

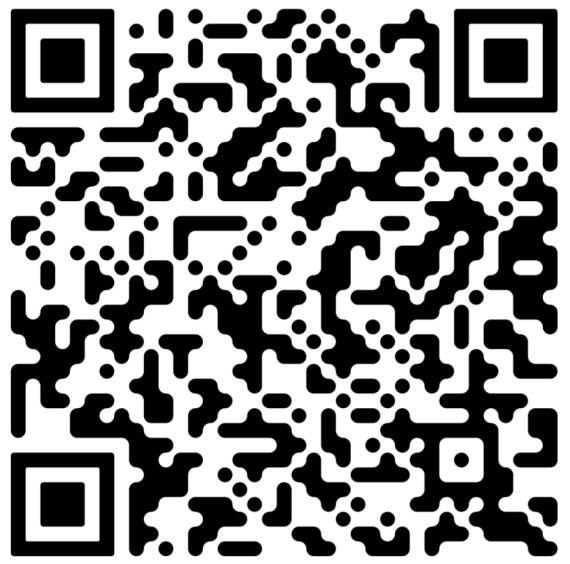


Você está perdendo  
dinheiro!

Matheus Hunsche

Da sala de reunião à vida real

Embarcadero Conference 2019



*Scan me*

74

# Matheus Hunsche

- Comitter do RAD Studio
- Fundador da HashLoad
- Site Reliability Engineering (SRE) do ifood

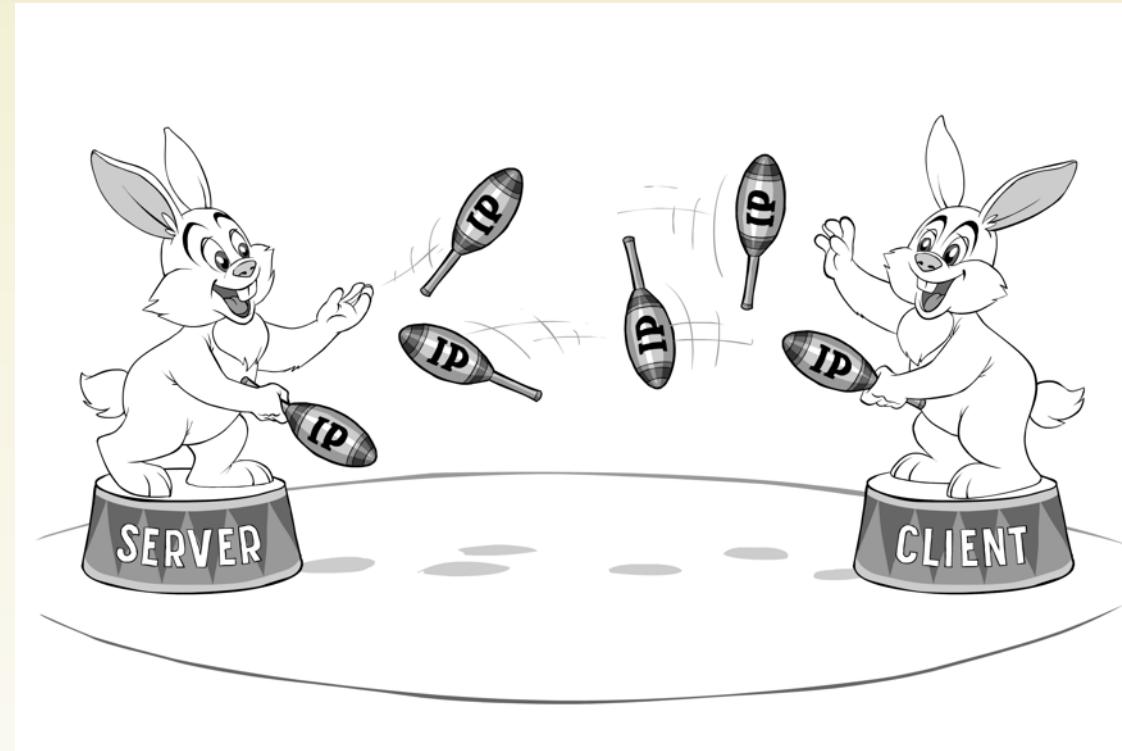


## Números do ifood

- Não é Gigabyte é Petabyte
- Mais de 83 mil requisições por minuto em horário de pico
- Já bateu 4 milhões de requisições por minuto
- Mais de 1000 máquinas EC2 na AWS



Isso é amador



Futebol amador também da dinheiro



YOU'RE UNDER ARREST FOR ASKING  
THE RIGHT QUESTION AT THE WRONG TIME !

Coloca mais gente



MAKE YOUR GIF AT [YOUREPEAT.COM](http://YOUREPEAT.COM)

