

# **Ambientes Descartáveis**

utilizando Docker



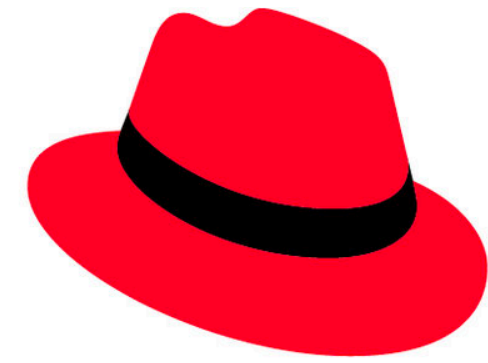
**\$ whoami**



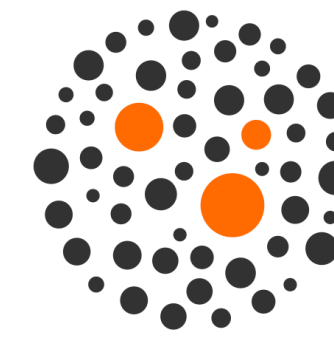
Carlos Ribeiro



# Carlos Ribeiro



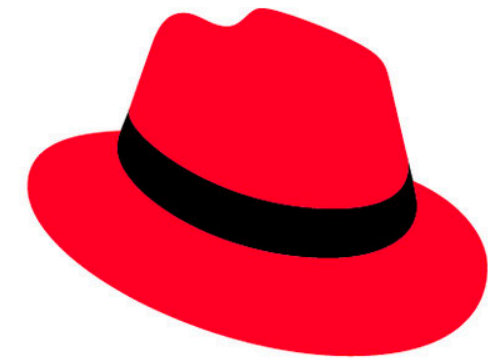
**Red Hat**



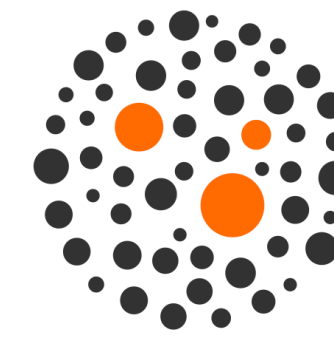
**3SCALE**



# Carlos Ribeiro



**Red Hat**

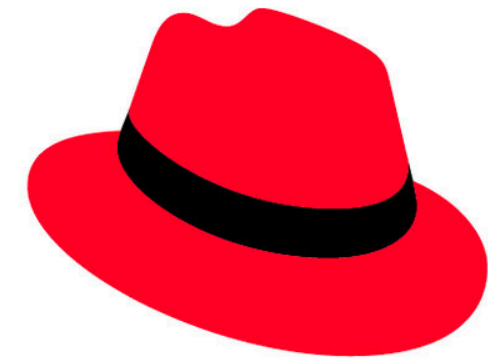


**3SCALE**

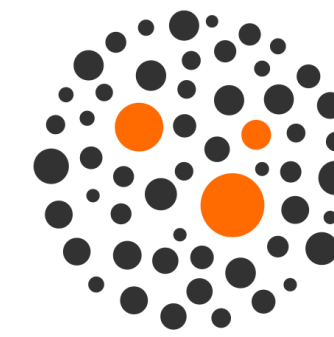
<https://cadu.dev>



# Carlos Ribeiro



**Red Hat**



**3SCALE**

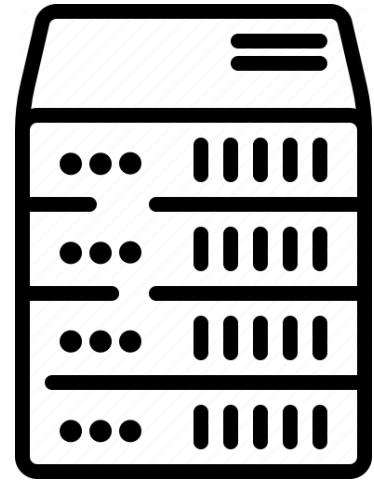
<https://cadu.dev>





<https://opensanca.com.br>





**QA / Staging / UAT**

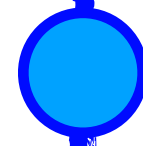


**Produção**

# Repositório

# Repositório

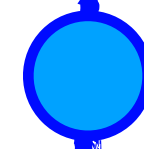
entregável



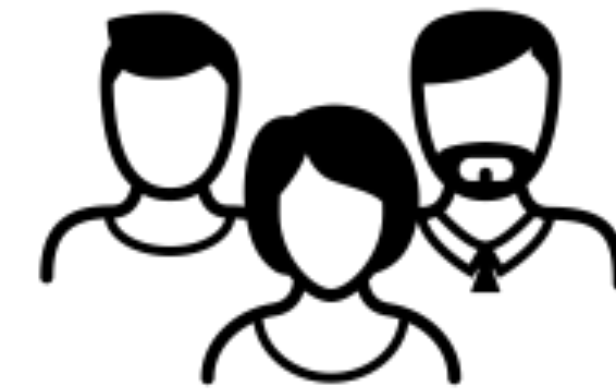
master

# Repositório

entregável



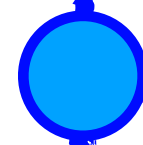
master



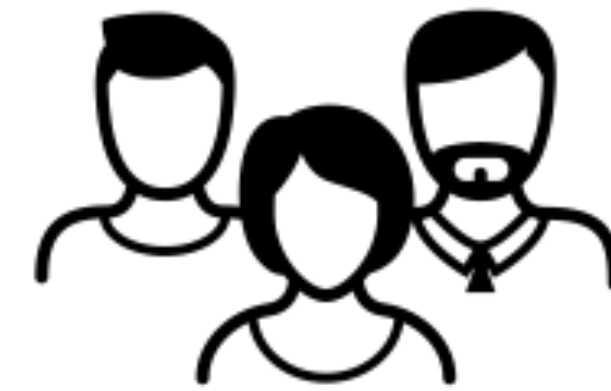
time A

# Repositório

entregável



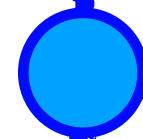
master



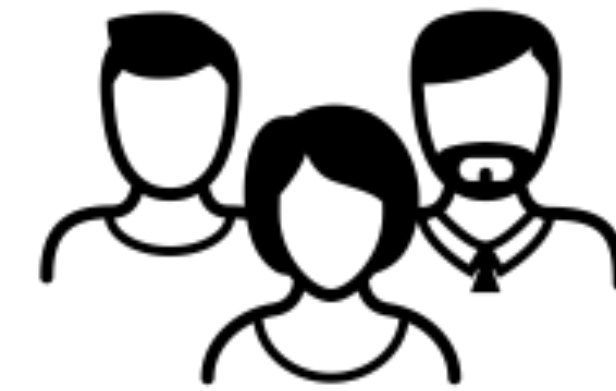
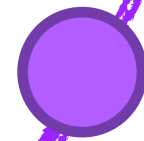
time A

