



Erwin de Gier

The Ultimate Java Microframework shootout



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edegier.nl



EJB 3



JDBC



JUnit

Struts²



maven



Micro defined

✓ Small footprint?

✓ Lightweight?

✓ Small runtime?

✓ Fast?

Micro defined

- ✓ Easy to start
- ✓ Well documented
- ✓ No Legacy
- ✓ All in one

Microservice REST API

✓ REST server/client

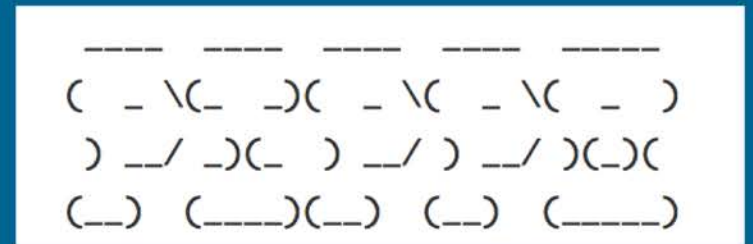
✓ Persistency

✓ Runnable JAR

✓ JSON Mapping



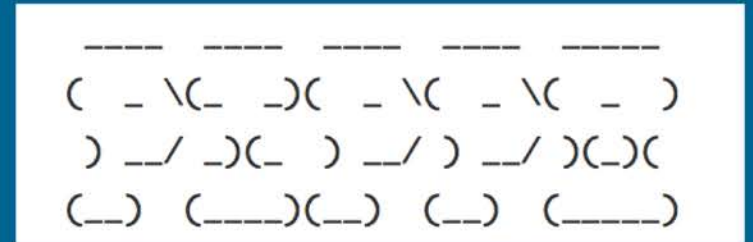
Dropwizard



A toolkit for JVM web applications

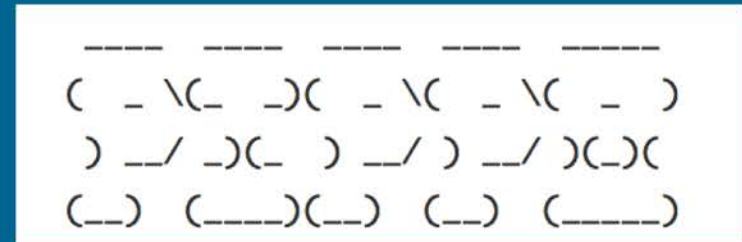


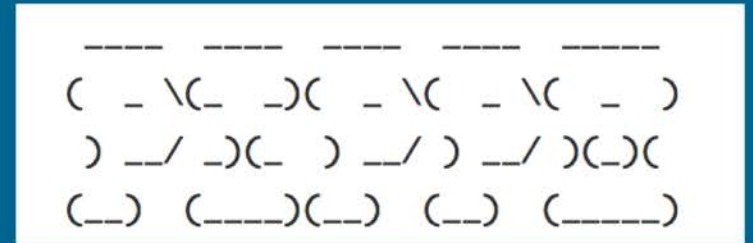
Dropwizard





Dropwizard



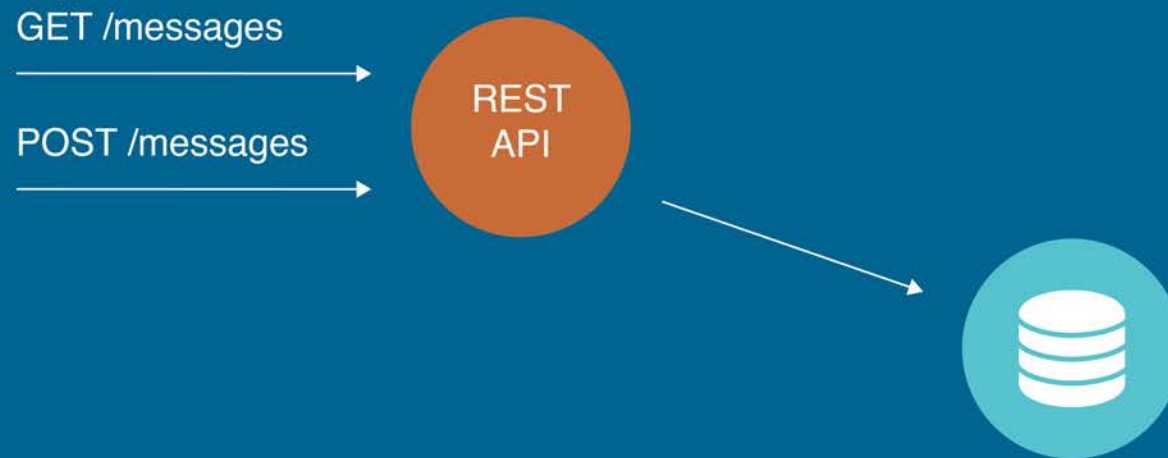


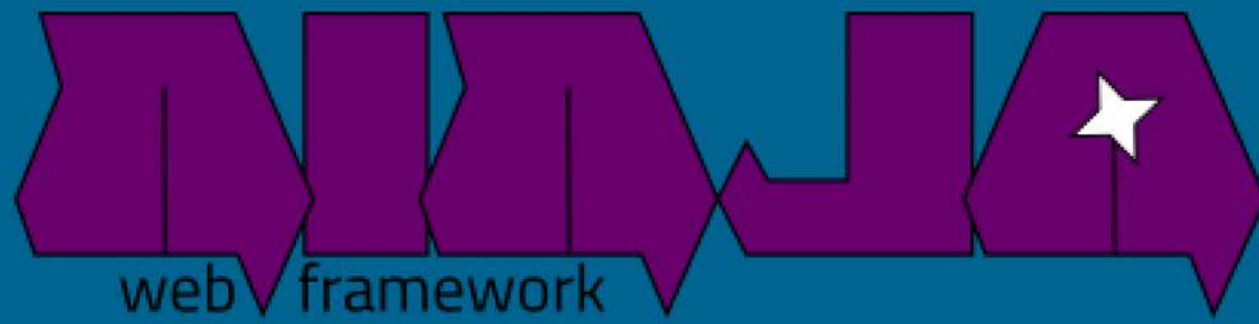


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	Ninja	Jooby	Pippo
REST	Java routes	Java DSL (of Annotaties)	Java DSL
HTTP(S)	Jetty	Jetty, Netty, Undertow, Servlets	Jetty, Servlets
JSON	Jackson	Jackson, GSON	Jackson, GSON, Fastjson
Caching	Ehcache, Memcached	Ehcache, Memcached, Redis, Hazelcast, Guava cache	-
Templating / HTML	Freemarker	Freemarker, Handlebars, Jade, Pebble	Freemarker, Jade, Pebble, Groovy