# Motivo de piada



Motivo de piada

Pensamento ágil



Motivo de piada

Pensamento ágil

Boas práticas



Motivo de piada

Pensamento ágil

Boas práticas



Usa Datasnap,  
coisa foda, só tem uns 1000 anos

Motivo de piada

Pensamento ágil

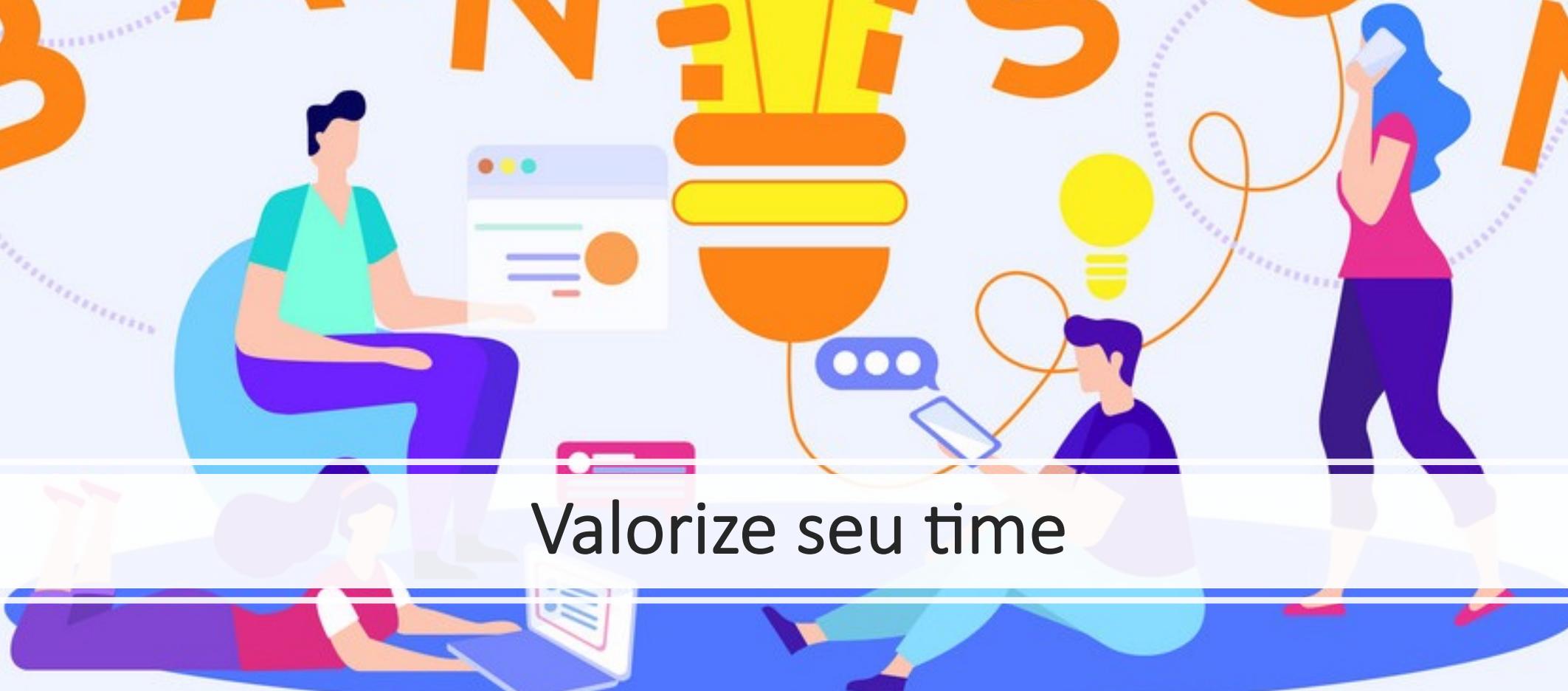
Boas práticas



**Usa Datasnap,  
coisa foda, só tem uns 1000 anos**

**Faz isso porque eu tenho  
Certificação master  
Pica T1000 que minha  
mãe me certificou**

# BRAINSTORM



Valorize seu time

Para de discutir coisa batida

**Linguagem de programação**

**ORM**

**Programação Orientada a Objetos**

**Design Patern**

**Banco de dados**

**NoSQL**

**Conexão com banco de dados**

**REST**

**JSON**



12280389 www.fotosearch.com

Ferramenta não pode te escravizar

## Para de criticar Java

Ferramenta não pode te escravizar

**Para de criticar Java**

**Para de defender Java**

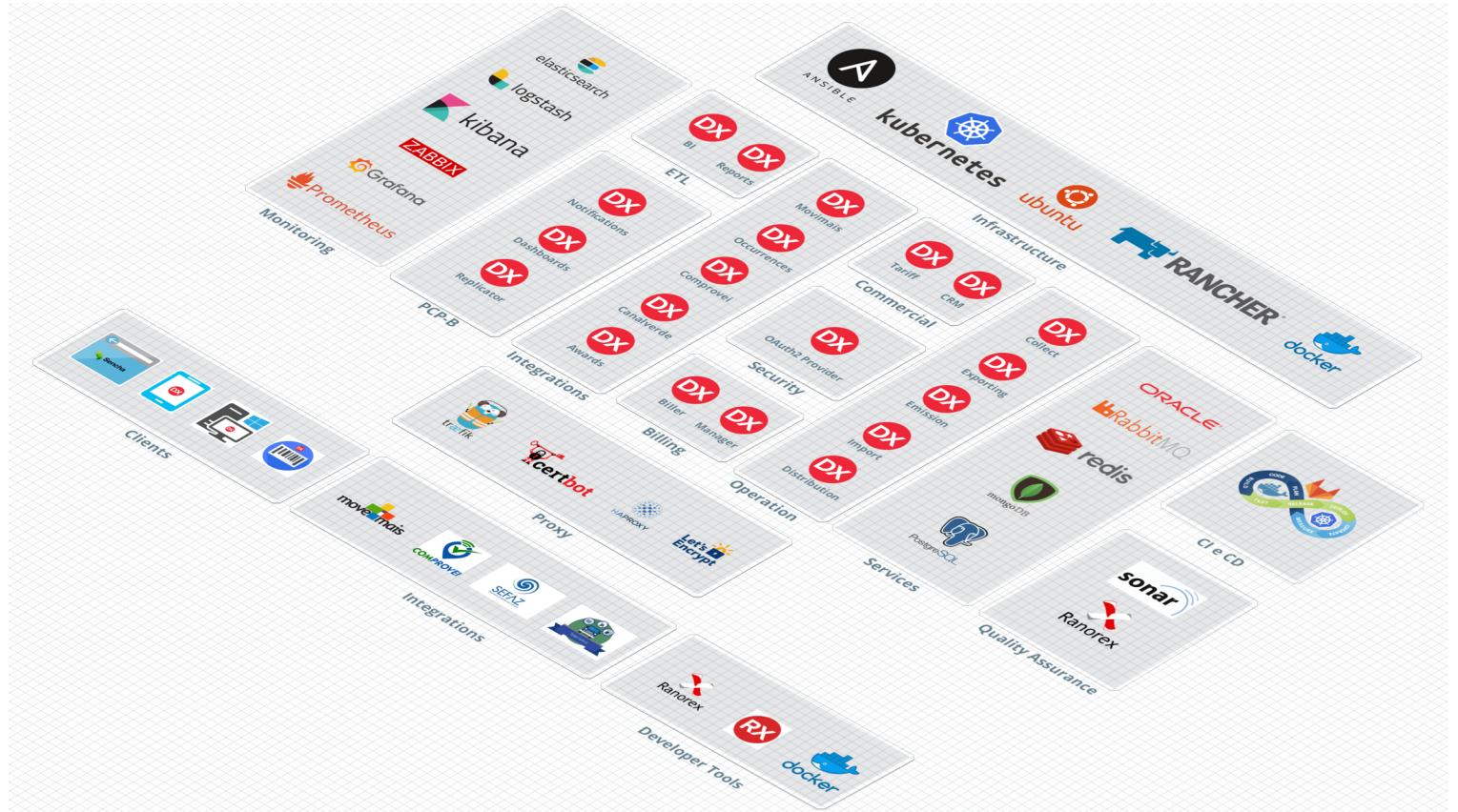
Ferramenta não pode te escravizar

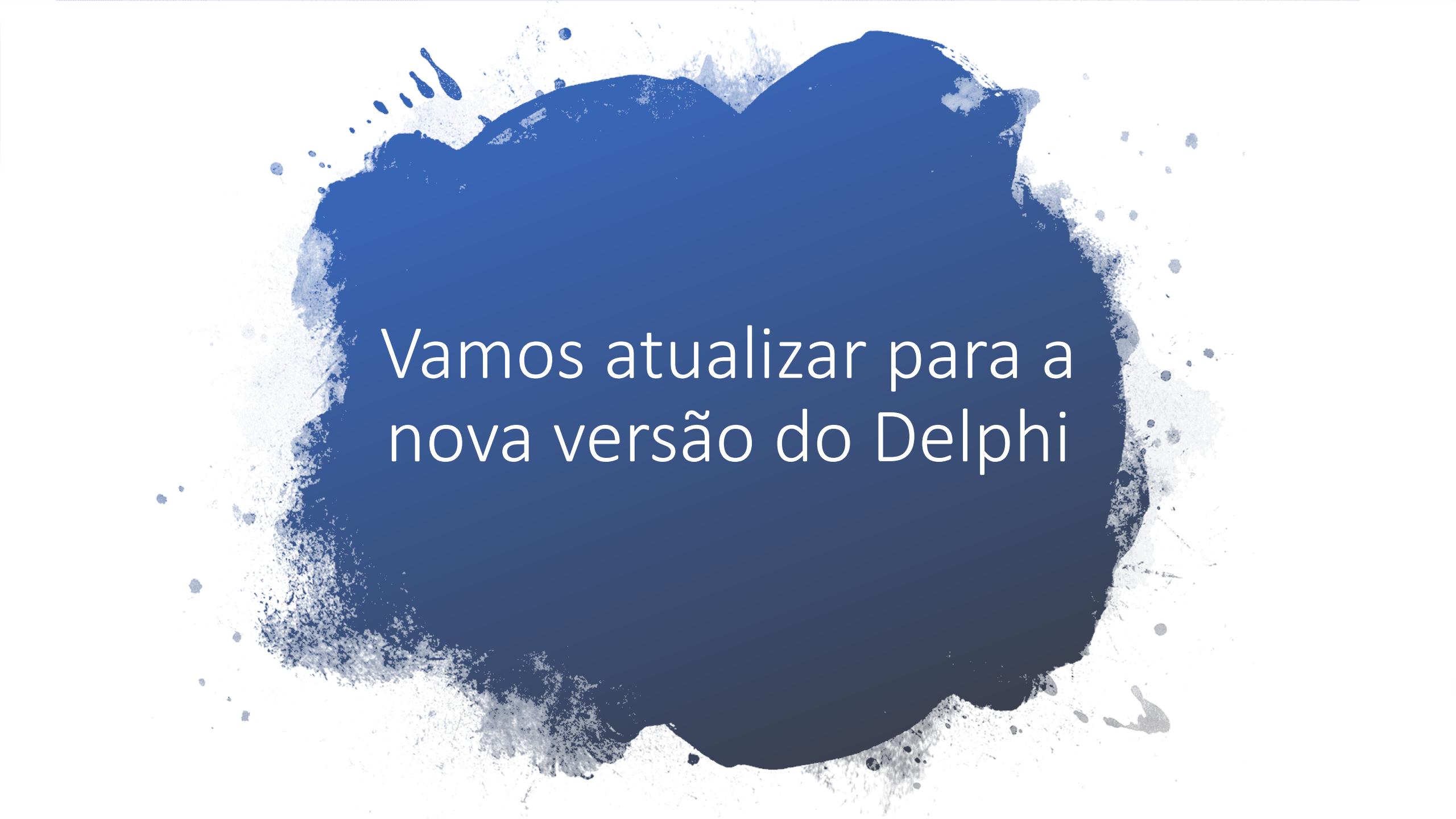
**Para de criticar Java**

**Para de defender Java**

**Para de defender Linguagem**

Vamos fazer  
mudanças,  
**GRANDES**  
MUDANÇAS



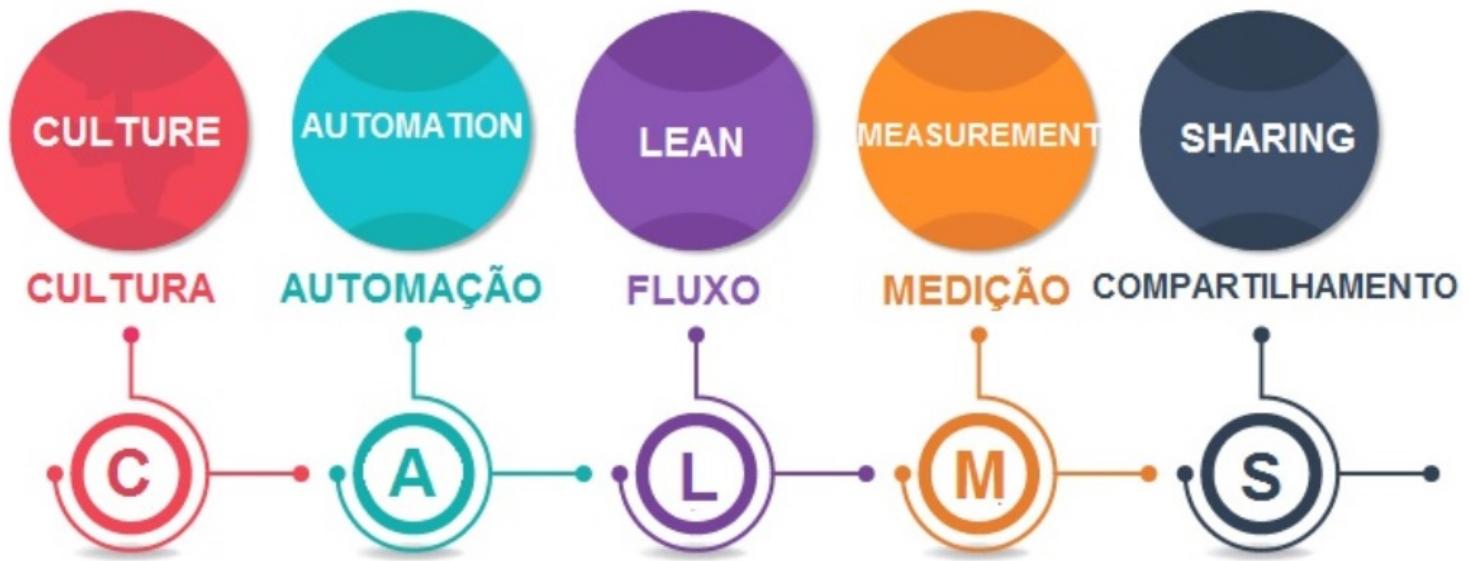


Vamos atualizar para a  
nova versão do Delphi



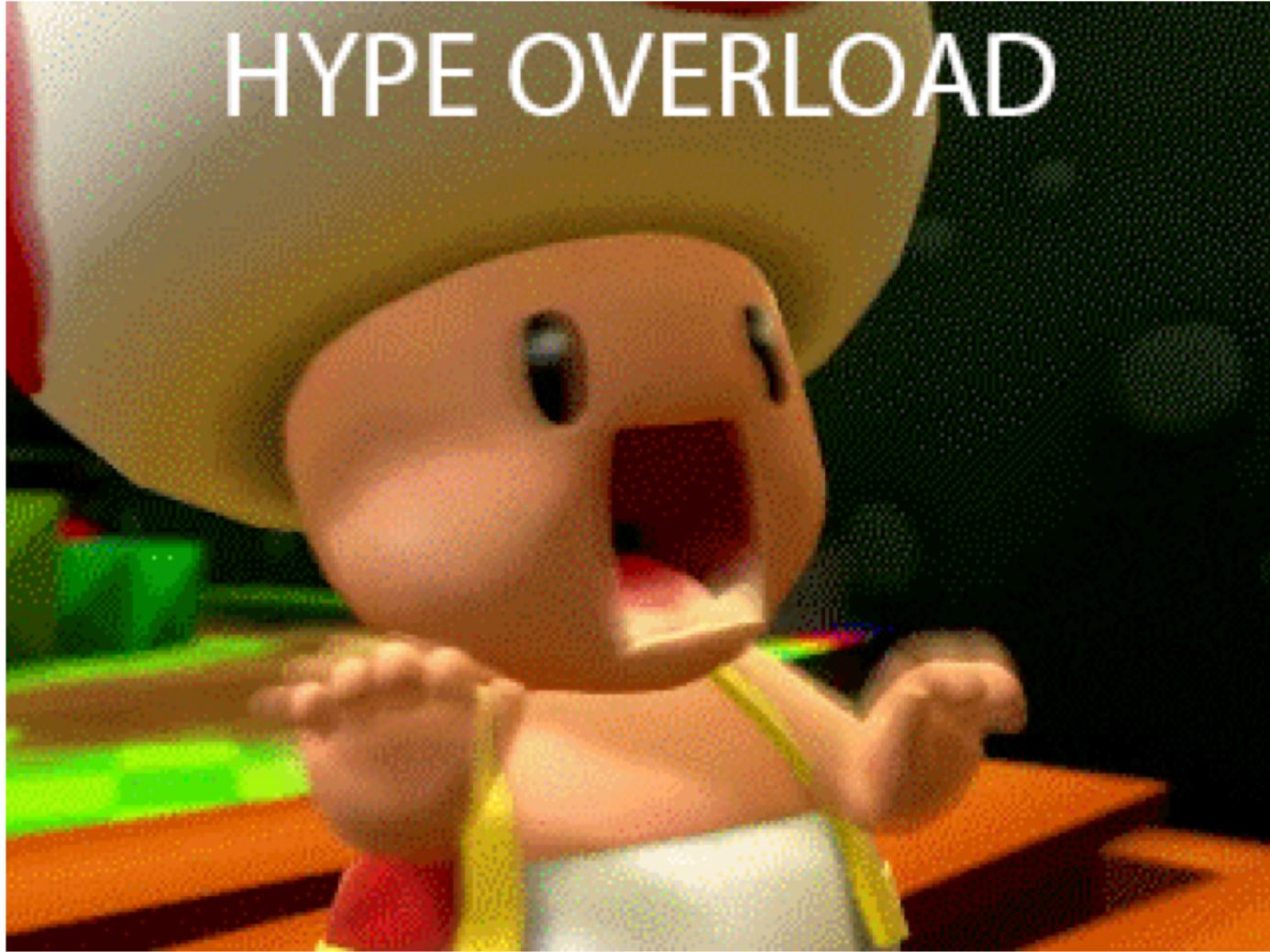
Grandes  
mudanças  
são feitas na  
cultura