# Repositório

entregável



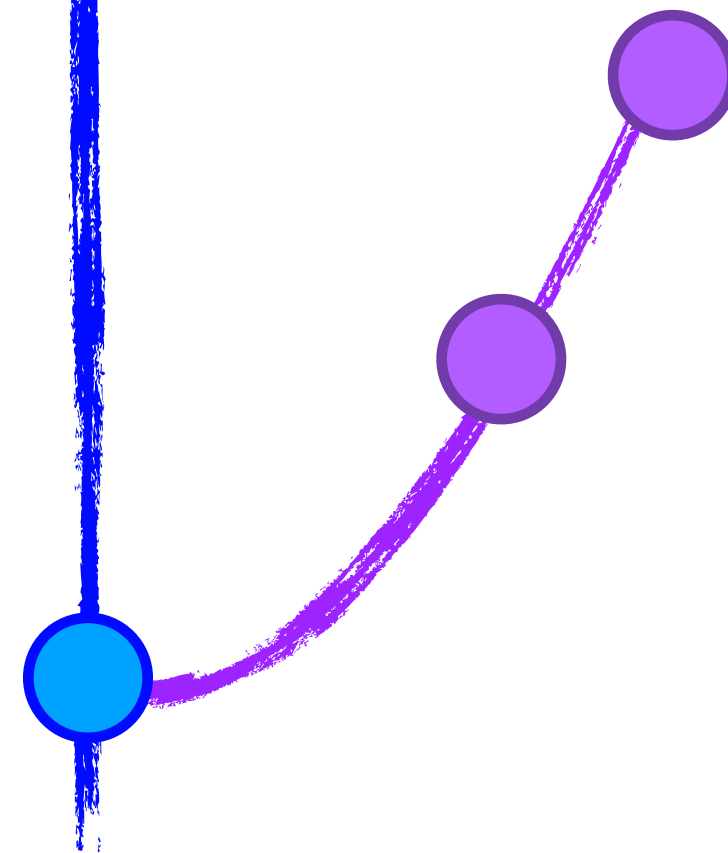
master



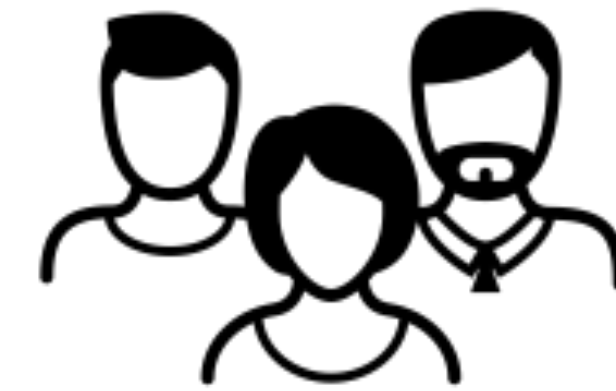
time A

# Repositório

entregável

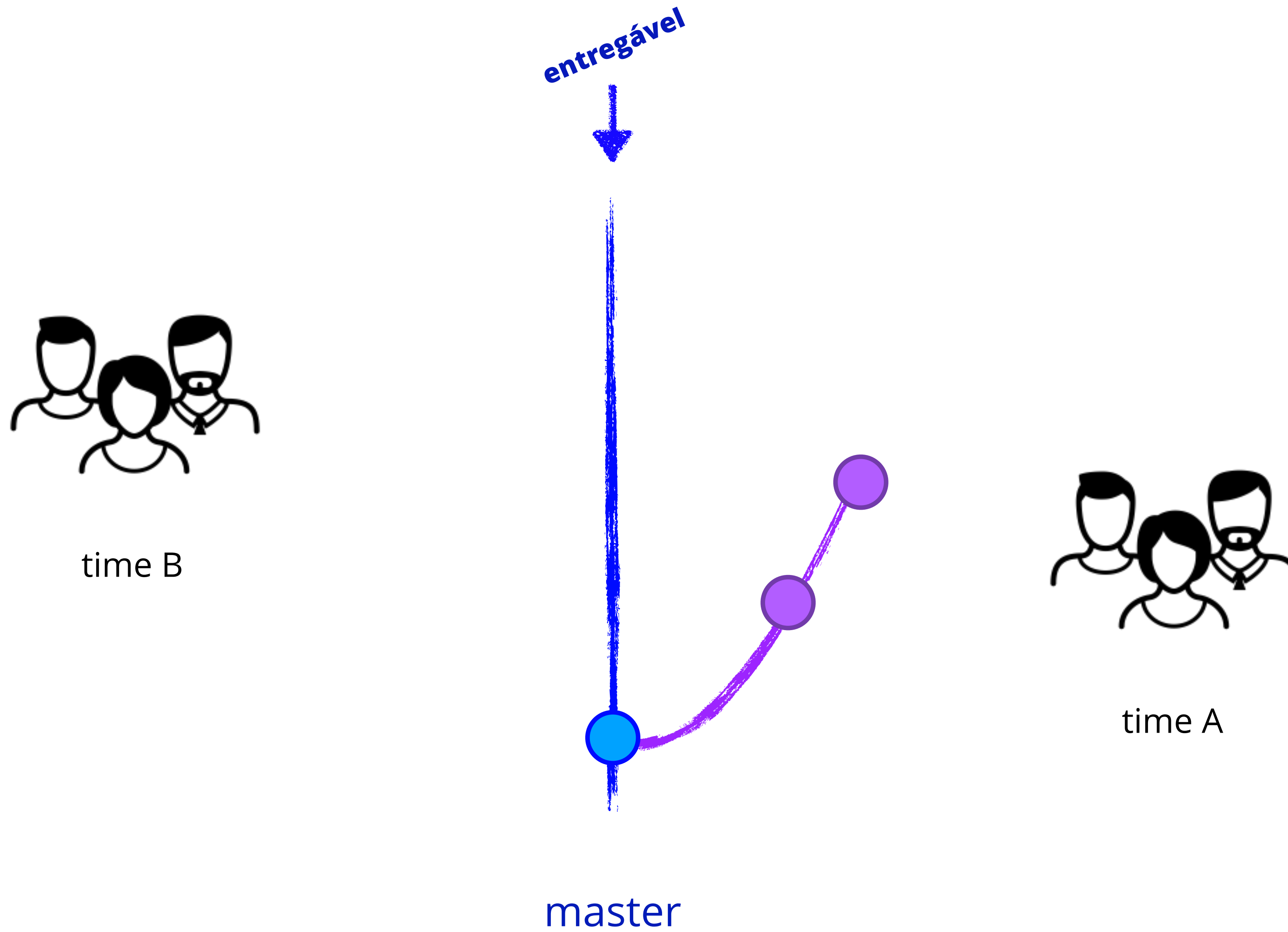


master



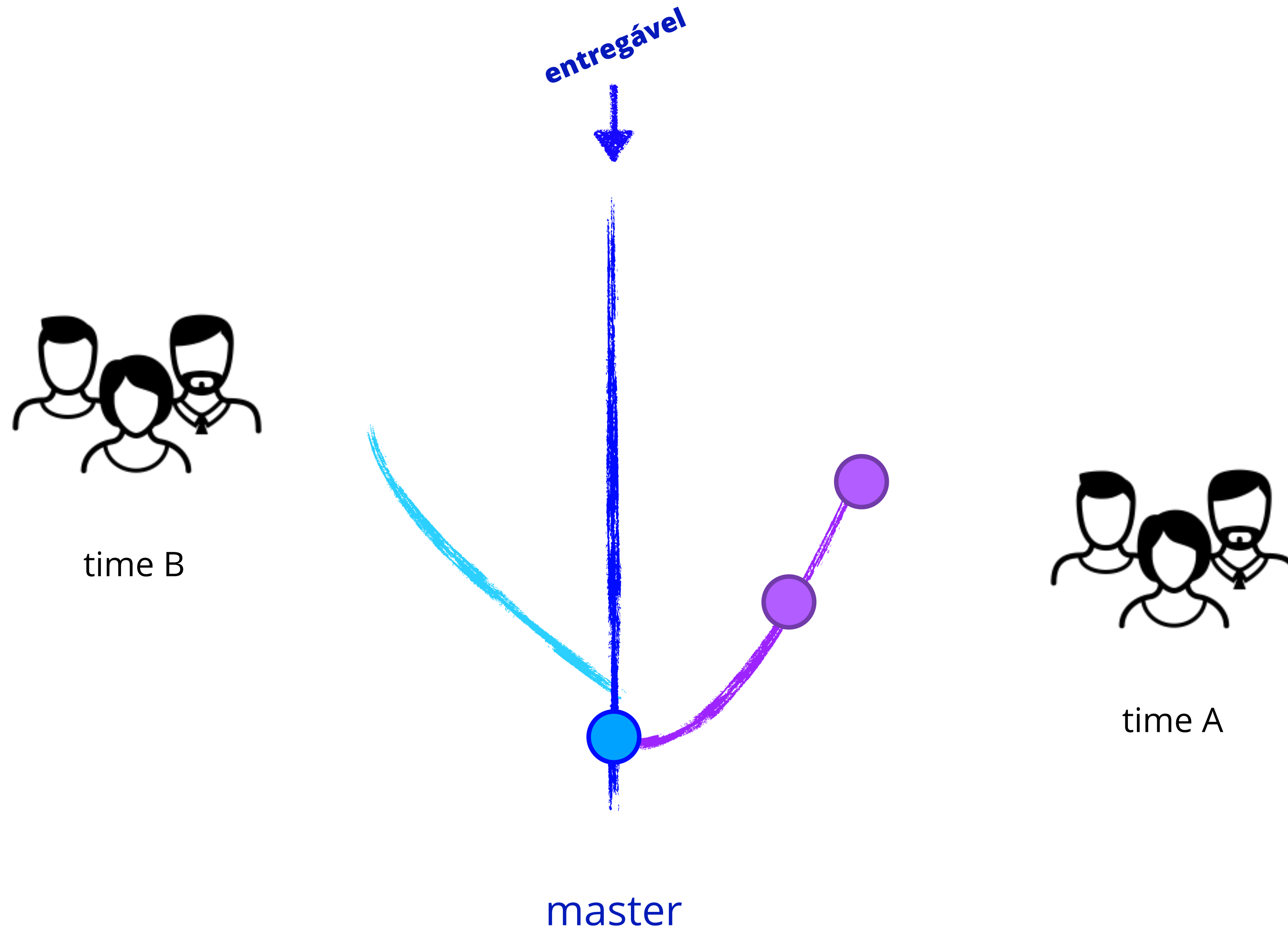
time A

# Repositório

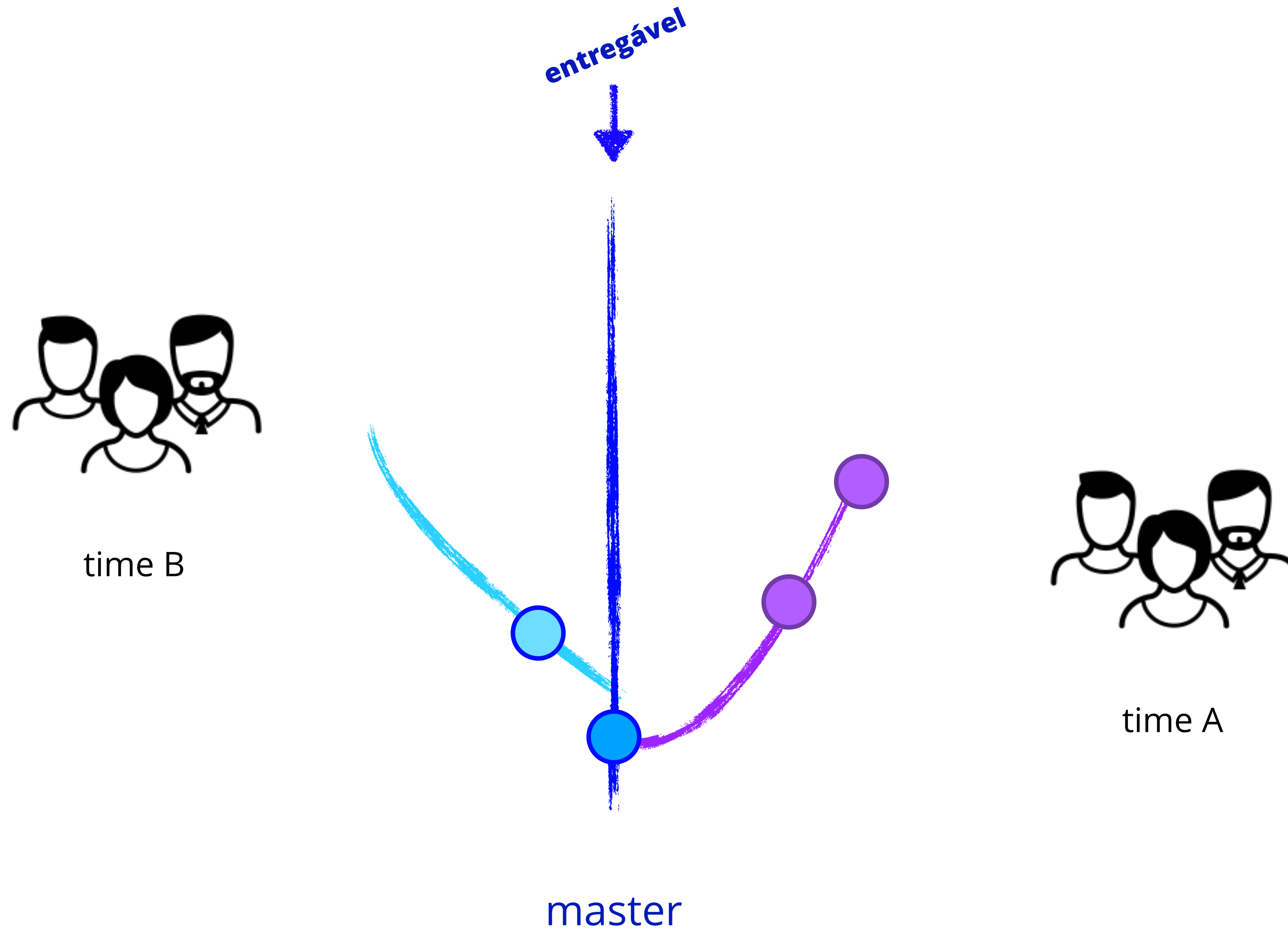




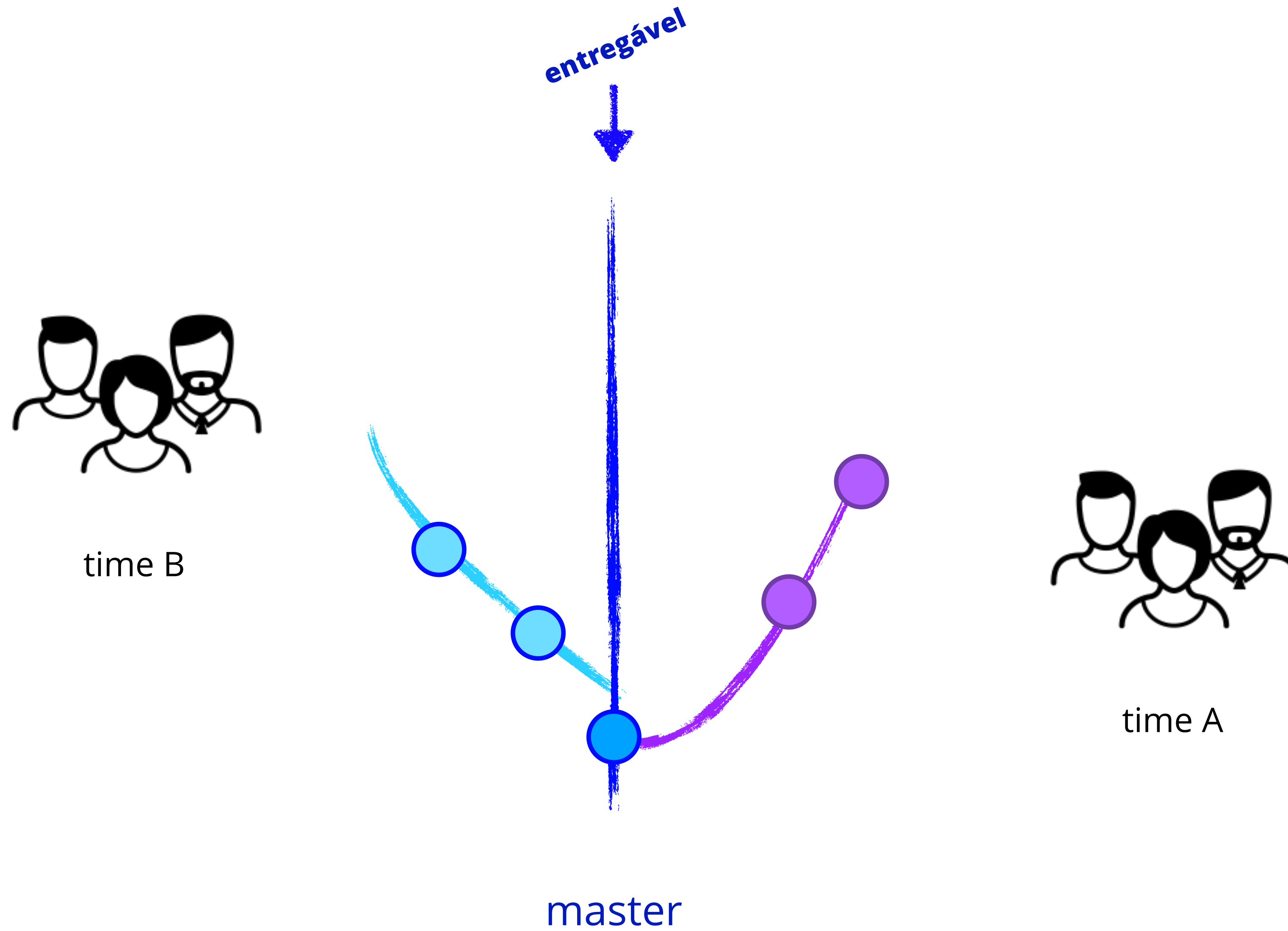
