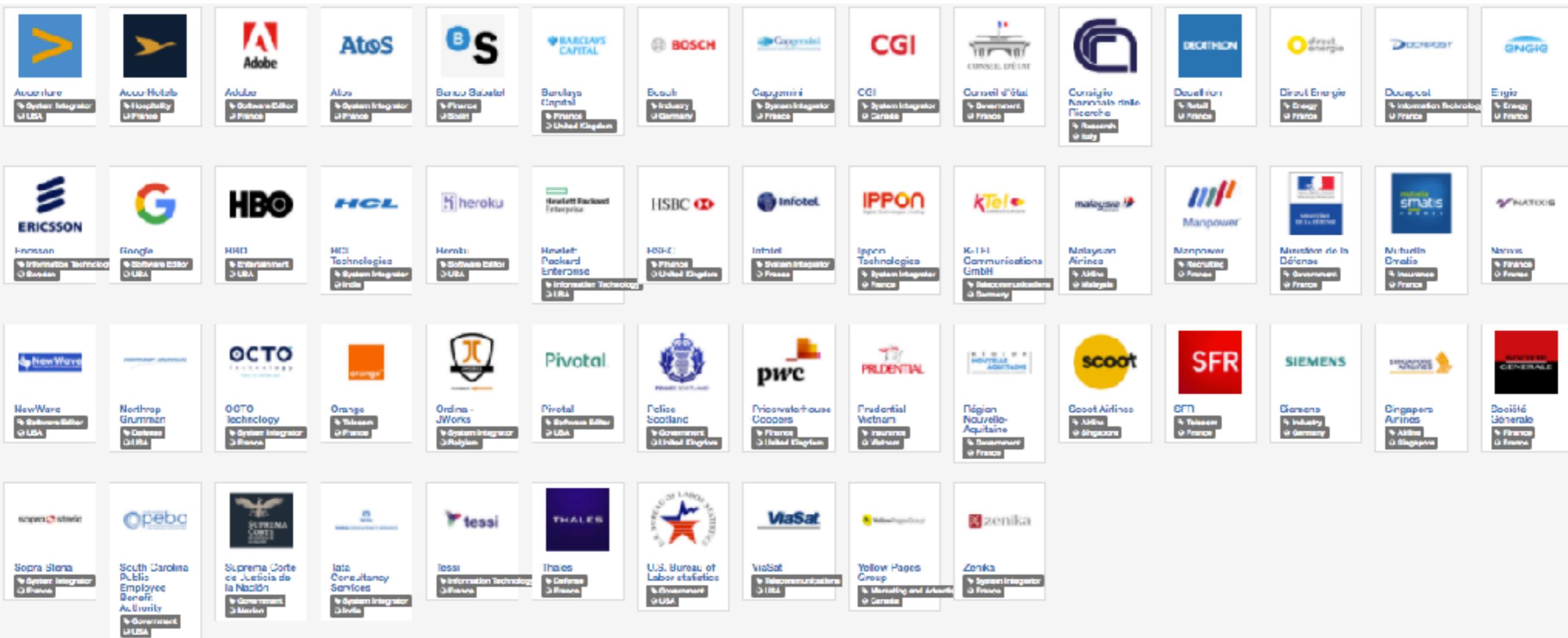
Contributions to master, excluding merge commits