## Pilares DevOps



HYPE

HYPE OVERLOAD





Over Engineering

Parem de  
usar coisas  
pagas, invista  
em pessoas



Parem de achar  
desculpas, faça  
o que ninguém  
fez, faça algo  
inovador, faça a  
cereja do bolo





MINIMUM **VIABLE** PRODUCT



MINIMUM **LOVEABLE** PRODUCT

# Os Doze Fatores

## I. Base de Código

Uma base de código com rastreamento utilizando controle de revisão, muitos deploys

## II. Dependências

Declare e isole as dependências

## III. Configurações

Armazene as configurações no ambiente

## IV. Serviços de Apoio

Abstraia os serviços de apoio

## V. Build, release, run

Separe estritamente os builds e execute em estágios

## VI. Processos

Execute a aplicação como um ou mais processos que não armazenam estado (Stateless)

<https://imasters.com.br/cloud/os-12-fatores-uma-metodologia-para-criacao-de-projetos-saas>

## VII. Vínculo de porta

Exporte serviços por ligação de porta (Auto contido)

## VIII. Concorrência

Dimensione por um modelo de processo (Threads, Fila)

## IX. Descartabilidade

Maximizar a robustez com inicialização e desligamento rápido (Descartável)

## X. Dev/prod semelhantes

Mantenha o desenvolvimento, teste, produção o mais semelhante possível

## XI. Logs

Trate logs como fluxo de eventos (pipelines)

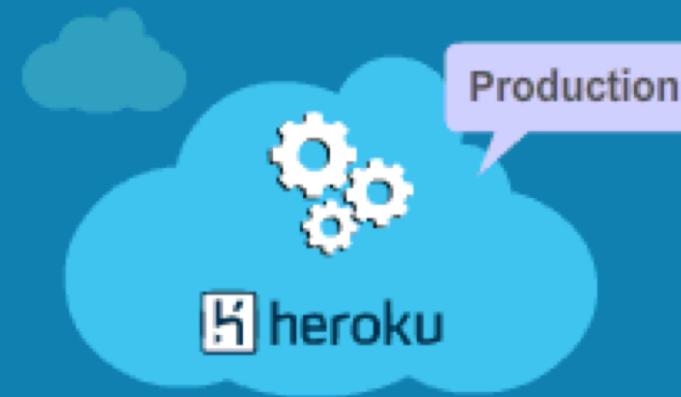