# Repositório



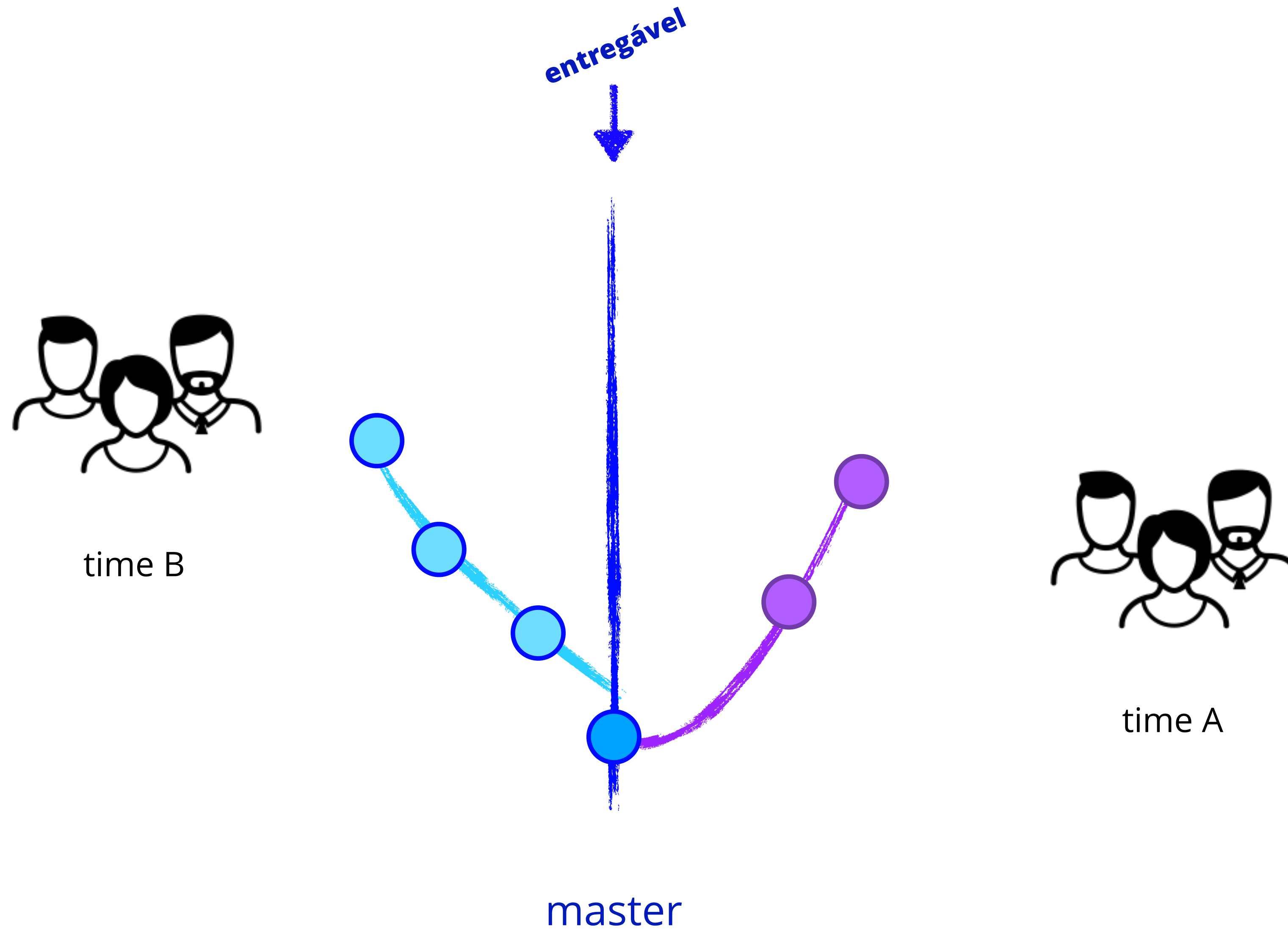
# Repositório



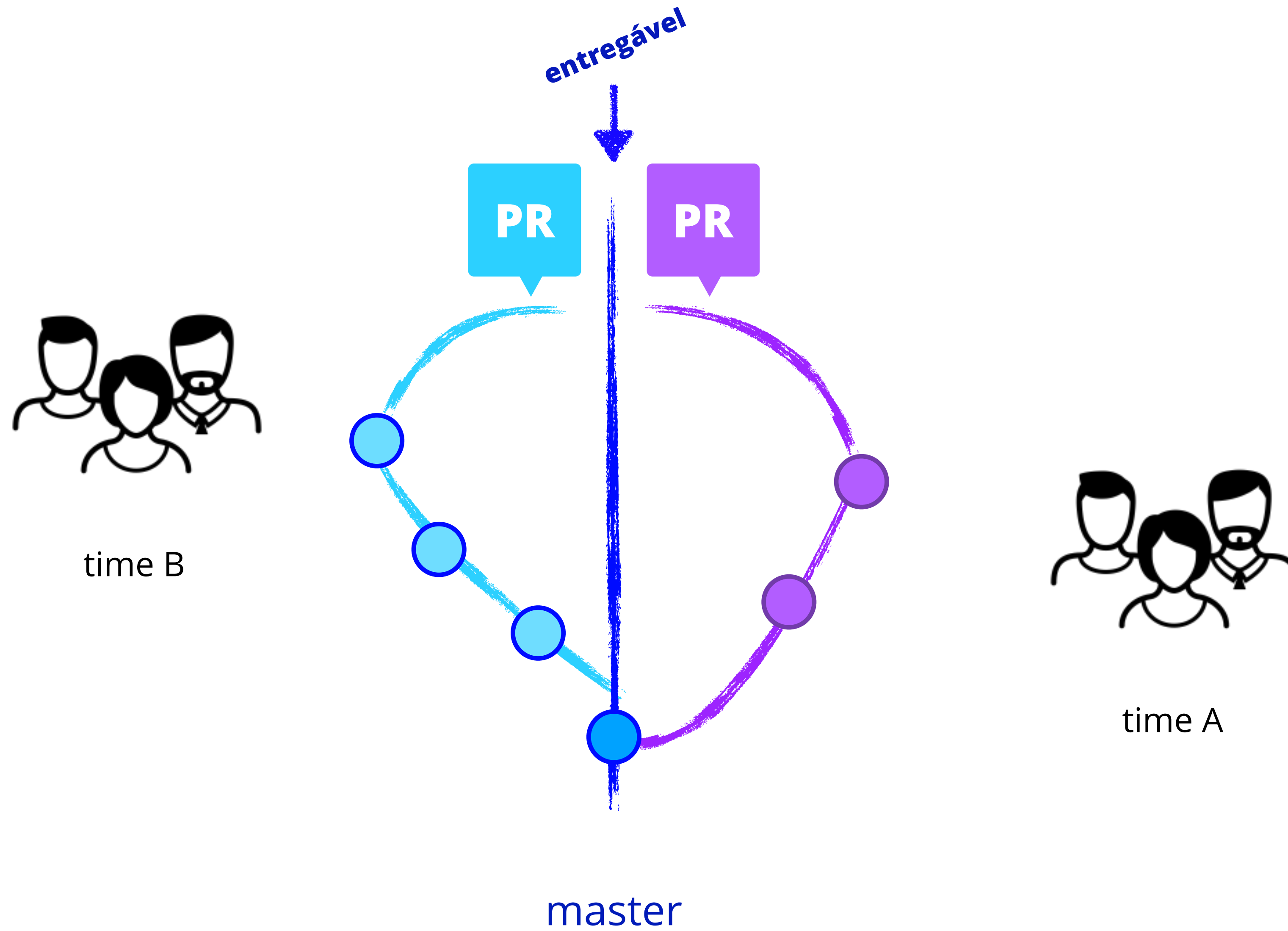
# Repositório



# Repositório



# Repositório



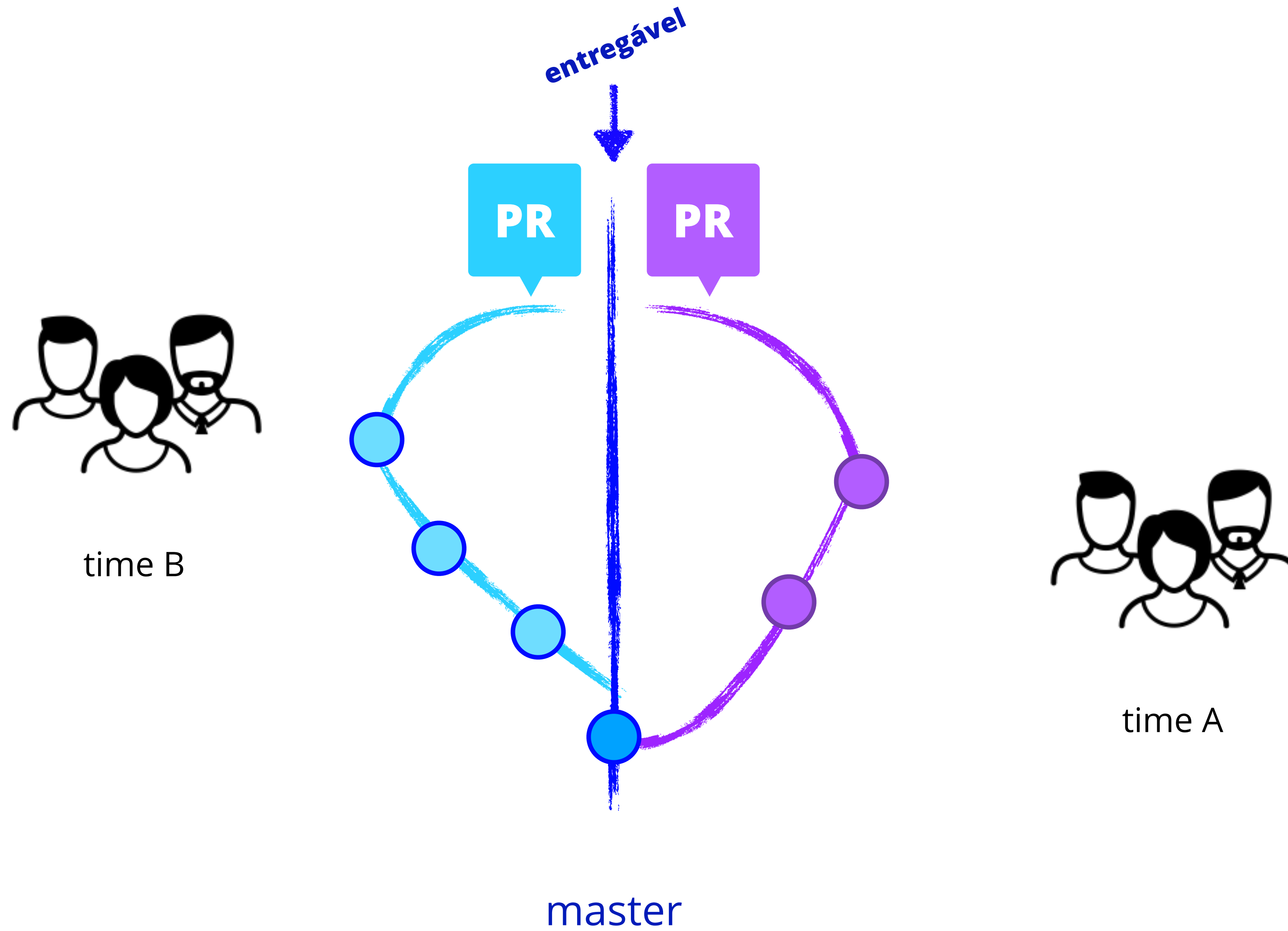


**“Alguém usando o servidor de Staging??”**



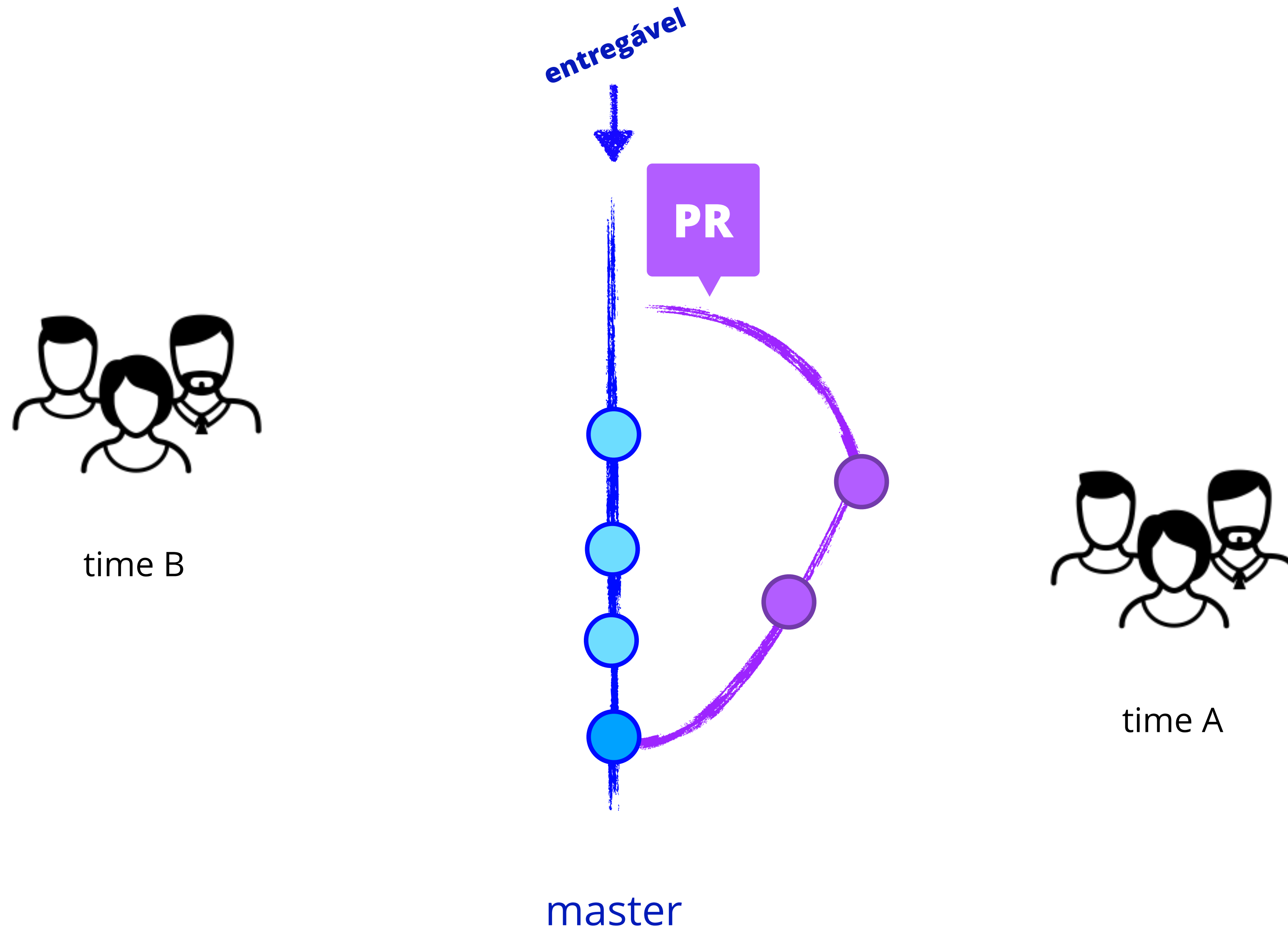
**“Staging é meu! 🙋 Ninguém faz deploy...”**