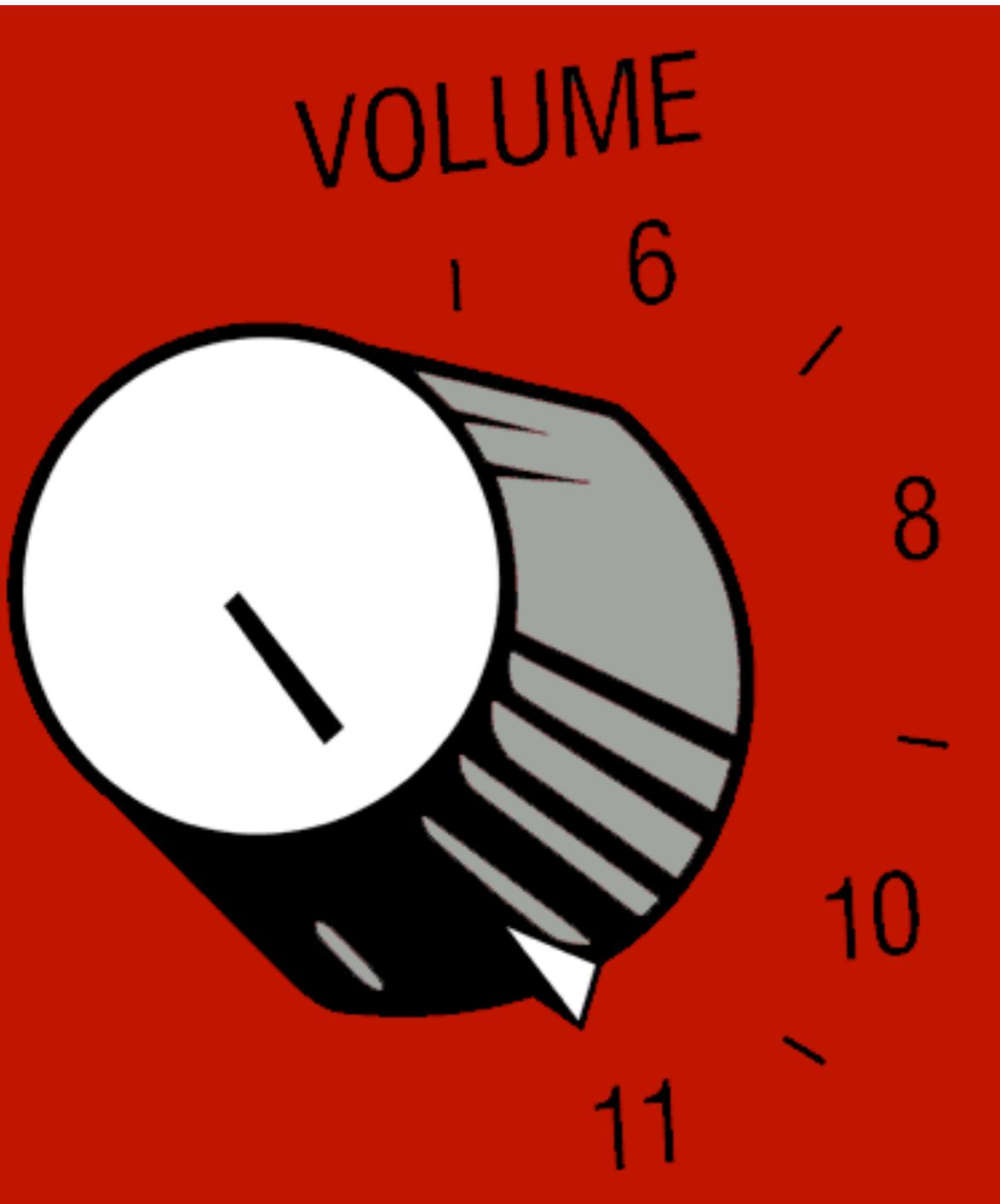
- 19 developers in the « core » team
- 355 contributors, including official contributions from Google, Red Hat and Salesforce
- 7,900+ GitHub stars
- 700,000+ downloads
- conferences all around the world

Companies love JHipster

- 200+ companies officially listed on <http://www.jhipster.tech/companies-using-jhipster/>
- All industries, all countries
- Many companies contribute back to the project



Key productivity gains



- Several independent studies show a 6-week gain at project startup
- Faster project turn-around with hot reload of Java + TypeScript code
- High-quality code and modular design allow projects to grow painlessly
- Ready for production out-the-box

Technology stack



Front-end

- HTML5 Boilerplate
- Twitter Bootstrap
- Angular / AngularJS
- Responsive Web Design
- Websockets
- Angular Translate