## XII. Processos de Admin

Tarefas administrativas devem ser tratadas de forma automatizada (Ninguém meche na cfg do banco na mão)

[https://12factor.net/pt\\_br/](https://12factor.net/pt_br/)

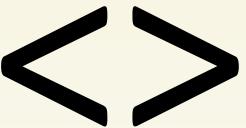
# Deploying Rails Application to Heroku

Development



**Salesforce.com Buys Heroku For \$212 Million In Cash**

Pode falhar



Deu problema? Joga fora e faz outro, recicla



**tchau, querida**



Crie fallbacks

# Desnormalizar dados é normal



Saber quando  
fazer cache,  
cache nem  
sempre é bom

---



# Elasticidade





A TOWER

admin

DASHBOARD

HOSTS: 3691 | FAILED HOSTS: 83 | INVENTORIES: 3 | INVENTORY SYNC FAILURES: 0 | PROJECTS: 3 | PROJECT SYNC FAILURES: 0

JOB STATUS

JOBS

TIME: 16:00 to 16:00 (PAST 24 HOURS)

JOBTYPE: ALL | VIEW: ALL

RECENTLY USED TEMPLATES

VIEW ALL

NAME	ACTIVITY	ACTIONS
Deployment pipeline		
Rollback deployment		
Deploy to development		
Test application		
Deploy database		

RECENT JOB RUNS

VIEW ALL

NAME	TIME
Deployment pipeline	1/23/2019 4:38:36 PM
Rollback deployment	1/23/2019 4:38:35 PM
Deploy to development	1/23/2019 4:38:19 PM
Test application	1/23/2019 4:38:18 PM
Deploy database	1/23/2019 4:38:05 PM



An execution plan has been generated and is shown below.  
Resource actions are indicated with the following symbols:

