

THE DEVELOPER'S CONFERENCE

ArchUnit: testando a arquitetura de sua aplicação Java

Fábio Domingues

Software Architect / Build Engineer @ Softplan

Sobre mim



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Fábio Domingues

- Arquiteto de Software @ Softplan
- Desenvolvedor de Software desde 2009
- Bacharel em Engenharia da Computação
- Apaixonado por Sistemas Distribuídos
- Admirador de boas práticas de arquitetura e design de código.

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Agenda



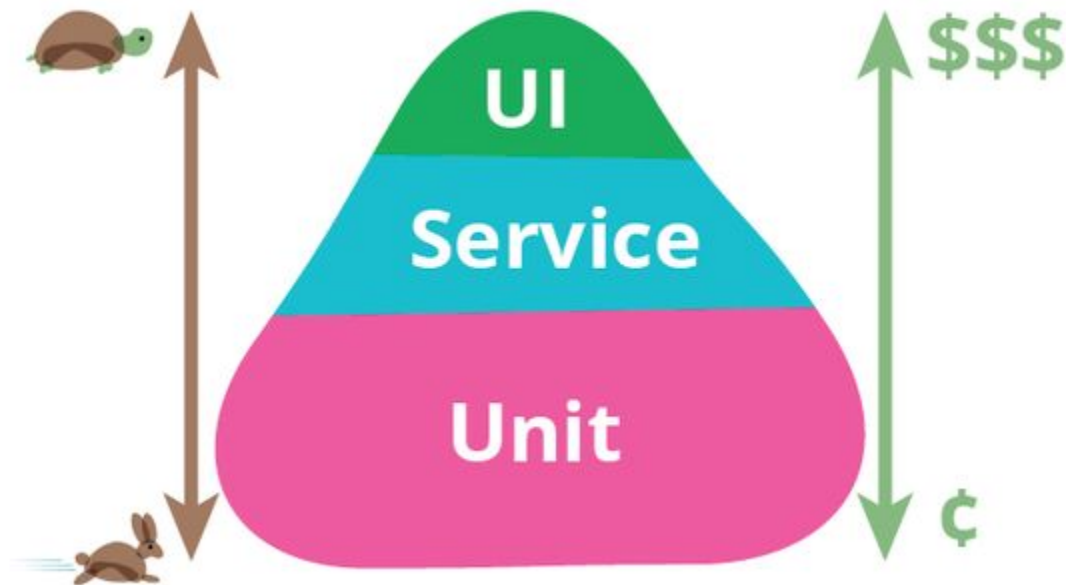
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- Reflexão sobre testes
- Motivação
- ArchUnit
- Exemplo

Qual tipo de testes você faz?



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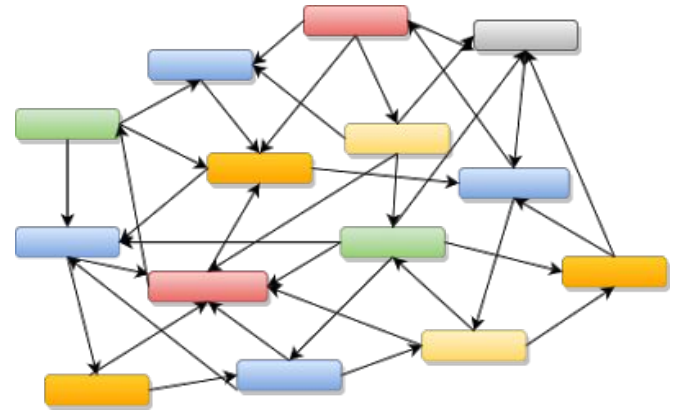
E a arquitetura?

Aspectos afetados



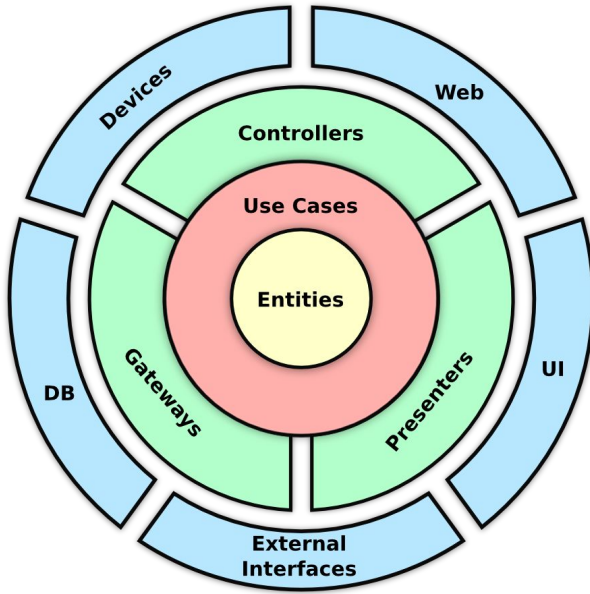
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- Manutenibilidade
- Extensibilidade
- Reusabilidade
- Onboarding
-

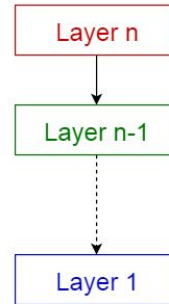
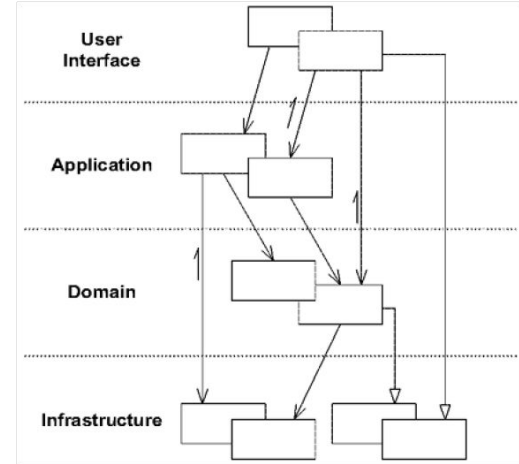




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- Enterprise Business Rules
- Application Business Rules
- Interface Adapters
- Frameworks & Drivers



Usando



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- `System.out....`
- `e.printStackTrace();`
- `Logger`

Decisões arquiteturais



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Como garantir que estão sendo seguidas ou que não estão sendo violadas?