Security	-	Pac4j	- (CSRF filter inclusief)
Database / ORM	JPA	Hibernate, JOOQ, Rxjdbc, etc	-
Database / NoSql	-	Cassandra, Mongo, Couchbase	-
Validatie	Bean Validation	Bean Validation	Bean Validation
Metrics	Dropwizard Metrics	Dropwizard Metrics	Dropwizard Metrics
Configuratie	Java props	Typesafe config file	Java props
Build	Maven	Maven	Maven
DI	Guice	Guice	Guice, Spring, Weld
Fat JAR (hello world app)	26 MB	8,5 MB	3 MB

Architecture





```
~/Workspaces/microframeworks-demo  
~/Workspaces/microframeworks-demo  
let-archetype-simple
```

```
mvn archetype:generate -DarchetypeGroupId=org.ninjaframework -DarchetypeArtifactId=ninja-serv
```

```
}
```

Ninja

- ✓ **Opinionated**
- ✓ **Full stack**
- ✓ **Not so micro in size**

j∞by


```
~/Workspaces/microframeworks-demo  
~/Workspaces/microframeworks-demo
```

```
}
```

Jooby

- ✓ **Un-opinionated**
- ✓ **Modules**
- ✓ **Really tiny or full stack**

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```
~/Workspaces/microframeworks-demo  
~/Workspaces/microframeworks-demo  
archetypeVersion=1.5.0
```

```
mvn archetype:generate -DarchetypeGroupId=ro.pippo -DarchetypeArtifactId=pippo-quickstart -Da
```