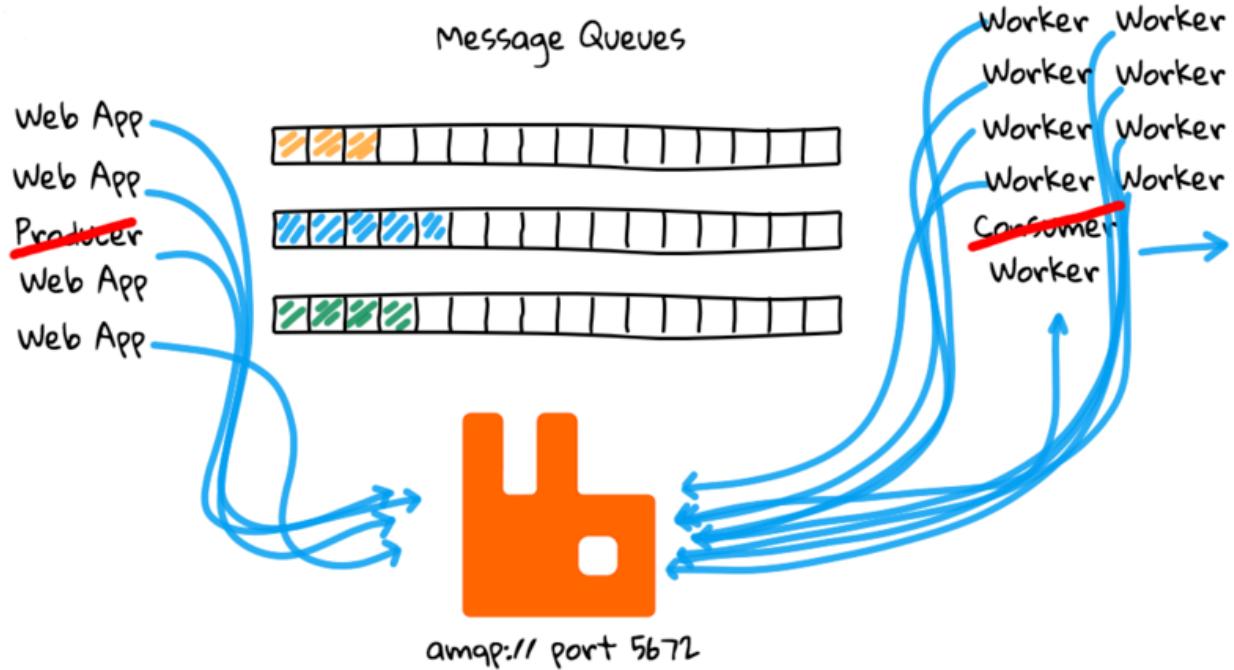
+ create

Terraform will perform the following actions:

```
+ aws_security_group_rule.rule2
  id:                      <computed>
  cidr_blocks.#:           "1"
  cidr_blocks.0:            "0.0.0.0/0"
  from_port:                "0"
  protocol:                 "-1"
  security_group_id:        "sg-34958b7f"
  self:                     "false"
  source_security_group_id: <computed>
  to_port:                  "0"
  type:                     "egress"
```

**Plan:** 1 to add, 0 to change, 0 to destroy.

# Filas



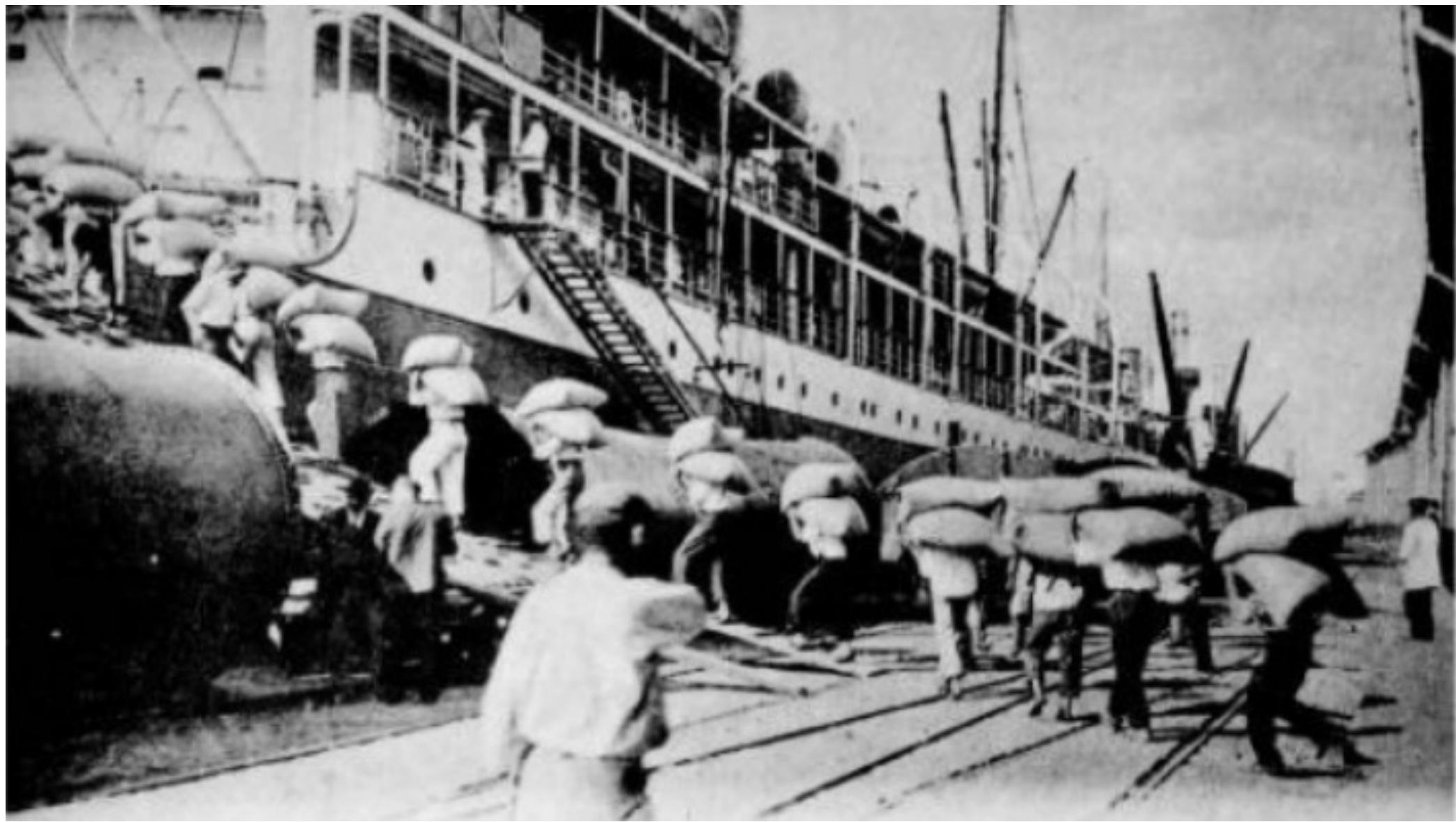
Ferramentas de fila

H.RabbitMQ





Container



# Kubernetes

 **kubernetes**  Search  + CREATE | 

☰ Overview

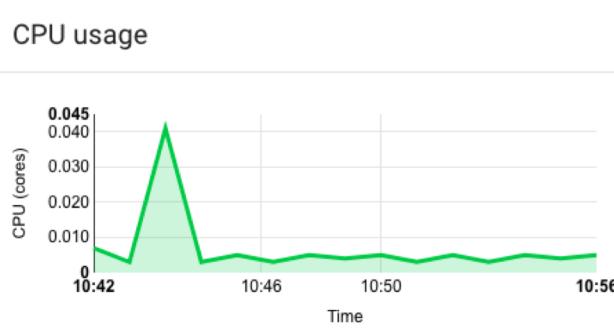
- Cluster
- Namespaces
- Nodes
- Persistent Volumes
- Roles
- Storage Classes