# Repositório



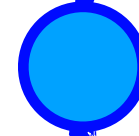
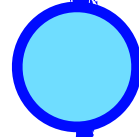
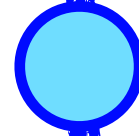
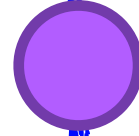
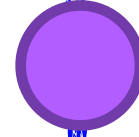


# Repositório



# Repositório

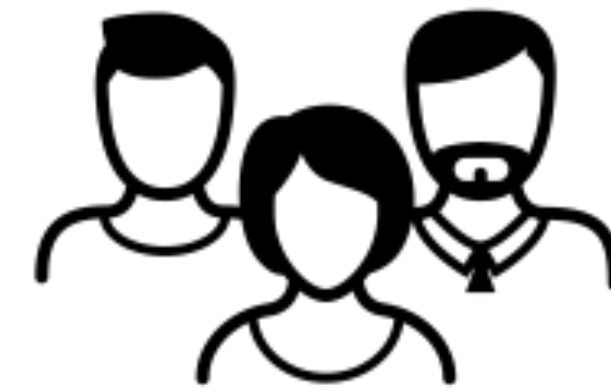
entregável



master

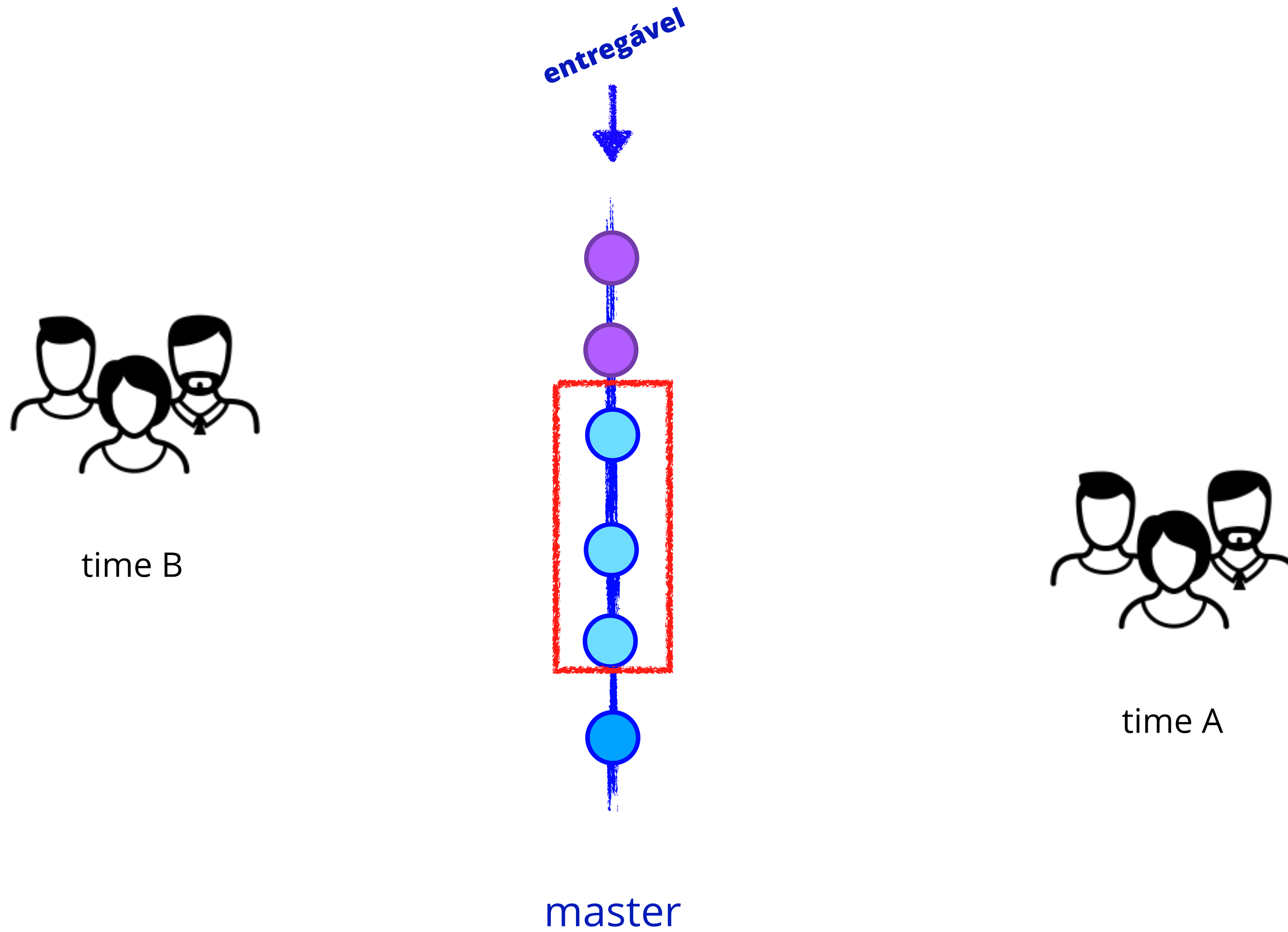


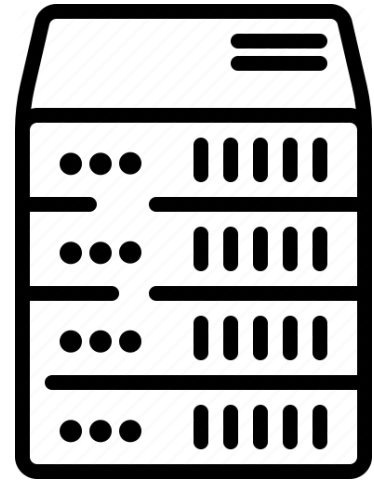
time B



time A

# Repositório

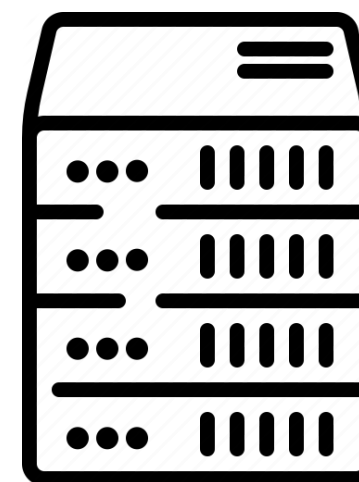




**QA / Staging / UAT**



**Produção**



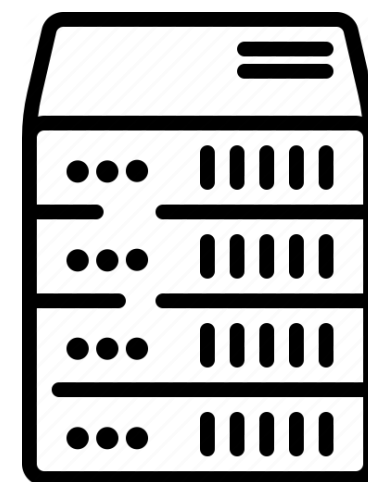
**QA / Staging / UAT**



**Produção**



**Produção**

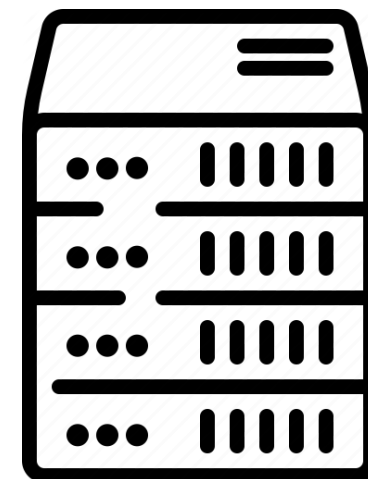


**QA / Staging / UAT**

PR



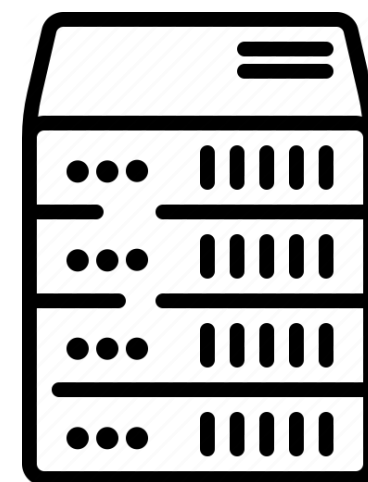
**Produção**



**QA / Staging / UAT**



**Produção**



**QA / Staging / UAT**

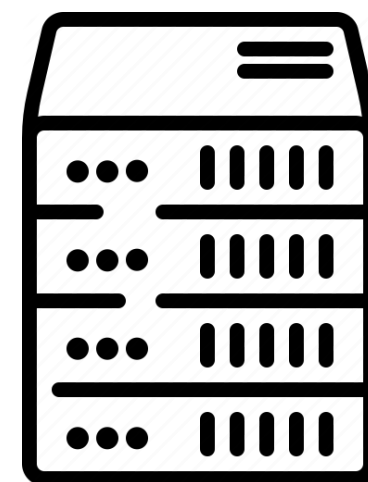


PR

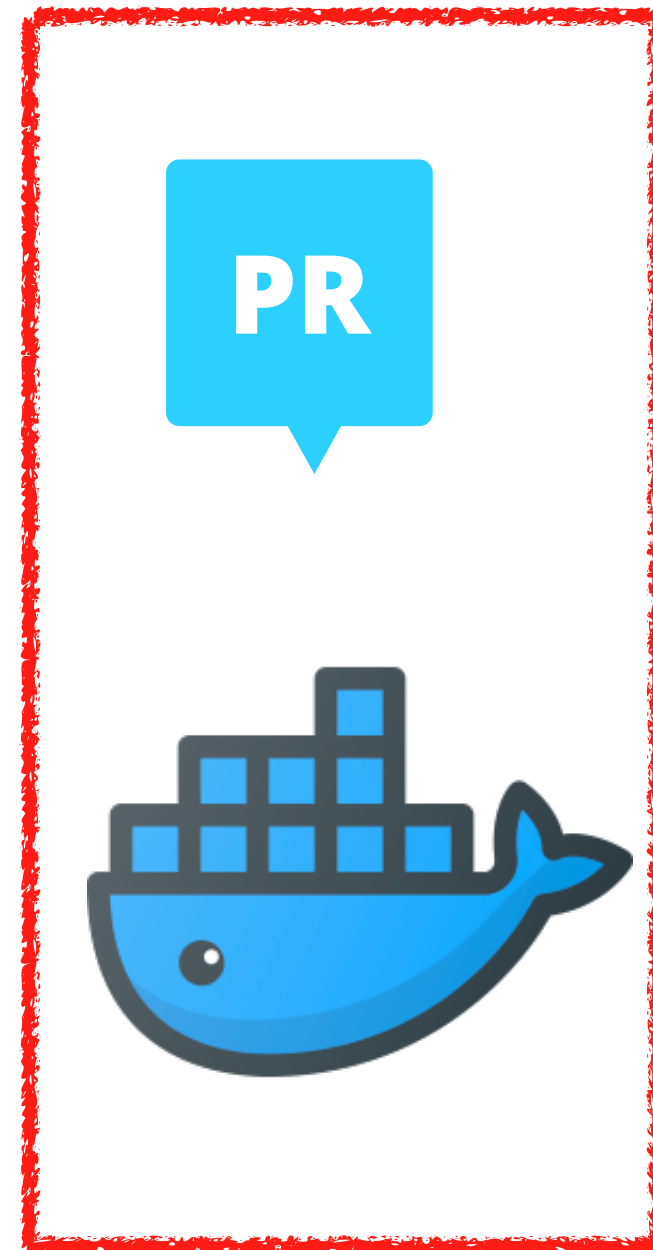
PR



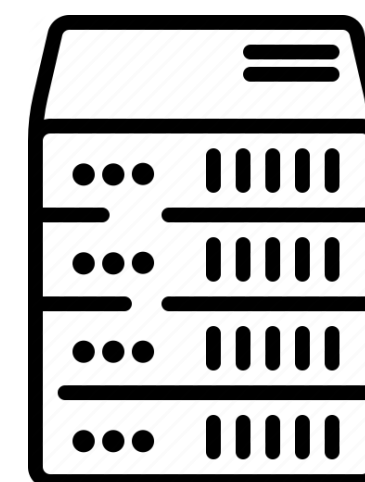
**Produção**



**QA / Staging / UAT**



**Produção**



**QA / Staging / UAT**



**Jenkins**







✓ [openjobs\\_jenkins\\_test 1](#) >

Pipeline

Changes

Tests

Artifacts



Logout



Branch: [master](#)

