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THE DEVELOPER'S CONFERENCE

“Micronaut”

Trilha – Arquitetura Java

Marcelo Adamatti

<https://adamatti.github.io>



M I C R O N A U T



<https://adamatti.github.io>



Microservices

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2003

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GRAILS

2005/2006

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M I C R O N A U T

Why Micronaut?



- Designed for microservices and serverless
- Fast Startup time
- Low memory
- “Small jar”
- Zero Dependencies
- 12 factors
- Ahead of time (AOT) compilation (e.g. CDI)

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Jar Sizes



- Java: 8 mb
- Groovy: 12 mb
- Spring + Groovy: 36 mb
- Grails: 27 mb

Heap Size



- Java: 7 mb
- Groovy: 19 mb
- Spring + Groovy: 33 mb
- Grails: 49 mb

Startup Time



- ~1 second
- Spring / Grails: ~3-4 seconds



Brandon Lamb

@brandonlamb1

Follow



Confirmed, #micronautfw hello world runs with -Xmx10m, visualvm reports ~6-7m used heap and returns a `Single<HttpResponse<String>>`

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GraalVM™

14 ms

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"Glória a Deuxxx."

Daciolo, Cabo.

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References



- <http://micronaut.io>
- Micronaut Announcement: https://www.youtube.com/watch?v=56j_f3OCg6E
- <https://www.technipelago.se/blog/show/The-road-to-Micronaut>
- AWS Lambda with Micronaut and without any framework - billing in serverless architecture
<https://github.com/asc-lab/aws-lambda-billing>
- <https://www.slideshare.net/alvarosanchezmariscal/conoce-micronaut-un-framework-para-microservicios-jvm-commit-conf-2018>

<https://adamatti.github.io>

Backup



Ctrl

ProductClient.java

```
import io.micronaut.configuration.kafka.annotation.*;

@KafkaClient 1
public interface ProductClient {

    @Topic("my-products") 2
    void sendProduct(@KafkaKey String brand, String name); 3
}
```

ProductListener.java

```
import io.micronaut.configuration.kafka.annotation.*;

@KafkaListener(offsetReset = OffsetReset.EARLIEST) ❶
public class ProductListener {

    @Topic("my-products") ❷
    public void receive(@KafkaKey String brand, String name) { ❸
        System.out.println("Got Product - " + name + " by " + brand);
    }
}
```