Namespace **kube-system** ▾

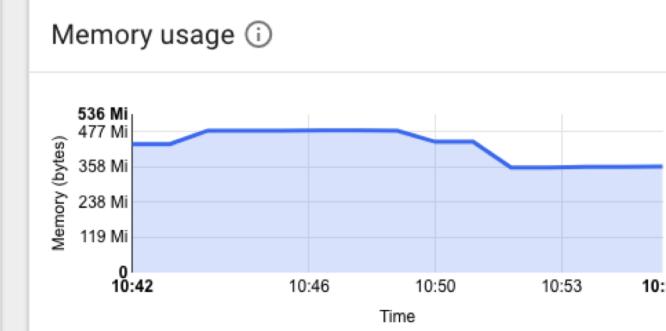
**Overview**

- Workloads
- Cron Jobs
- Daemon Sets
- Deployments
- Jobs
- Pods
- Replica Sets

**CPU usage**



**Memory usage** ⓘ



**Workloads**

**Workloads Statuses**

- Daemon Sets: 100.00%
- Deployments: 100.00%
- Pods: 100.00%
- Replica Sets: 100.00%



**kubernetes**

# CD

SPINNAKER Applications Infrastructure Search 

**hello**  PIPELINES 1 CLUSTERS LOAD BALANCERS SECURITY GROUPS TASKS CONFIG

**Filters** Clear All 

**SEARCH**  

**PIPELINES**  hello 

**STATUS**  Running  Failed  Completed  Not Started  Canceled  Stopped

**hello**

**BUILD #4**  
TRIGGERED BUILD  
Hello Poll  
2015-11-24 18:13:14 EST

Status: **RUNNING** Duration: 0:41

Jenkins Build #21  Deploy 

**DEPLOY DETAILS** 

Step	Started	Duration	Status
Deploy in us-west-2	2015-11-24 18:17:39 EST	00:16	<b>RUNNING</b>
Shrink Cluster	-	-	<b>NOT STARTED</b>

Deployment Config Task Status

Account **MY-AWS-ACCOUNT** VPC internal (vpc-spinnaker)  
Region **us-west-2** (us-west-2a, us-west-2b, us-west-2c) Strategy **highlander**  
Capacity **2**  
Cluster **hello-stack-deet**

Deployed: **hello-stack-deet-v000**

[Source](#) | [Permalink](#) 



# CD

The screenshot shows the Drone CI web interface at [beta.drone.io](https://beta.drone.io). On the left, a sidebar lists repositories: octocat/hello-world, octocat/spoon-knife, octocat/linguist, github/linguist, and github/orchestrator. Each entry includes a green checkmark icon and build status information (e.g., 2 days ago, 10 seconds). The main area displays the details for the octocat/hello-world repository, which has three builds listed. The top build is highlighted with a teal background and shows the following information:

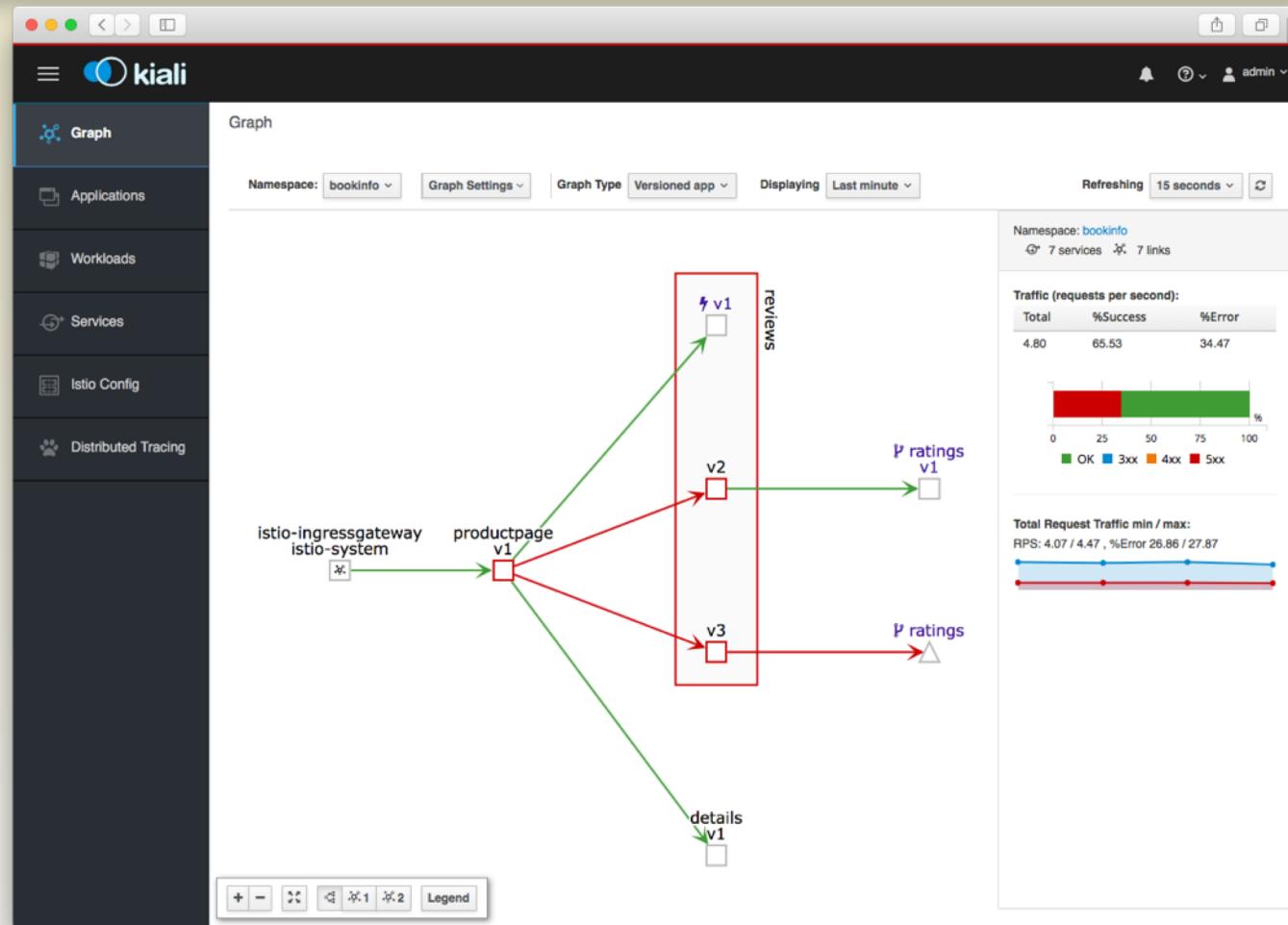
- Branch: master
- Commit: 1a62dafd
- Author: octocat
- Time: 1 month ago
- Duration: 2 minutes, 5 seconds

A message indicates a "Merge pull request #6 from Spaceghost/patch-1". Below this, there are sections for "clone" and "test". The "test" section shows a log of test commands and their execution times:

```
1 + go install github.com/drone/mq/cmd/mq          0s
2 + go test -cover -v github.com/drone/mq/stomp/... 5s
3 === RUN   TestHeader                           7s
4 --- PASS: TestHeader (0.00s)                   7s
5 === RUN   TestMessageCopy                     7s
6 --- PASS: TestMessageCopy (0.00s)               7s
7 === RUN   TestMessageRelease                 7s
8 --- PASS: TestMessageRelease (0.00s)             7s
9 === RUN   TestOptions                         7s
10 --- PASS: TestOptions (0.00s)                  7s
```