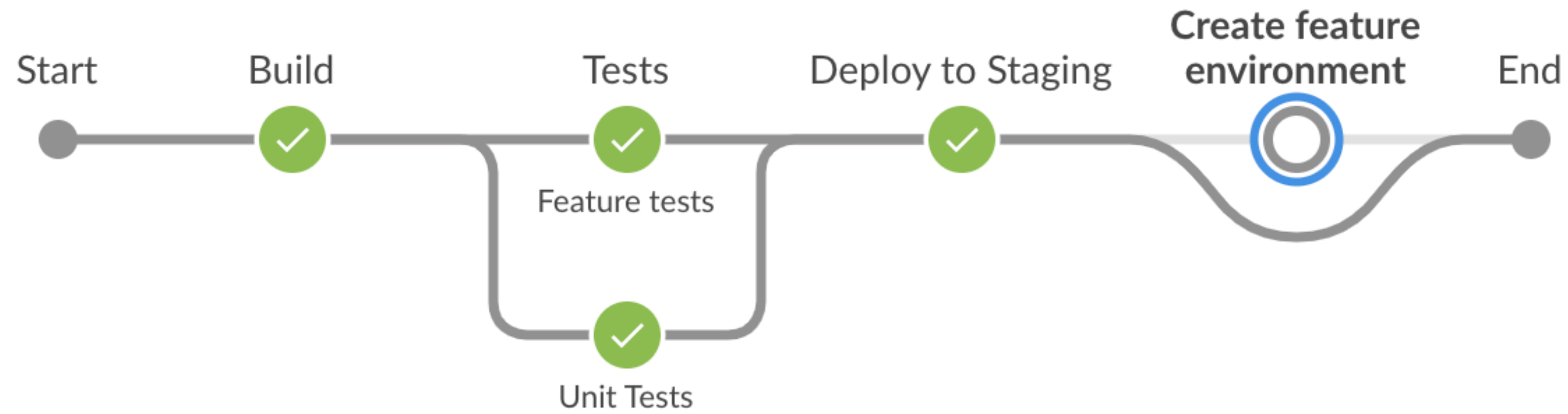
🕒 15d 14h 47m 24s

No changes

Commit: [71a367b](#)

🕒 2 hours ago

Branch indexing

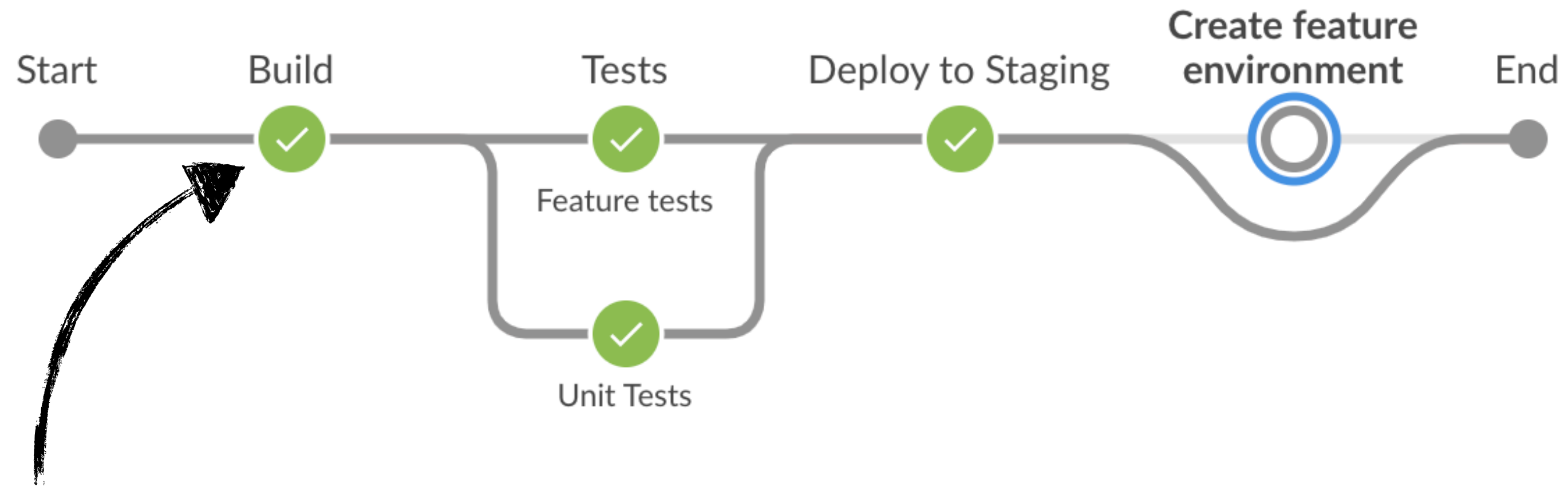




✓ [openjobs\\_jenkins\\_test 1](#) > Pipeline Changes Tests Artifacts ↺ ✎ ⚙️ ➡️ Logout ✕

Branch: [master](#) 🕒 15d 14h 47m 24s No changes

Commit: [71a367b](#) 🕒 2 hours ago Branch indexing



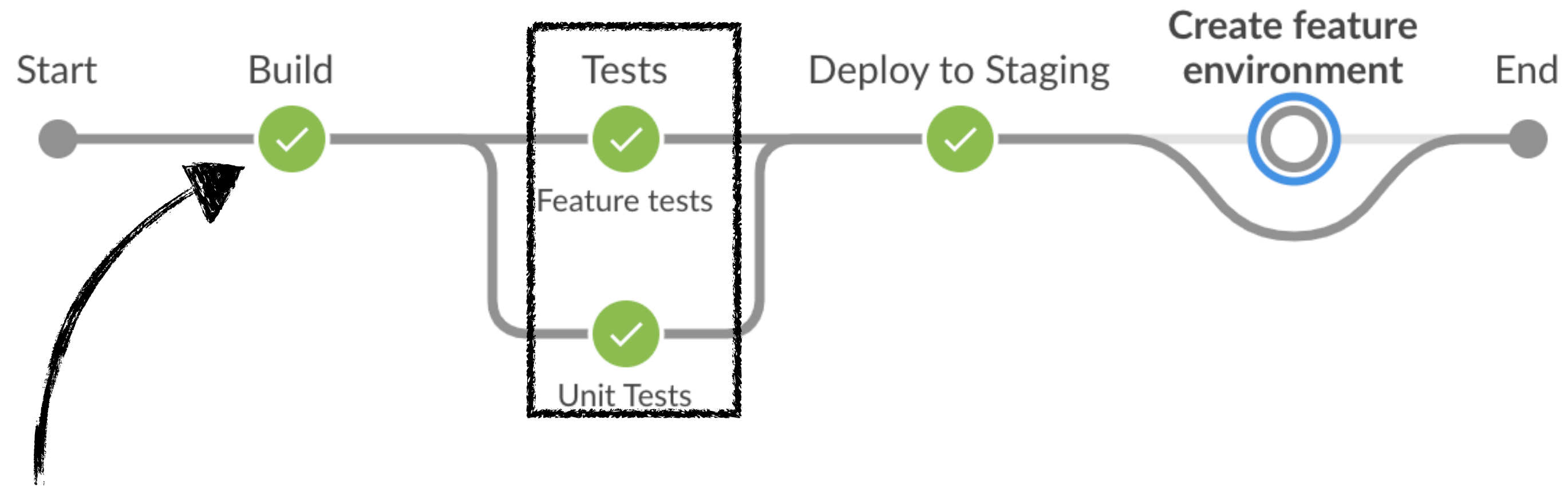
Construir a imagem Docker da aplicação



✓ [openjobs\\_jenkins\\_test 1](#) > Pipeline Changes Tests Artifacts ↺ ✎ ⚙️ ➡️ Logout ✕

Branch: [master](#) 🕒 15d 14h 47m 24s No changes

Commit: [71a367b](#) 🕒 2 hours ago Branch indexing



Construir a imagem Docker da aplicação

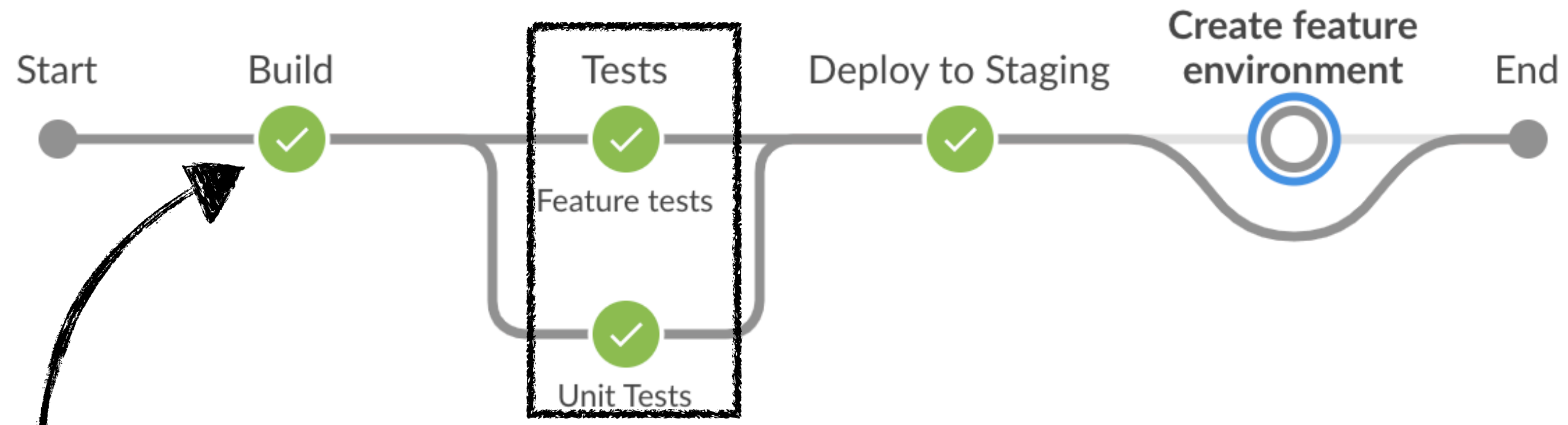




✓ [openjobs\\_jenkins\\_test 1](#) > Pipeline Changes Tests Artifacts ↺ ✎ ⚙ ➡ Logout ✕