Back-end

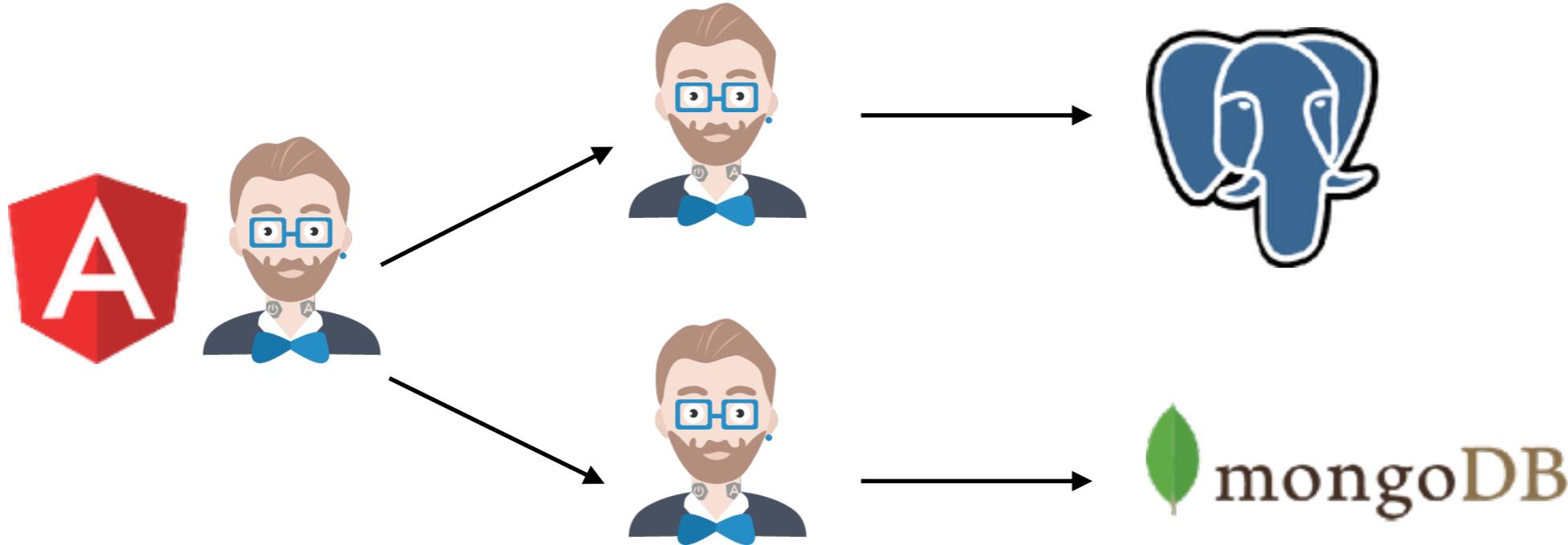
- Spring Boot
- Spring Security
- JPA, MongoDB, Cassandra
- Elasticsearch
- Ehcache, HazelCast
- Metrics



Tooling

- Maven, Gradle
- Webpack, BrowserSync
- JUnit, Gatling, Karma, Protractor
- Docker, Docker Compose, Cloud Foundry, Heroku, AWS, Kubernetes

Microservices architecture



- For advanced users, JHipster also generates full microservices architectures
- API gateway(s), service registry and discovery, security, monitoring... Everything is ready to go in a few minutes
- And always with the same great developer experience!



JHipster new features & roadmap

@juliendubois

NEW: JHipster Online

Application generation

Application options

Which type of application would you like to create?

Monolithic application (recommended for simple projects)

GitHub organization

jdubols

Application name

jhipsterSampleApplication

Server side options

What is your default Java package name?

io.github.jhipster.application

On which port would you like your server to run? It should be unique to avoid port conflicts.

8080

Do you want to use the JHipster Registry to configure, monitor and scale your application?

No

Which type of authentication would you like to use?

JWT authentication (stateless, with a token)

Which type of database would you like to use?

- Now available on <https://start.jhipster.tech/>
- No more JHipster installation needed
- Generates applications online
 - On your GitHub account
 - As a zip file
- Will soon add JHipster Studio integration!

NEW: Angular 4



- Angular 4 is out of beta
- It is now our default option
- Huge work on Webpack
- Bootstrap 4 is not enough for most people

NEW: JHipster Registry v3

The screenshot shows the 'Configuration' section of the JHipster Registry UI. At the top, there are tabs for 'YAML', 'Properties', 'JSON', and 'Table'. The 'YAML' tab is selected. The configuration code is as follows:

```
configserver:
  name: JHipster Registry config server
  status: Connected to the JHipster Registry config server!
jhipster:
  security:
    authentication:
      jwt:
        secret: my-secret-tokens-to-change-in-production
```

The screenshot shows the 'Application Metrics' section of the JHipster Registry UI. It includes sections for 'JVM Metrics' and 'HTTP requests (events per second)'. The 'JVM Metrics' section displays memory usage (Total Memory: 589M / 3,812M), threads (Total: 691, Runnable: 14), and garbage collection statistics (Mark Sweep count: 3, Mark Sweep time: 872ms, Scavenge count: 13, Scavenge time: 268ms). The 'HTTP requests' section shows active requests (1) and total requests (16), categorized by status code (OK, Not Found, Server error) with their respective counts, means, and average times.