# Service Mesh - Istio



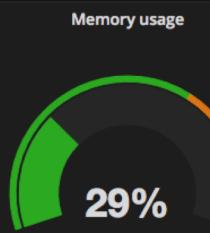
# Sidecar Container





Node

All



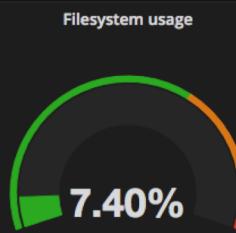
Used  
**12.56 GiB**

Total  
**42.86 GiB**



Used  
**0.81 cores**

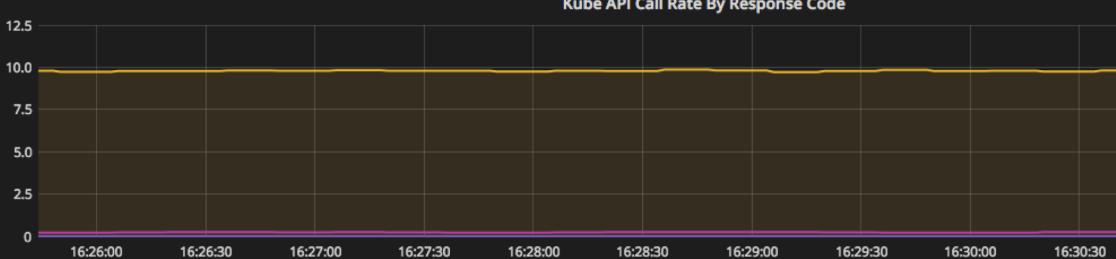
Total  
**12.00 cores**



Used  
**14.35 GiB**

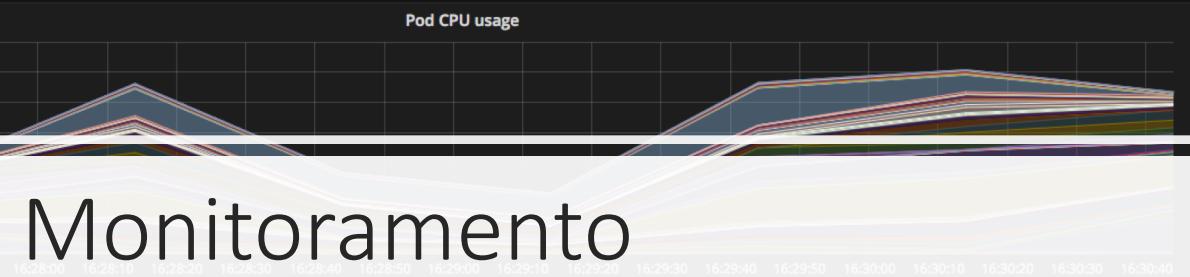
Running pods  
**94**

Running containers  
**100**



Legend for Docker Error Count:

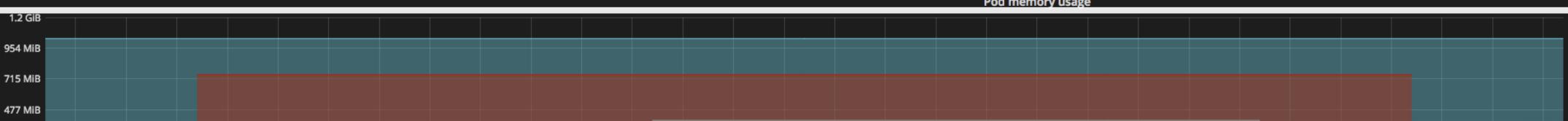
- ip-10-0-102-98.eu-west-1.compute.internal
- ip-10-0-102-98.eu-west-1.compute.internal
- ip-10-0-102-62.eu-west-1.compute.internal
- ip-10-0-102-62.eu-west-1.compute.internal
- ip-10-0-102-10.eu-west-1.compute.internal
- ip-10-0-102-10.eu-west-1.compute.internal
- ip-10-0-102-10.eu-west-1.compute.internal
- ip-10-0-101-36.eu-west-1.compute.internal
- ip-10-0-101-36.eu-west-1.compute.internal



Legend for Pod CPU usage:

- bayesian-3724370102-htwpb
- kube-apiserver-ip-10-0-102-98.eu-west-1.compute.internal
- kube-node-drainer-sg-ds-pqwk2
- kube-node-drainer-sg-ds-mcq
- kube-node-drainer-sg-ds-ppm
- kube-node-drainer-sg-ds-g8tjv
- calico-policy-controller-3255080063-w87bl
- kube-node-drainer-sg-ds-j6ppz
- calico-node-s6wwt

# Monitoramento





Prometheus



Grafana

**Direcionar  
parte do  
fluxo e testar  
em produção  
é mais  
acertivo.**

Chega de falar de teste  
unitário, entregar rápido  
e se recuperar rápido.

Monitorar é melhor que  
testar.