Branch: [master](#) 🕒 15d 14h 47m 24s 📄 No changes

Commit: [71a367b](#) 🕒 2 hours ago 📄 Branch indexing



Construir a imagem Docker da aplicação

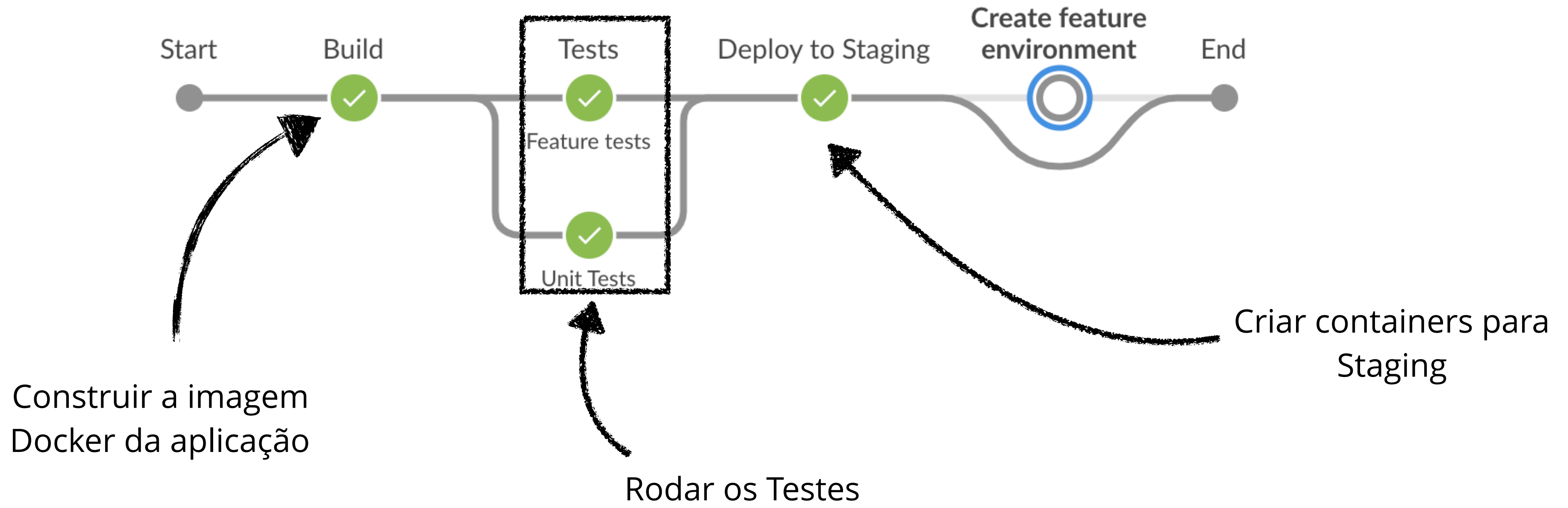
Rodar os Testes

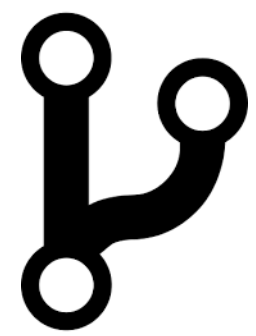


✓ [openjobs\\_jenkins\\_test 1](#) > Pipeline Changes Tests Artifacts ↺ ✎ ⚙️ ➡️ Logout ✕

Branch: [master](#) 🕒 15d 14h 47m 24s No changes

Commit: [71a367b](#) 🕒 2 hours ago Branch indexing





feature\_branch



feature\_branch



feature\_branch

✓ openjobs\_jenkins\_test 1 >

Pipeline

Changes

Tests

Artifacts



Logout



Pull Request: PR-1 [↗](#)

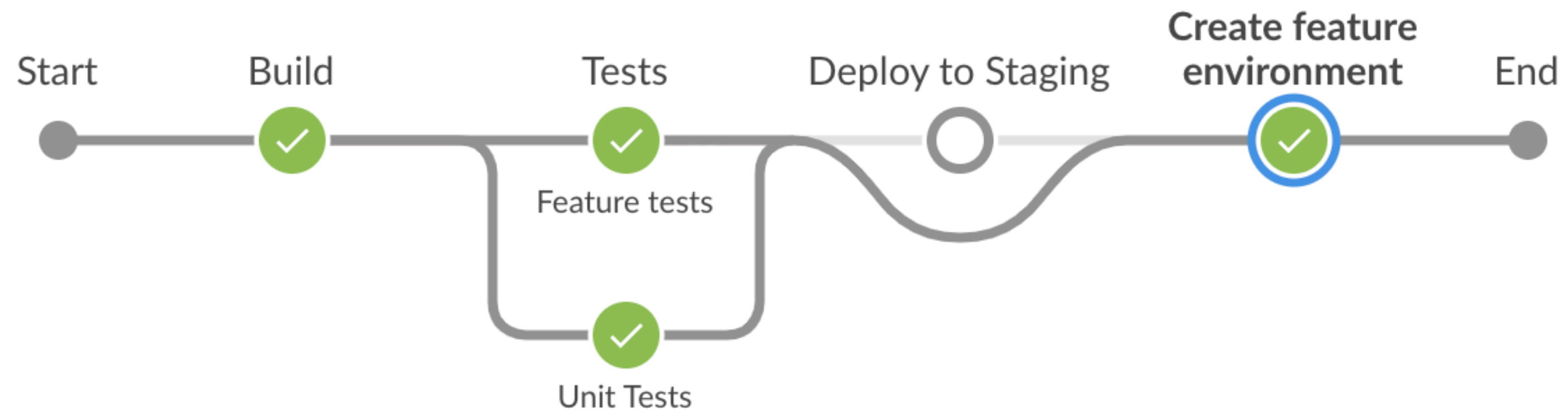
🕒 17m 55s

No changes

Commit: 0696a3c

🕒 2 hours ago

Branch indexing





feature\_branch

✓ [openjobs\\_jenkins\\_test](#) 1 >

Pipeline

Changes

Tests

Artifacts



Logout



Pull Request: PR-1 [↗](#)

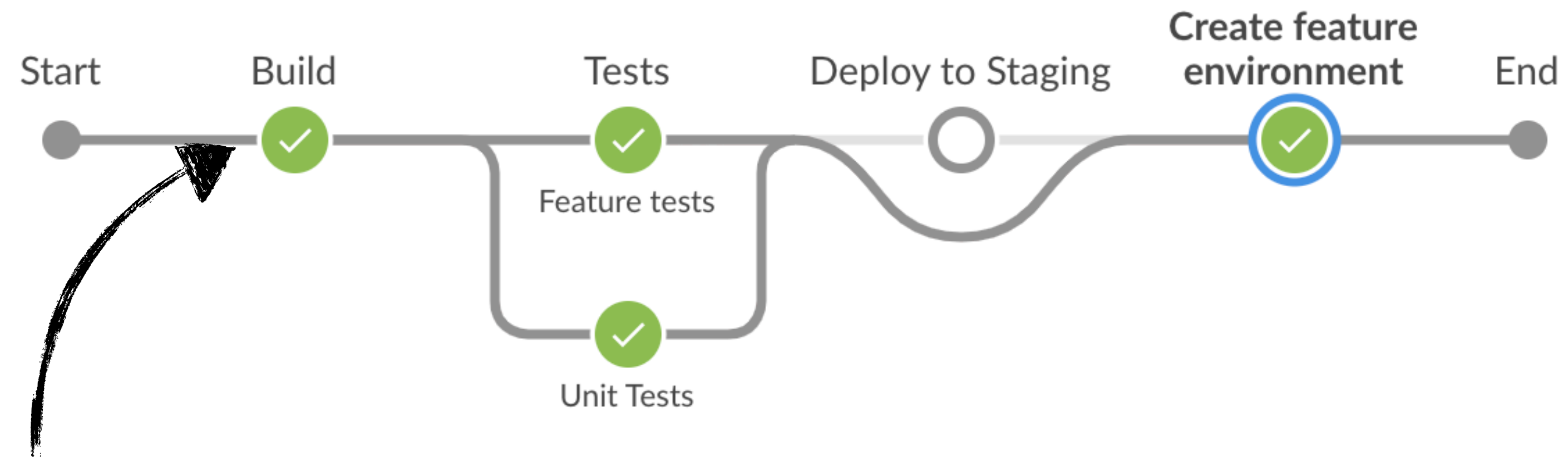
🕒 17m 55s

No changes

Commit: 0696a3c

🕒 2 hours ago

Branch indexing



Construir a imagem Docker da aplicação



feature\_branch

✓ openjobs\_jenkins\_test 1 >

Pipeline

Changes

Tests

Artifacts



Logout



Pull Request: PR-1

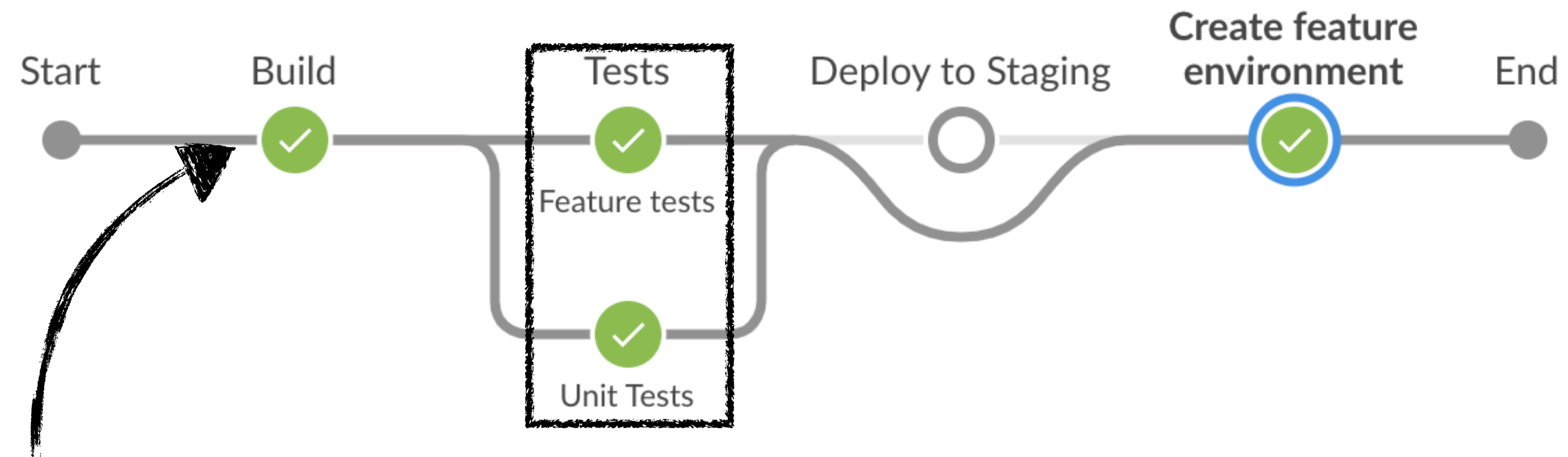
🕒 17m 55s

No changes

Commit: 0696a3c

🕒 2 hours ago

Branch indexing



Construir a imagem Docker da aplicação



feature\_branch

✓ openjobs\_jenkins\_test 1 >

Pipeline

Changes

Tests

Artifacts



Logout



Pull Request: PR-1 [↗](#)

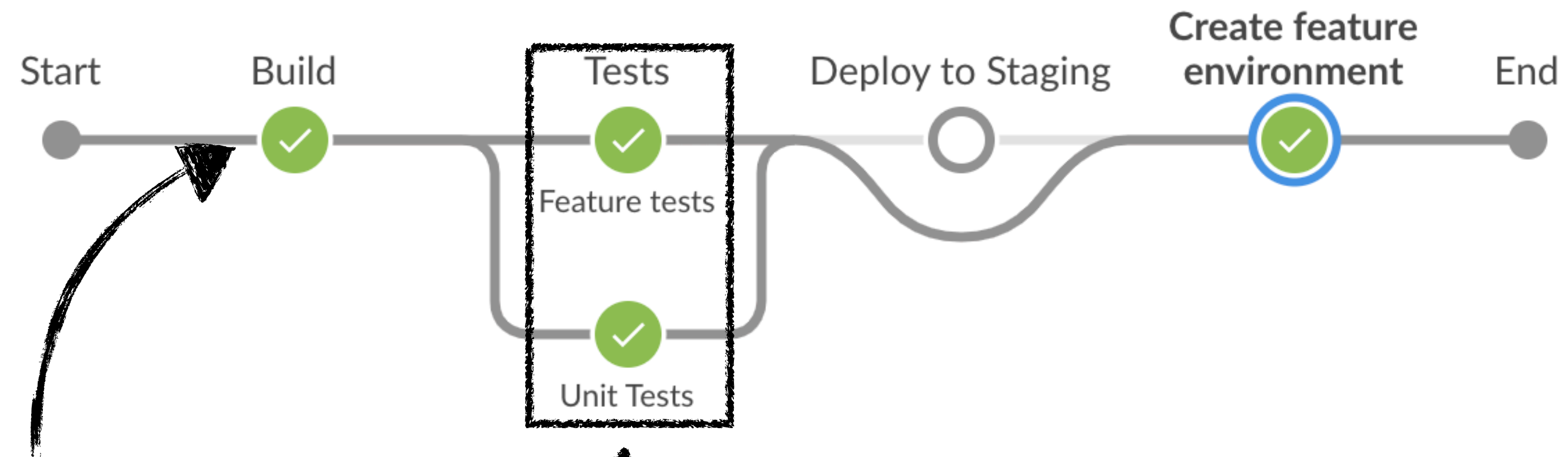
🕒 17m 55s

No changes

Commit: 0696a3c

🕒 2 hours ago

Branch indexing



Construir a imagem Docker da aplicação

Rodar os Testes





feature\_branch

✓ openjobs\_jenkins\_test 1 >

Pipeline

Changes

Tests

Artifacts



Logout



Pull Request: PR-1 [↗](#)