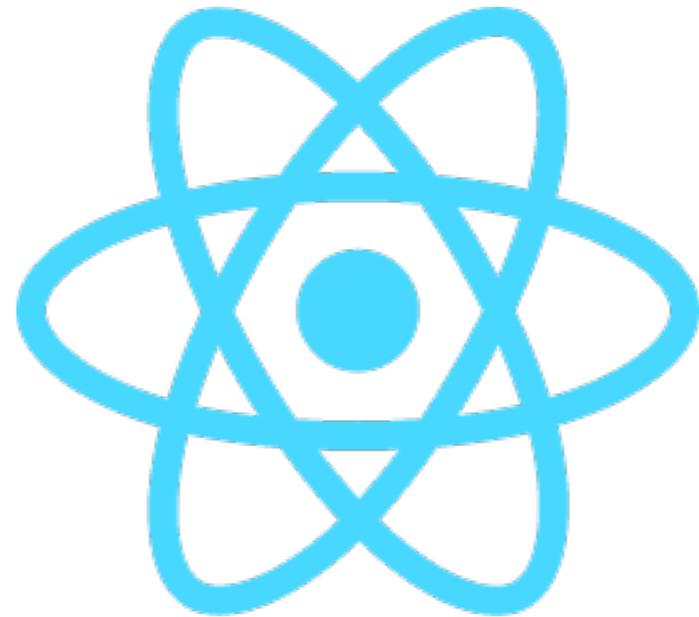
- JHipster Registry 3
- Monitors and scales microservices & monoliths
- New “admin” screens
- Live UI updates
- Encryption support
- Greatly improves and simplifies monoliths

Spring Boot 2 support



- Spring Boot 2.0
 - Branch is already started, see ticket
<https://github.com/jhipster/generator-jhipster/pull/6274>
- Spring Webflux
 - Full performance tests finished, results at
<http://blog.ippon.tech/spring-5-webflux-performance-tests/>
 - Will be an option when generating entities

React support



- React support
 - See <https://github.com/jhipster/generator-jhipster/issues/6044>
 - Most design decisions are already OK
 - A lot of work has already been done
 - Will work on it on Monday thanks to a (secret) client
- If you want to discuss the React license, let's do it after the talk

Webpack improvements



- Our Webpack supports is great
 - In “dev” mode, hot reload works fine
 - In “prod” mode, we have good performance and it’s very stable
- But help is needed to improve it
 - I am convinced we can have something much better
 - We also need a common Webpack configuration for Angular and React

Deployment



- Separate front-end/back-end
 - Long-running question
 - Hard to find the “perfect” solution
 - Documentation and tutorials will be added
- Fully support Google App Engine
 - Should be a first-class citizen
- Red Hat Keycloak support
 - Much more advanced than our current OAuth2 or UAA support
 - Already implemented several times, but hard to automate everything

Gradle support



- Our current implementation has been audited by the Gradle team: we can do better!
 - See <https://github.com/jhipster/generator-jhipster/issues/6252>
- Work has started on a specific JHipster Gradle plugin
 - Should improve greatly the developer experience
 - Join the fun at
<https://github.com/hipster-labs/jhipster-gradle-plugin>

And much more...



- **Full application(s) generation with the JDL**
- **New JHipster Console**
- **Red Hat OpenShift**
- **Infinispan clustering**
- **Couchbase**
- ...

Influence & help the roadmap



- Most features are community-driven
- Individuals working on their free time on something they love
- Companies paying people to improve a feature they need



**New focus:
“creating
great full-
stack
developer
experience”**

Where to go next?

- Official website
 - <http://www.jhipster.tech/>
- JDL Studio: online & free graphical editor for JHipster projects
 - <http://www.jhipster.tech/jdl-studio/>
- JHipster Marketplace: specialized modules, free for everyone to use
 - <http://www.jhipster.tech/modules/marketplace>
- JHipster Meetups and conferences
 - News section at <http://www.jhipster.tech/>

More information on JHipster

Website: <http://www.jhipster.tech/>

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

Twitter: @java_hipster