- ADR (Architecture Decision Records)
- Revisão de código

Mas então, como garantir?



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Como garantir?



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Testes automatizados!



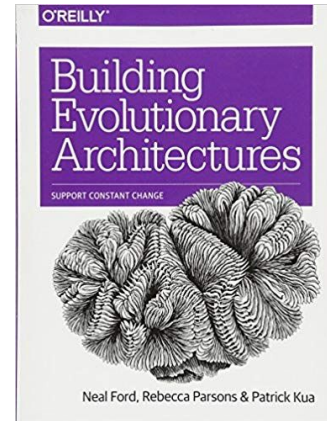
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- Documentação

“Good code is its own best documentation”, Steve McConnell

- Evolutionary architectures 

Fitness functions



- Continuous Integration

- Collective code ownership



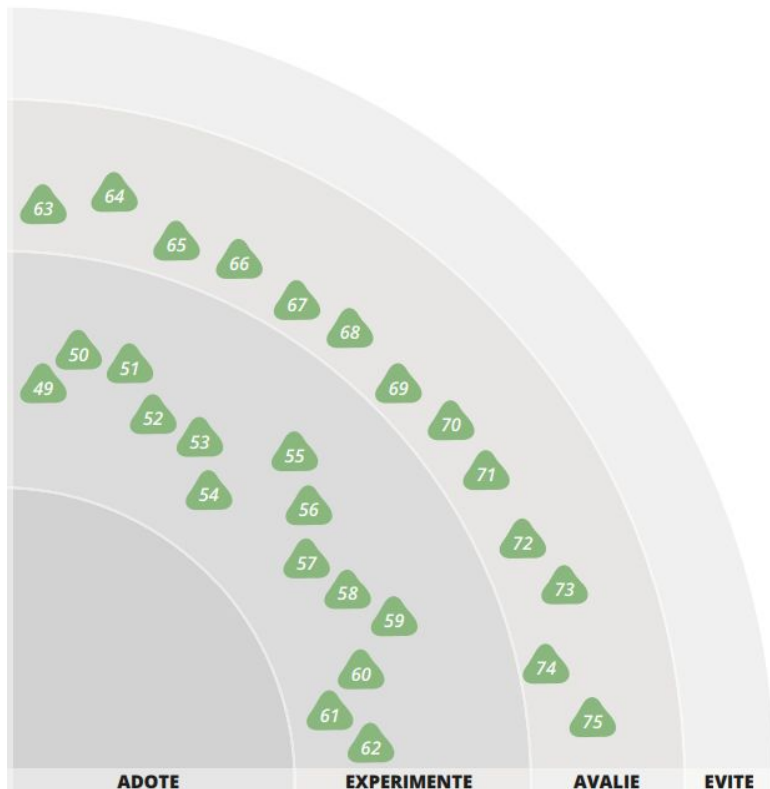
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ArchUnit

ThoughtWorks Radar 2019



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FERRAMENTAS

ADOTE

EXPERIMENTE

- 49. acs-engine *NOVO*
- 50. Archery *NOVO*
- 51. ArchUnit
- 52. Cypress
- 53. git-secrets *NOVO*
- 54. Headless Firefox
- 55. LocalStack *NOVO*
- 56. Mermaid *NOVO*
- 57. Prettier *NOVO*
- 58. Rider *NOVO*
- 59. Snyk *NOVO*
- 60. Ambientes de desenvolvimento de UI *NOVO*
- 61. Visual Studio Code
- 62. VS Live Share *NOVO*

AVALIE

- 63. Bitrise *NOVO*
- 64. Codefresh *NOVO*
- 65. Grafeas *NOVO*
- 66. Heptio Ark *NOVO*
- 67. Jaeger *NOVO*
- 68. kube-bench *NOVO*
- 69. Ocelot *NOVO*
- 70. Optimal Workshop *NOVO*
- 71. Stanford CoreNLP *NOVO*
- 72. Terragrunt *NOVO*
- 73. TestCafe *NOVO*
- 74. Traefik *NOVO*
- 75. Wallaby.js *NOVO*

EVITE

Mai/2018 - **AVALIE**
Nov/2018 - **EXPERIMENTE**



“ArchUnit is a free, simple and extensible library for checking the architecture of your Java code using any plain Java unit test framework.

That is, ArchUnit can check dependencies between packages and classes, layers and slices, check for cyclic dependencies and more. It does so by analyzing given Java bytecode, importing all classes into a Java code structure.”

ArchUnit Website (<https://www.archunit.org>)



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- Primeiro Release em 23/04/2017
- v0.10.2 (31/03/2019)



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Peter Gafert
codecholeric

TNG  **TECHNOLOGY
CONSULTING**

ArchUnit



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- Just plain Java
- Operates on Java bytecode
- Executable as simple unit test
- Fluent API in code
- Fully extensible



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EXEMPLO



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Obrigado!

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