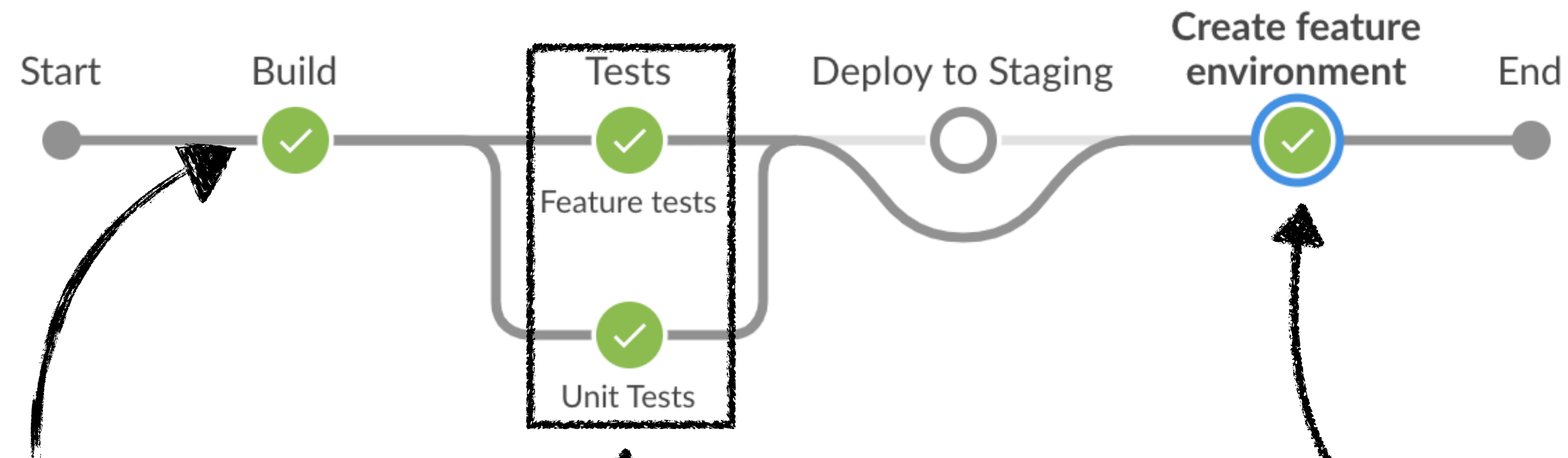
🕒 17m 55s

No changes

Commit: 0696a3c

🕒 2 hours ago

Branch indexing



Construir a imagem Docker da aplicação

Rodar os Testes

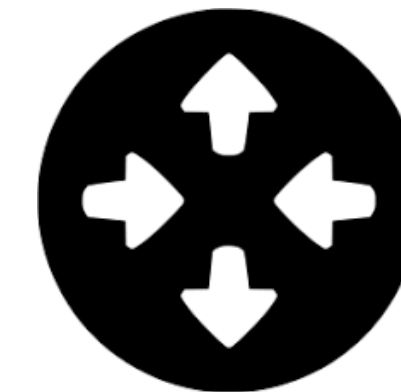
Criar containers para essa branch

staging.minhapp.net

meu\_pr\_1.minhapp.net

meu\_pr\_2.minhapp.net

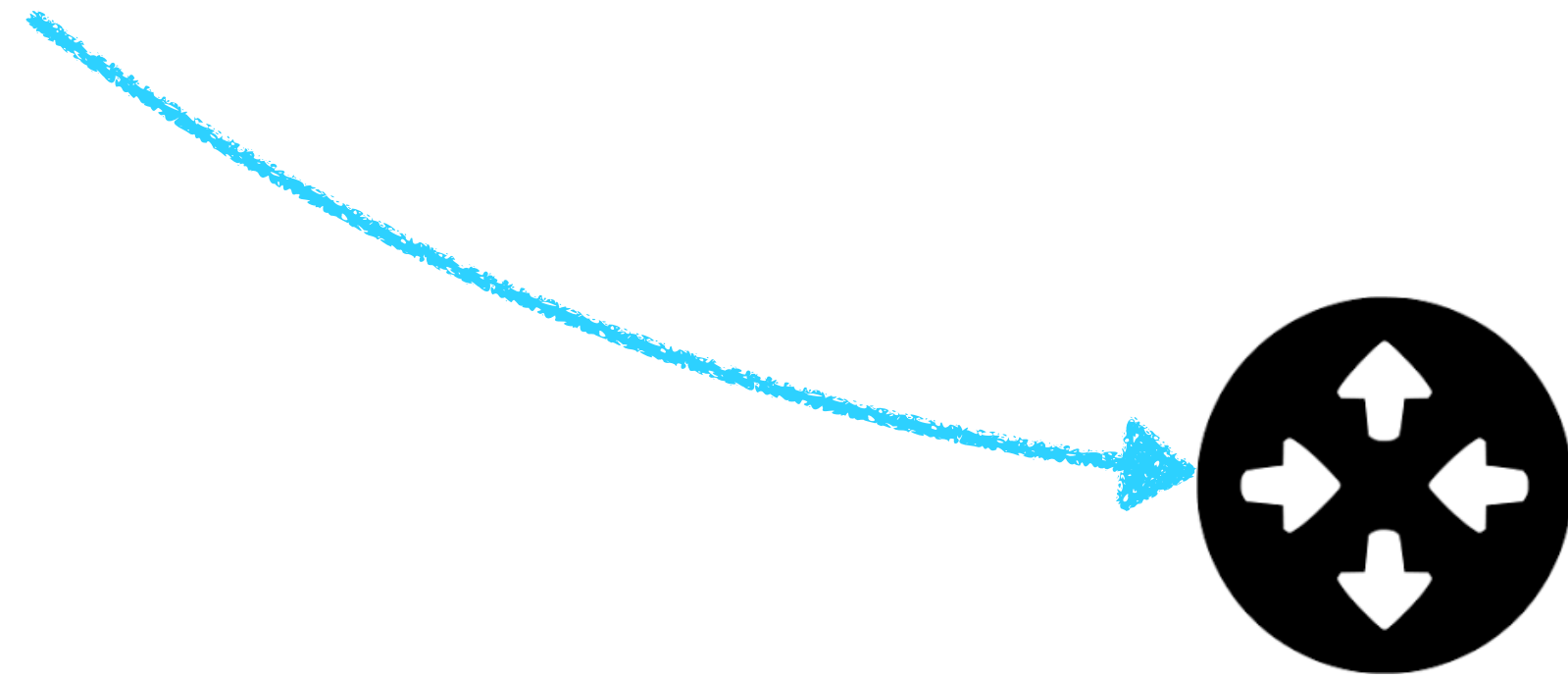
meu\_pr\_1.minhapp.net



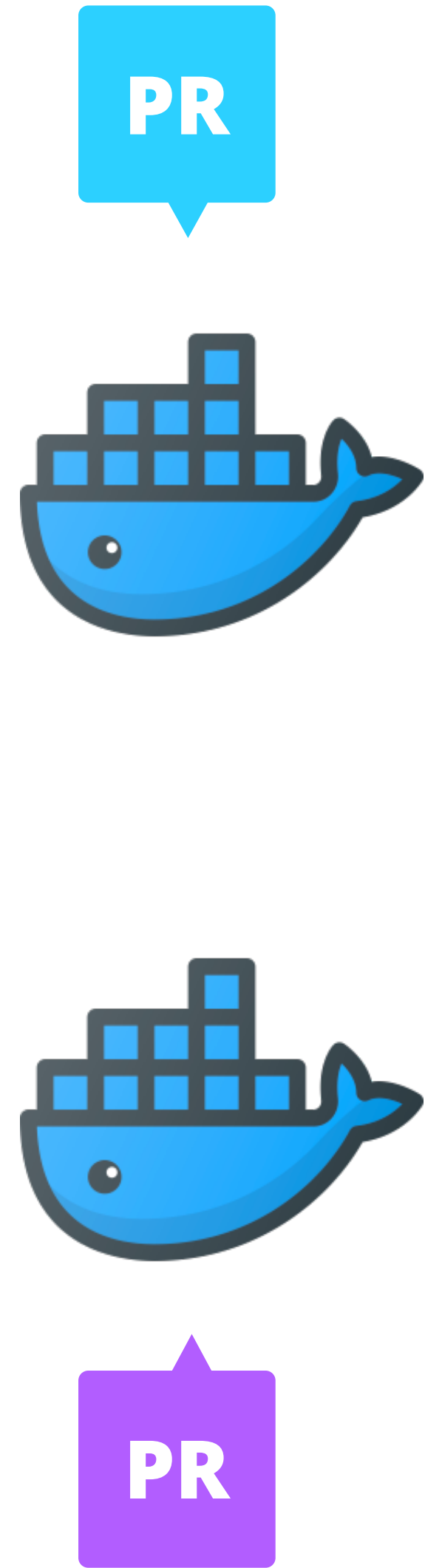
meu\_pr\_2.minhapp.net



meu\_pr\_1.minhapp.net

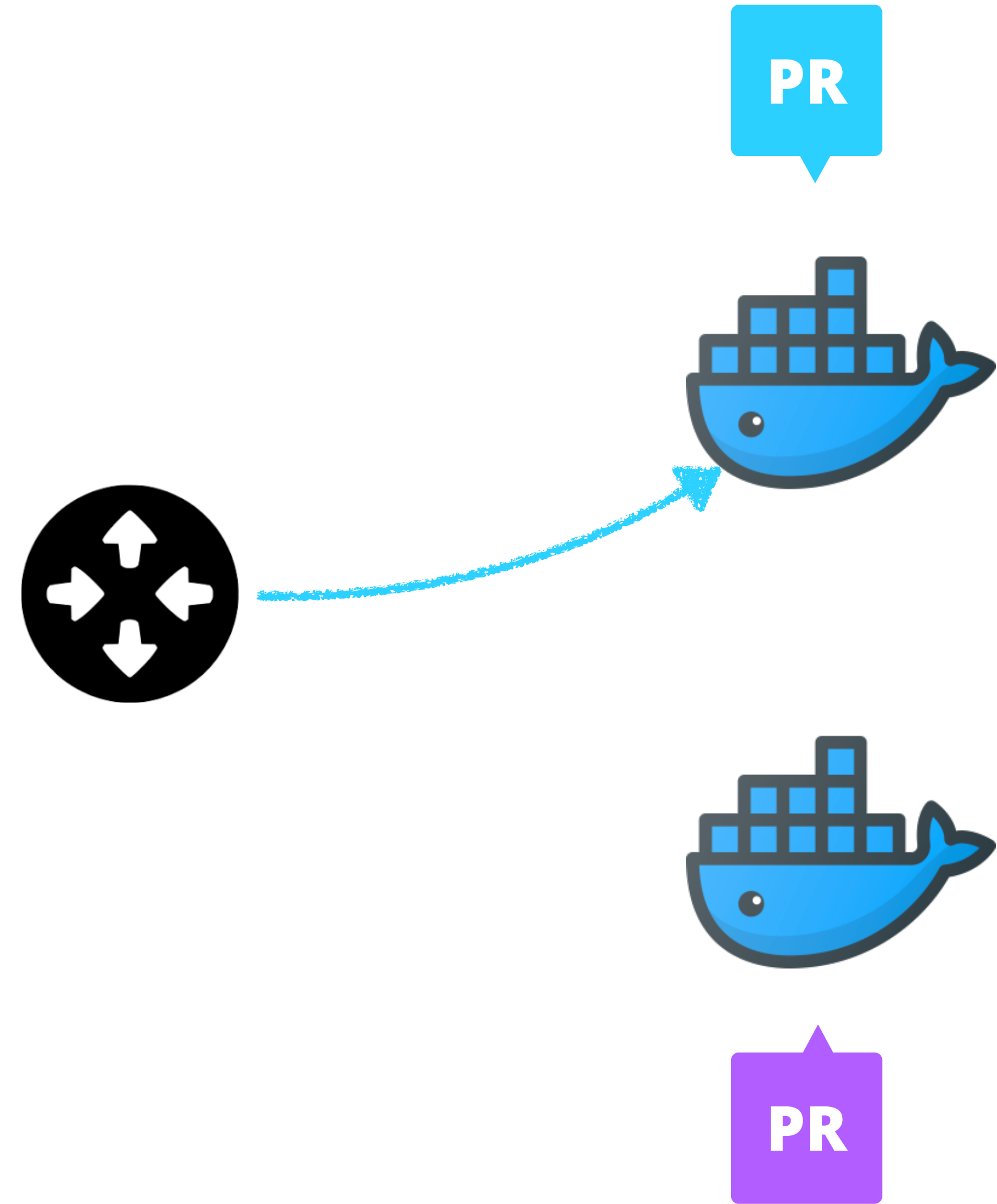


meu\_pr\_2.minhapp.net

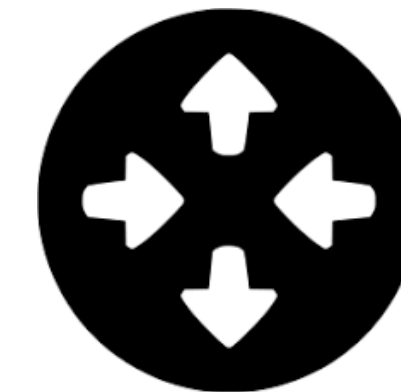


meu\_pr\_1.minhapp.net

meu\_pr\_2.minhapp.net



meu\_pr\_1.minhapp.net

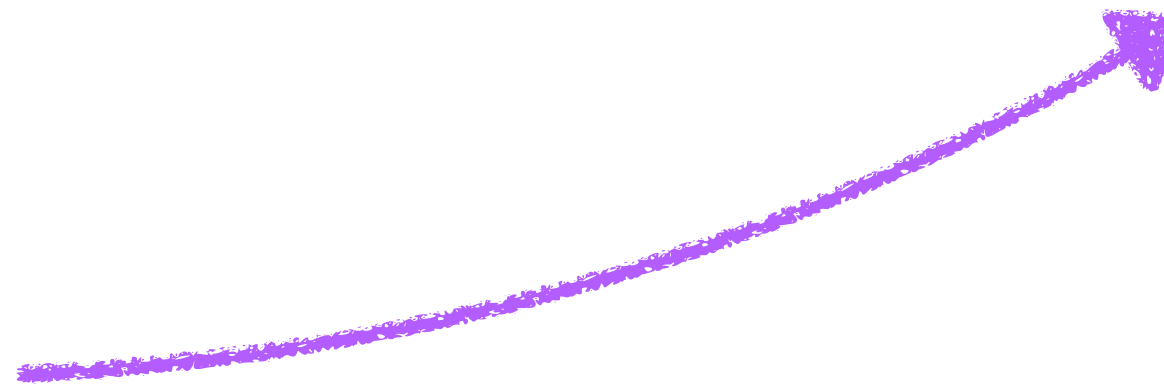
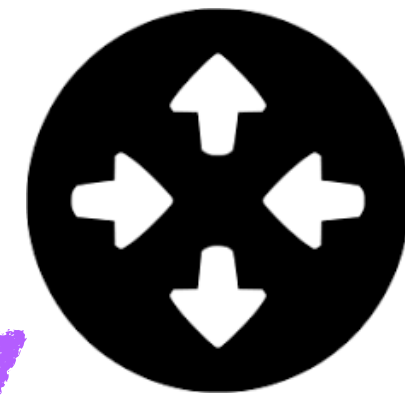


meu\_pr\_2.minhapp.net



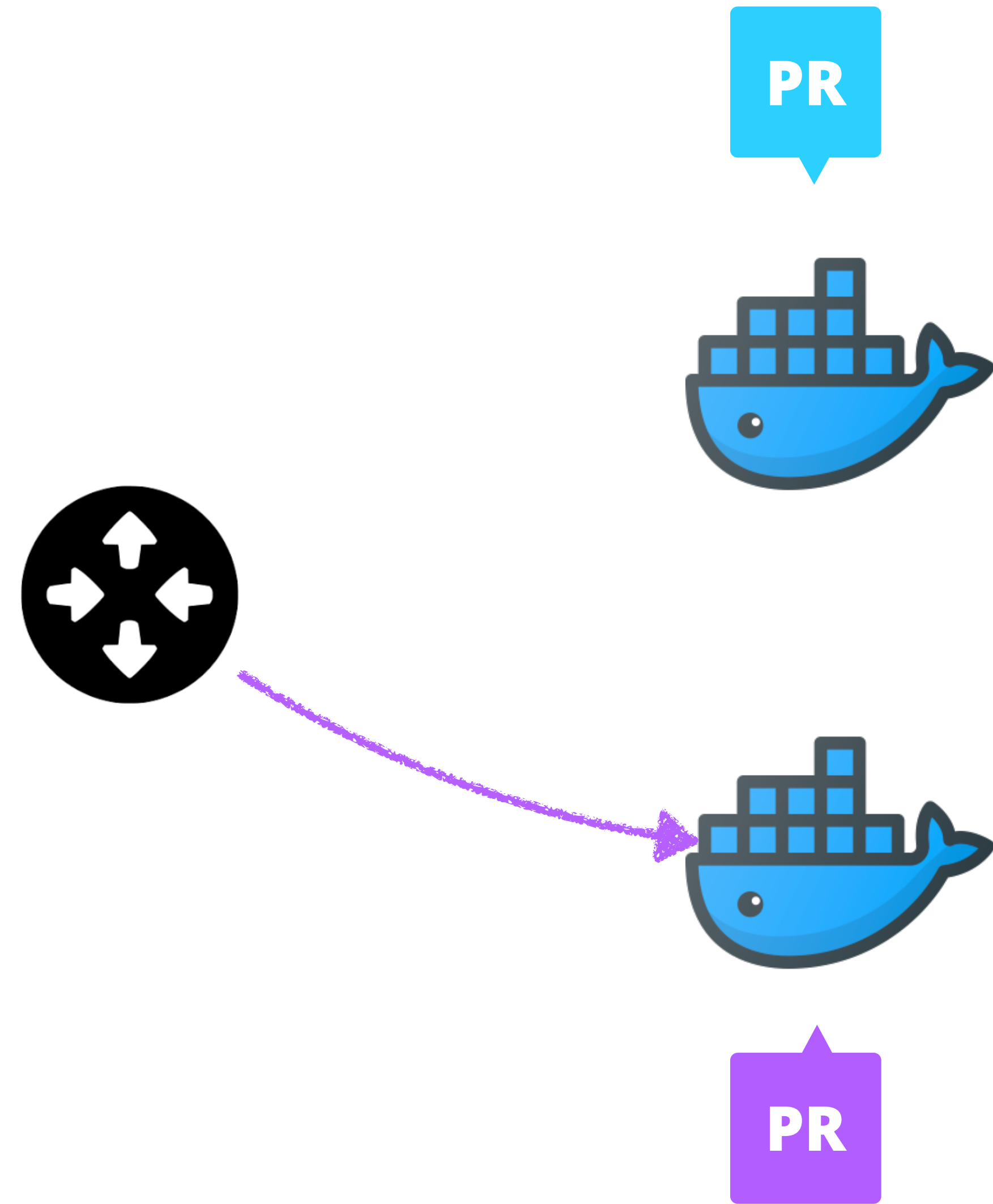
meu\_pr\_1.minhapp.net

meu\_pr\_2.minhapp.net



meu\_pr\_1.minhapp.net

meu\_pr\_2.minhapp.net







træfik

FROM THE INTERNET

TO YOUR INFRASTRUCTURE

API.DOMAIN.COM

DOMAIN.COM/WEB

BACKOFFICE.DOMAIN.COM



HTTPS



traefik