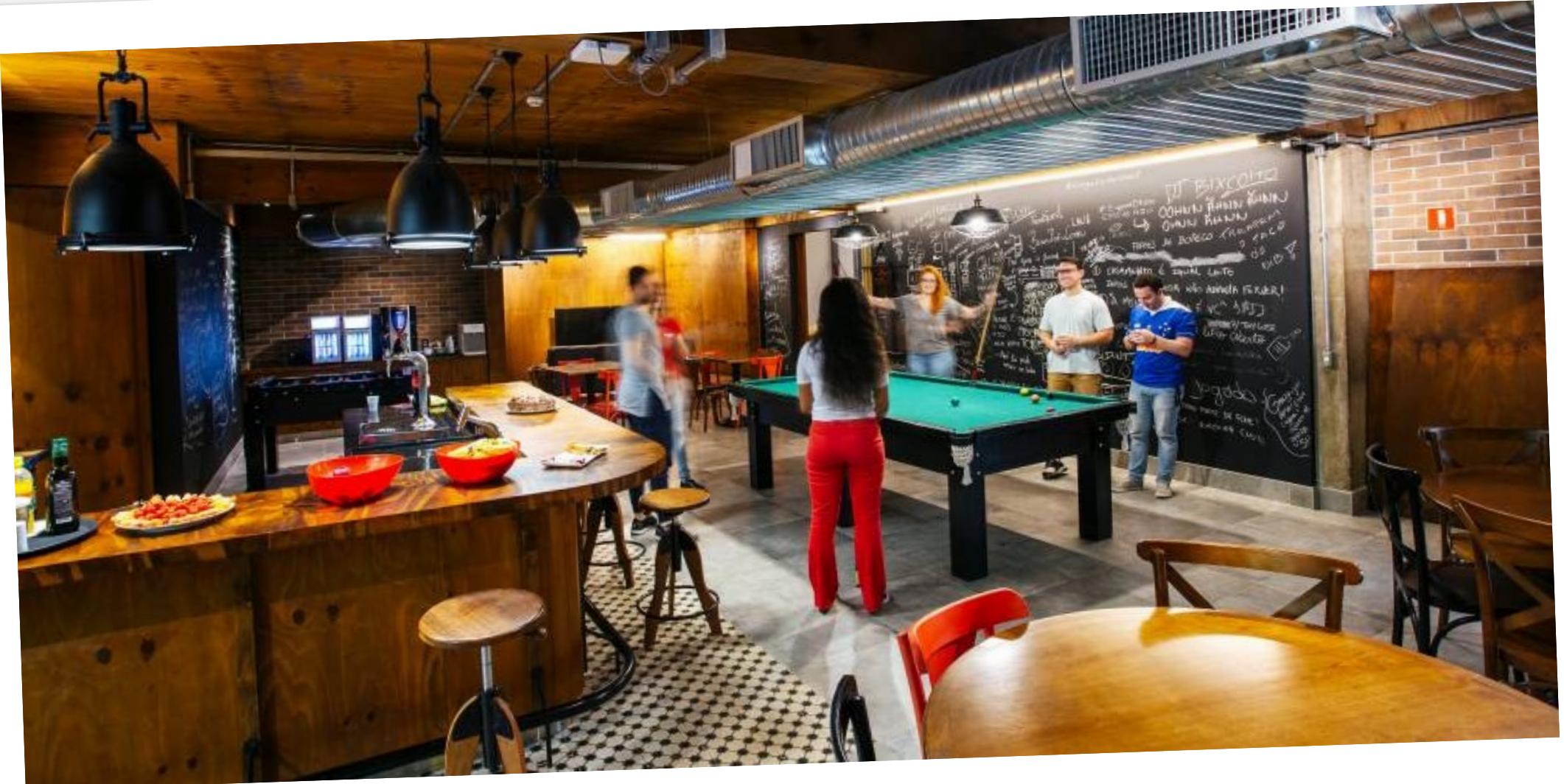
# CDV

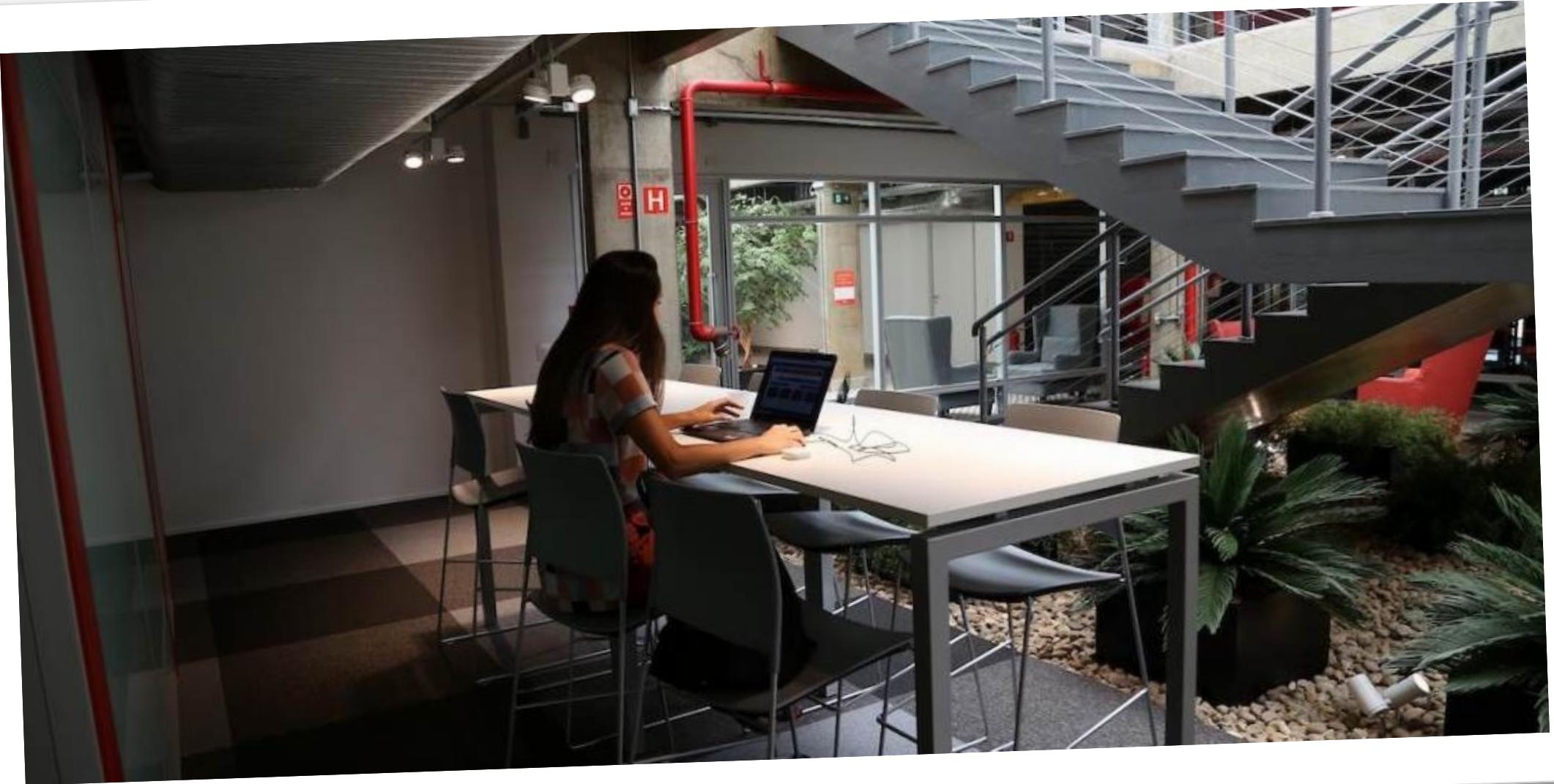


Timesheet in Excel

Date	Time In	Lunch In	Lunch Out	Time Out	Total Work Hours
20-Dec-18	9:00	12:00	12:22	18:00	8:38
21-Dec-18	9:00	12:10	12:35	18:25	9:00
22-Dec-18	9:00	12:0	12:31	18:01	8:43
23-Dec-18	9:00	12:03	12:25	16:00	6:38
24-Dec-18	9:00	12:00	12:30	17:45	8:1%
				Total	17:45
				Pay	2228





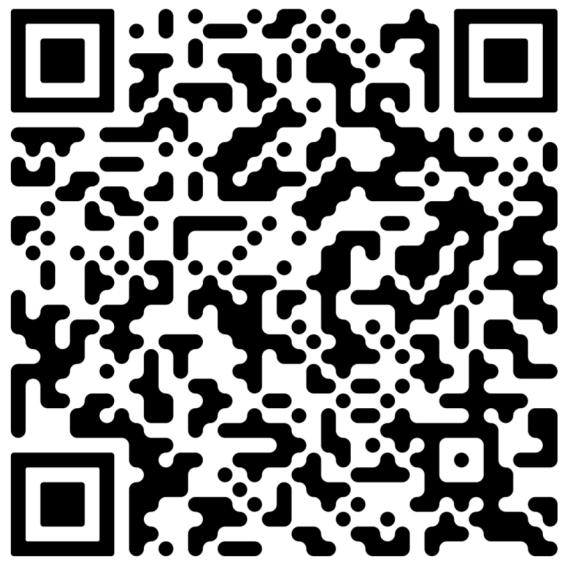








<https://www.ifood.com.br/carreiras>



*Scan me*

74



# Obrigado



- mthunsche@gmail.com



- /matheus.hunsche



- @HunscheMatheus



- matheus.hunsche

Da sala de reunião à vida real

Embarcadero Conference 2019