```
}
```

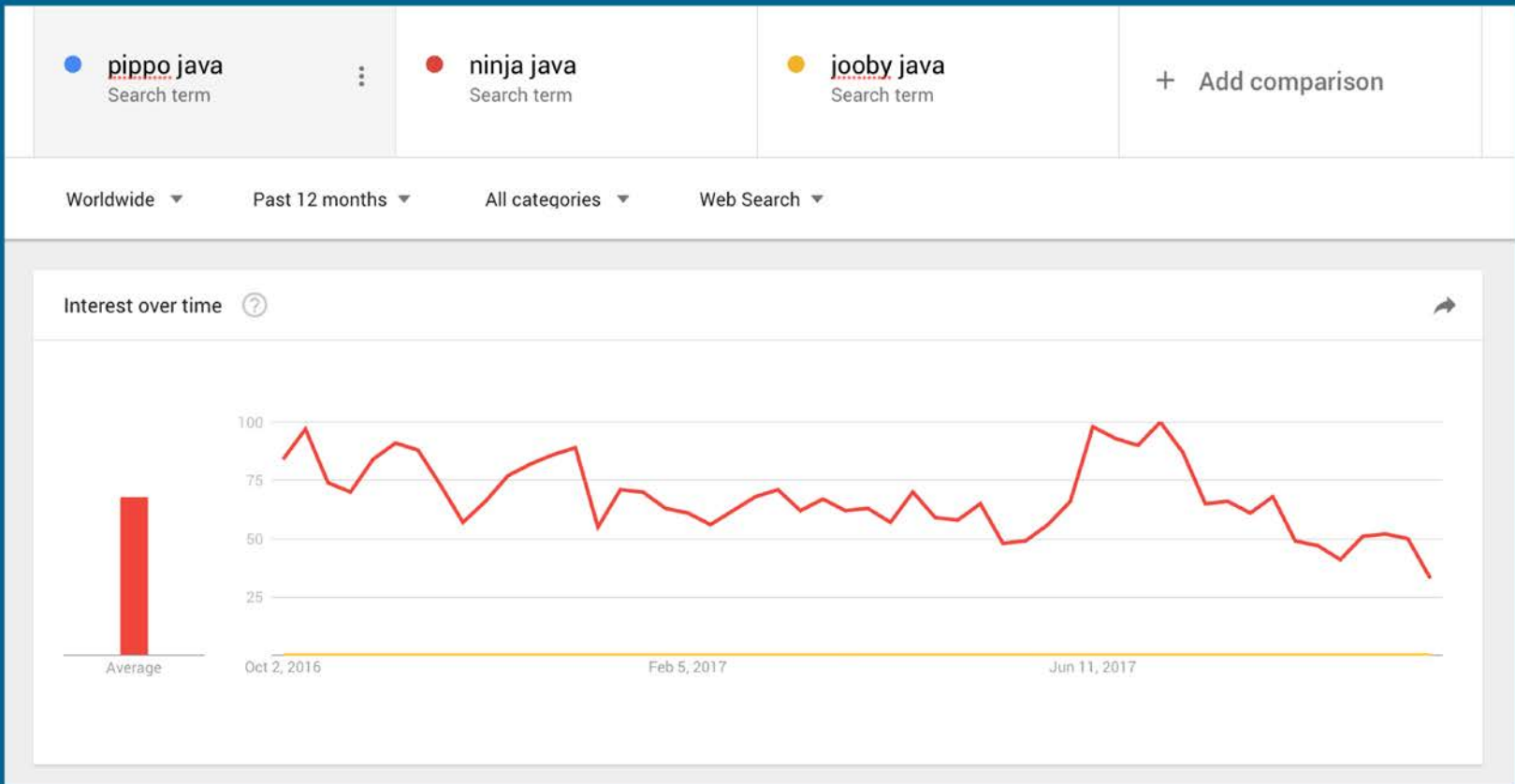
Pippo

- ✓ Customizable
- ✓ Multiple paradigms (controllers, init)
- ✓ Not extremely userfriendly

Community

	Ninja	Jooby	Pippo
GitHub stars	1733	593	624
Commits	1957	1302	1221
Issues / closed	90/161	64/674	10/157
Release date	August 2012	April 2015	Oktober 2014
Contributers	61	29	16
Jar size	26 MB	8,5 MB	3 MB

Popularity



Conclusion

- ✓ **Ninja: All-in-one solution**
- ✓ **Jooby: Full stack, customizable**
- ✓ **Pippo: Micro, customizable**

Microframeworks sweet spot

- ✓ REST API DSL's
- ✓ Little functionality
- ✓ No into the Java platform
- ✓ Easy entry level
- ✓ Or (Pippo) a lot of control