METRICS  
TRACING  
LOGS

AUTOMATIC & DYNAMIC  
ROUTING

AUTO DISCOVERY

API  
SERVER

KUBERNETES

WEB  
SERVER

MESOS

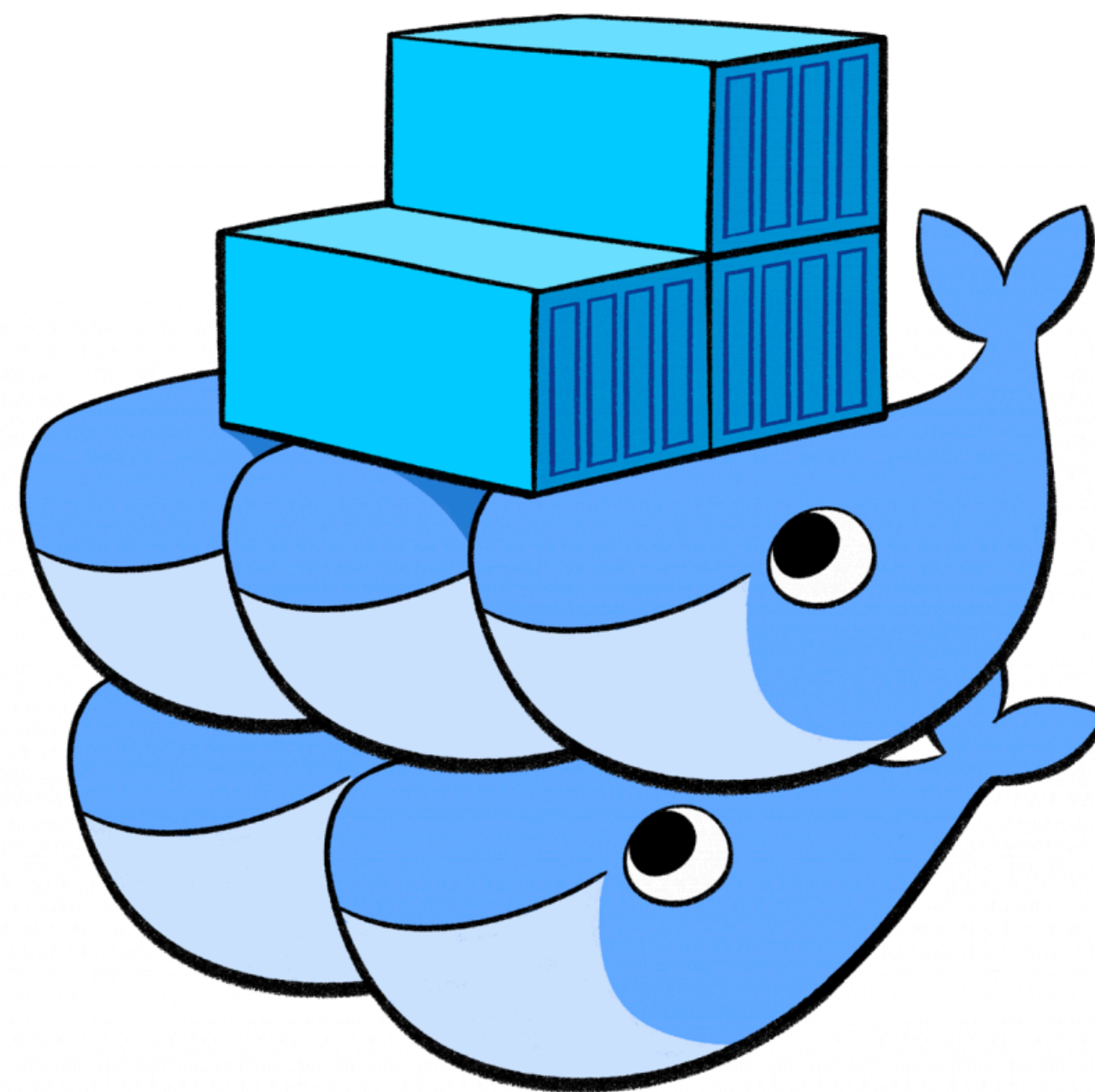
PRIVATE  
SERVER

BACKOFFICE  
SERVER - 1

BACKOFFICE  
SERVER - 2

DOCKER

LOAD  
BALANCING



**Docker Swarm**



**DOCKER SWARM**  
Manager  
192.168.10.1



**Worker 1**  
192.168.10.2



**Worker 2**  
192.168.10.3



**Worker 3**  
192.168.10.4



```
stage('Deploy to Staging') {  
  when {  
    expression { env.BRANCH_NAME == 'master' }  
  }  
  steps {  
  }  
}
```



```
stage('Deploy to Staging') {  
  when {  
    expression { env.BRANCH_NAME == 'master' }  
  }  
  steps {  
    - Criar o serviço no Docker Swarm com o banco  
  }  
}
```



```
stage('Deploy to Staging') {  
  when {  
    expression { env.BRANCH_NAME == 'master' }  
  }  
  steps {  
    - Criar o serviço no Docker Swarm com o Postgres  
    - Criar o serviço no Docker Swarm com o Redis  
  }  
}
```

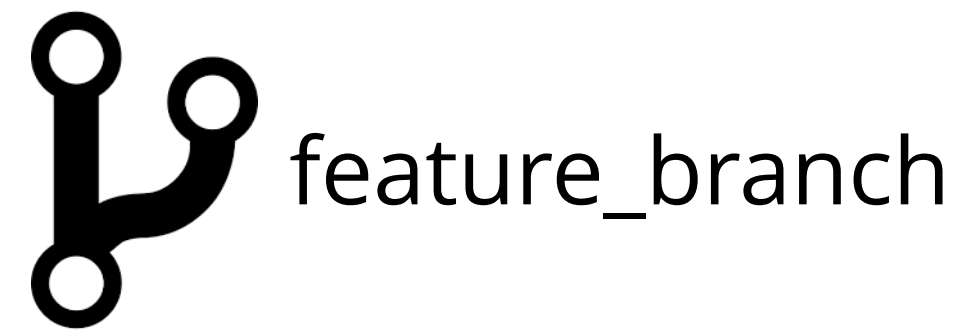


```
stage('Deploy to Staging') {  
  when {  
    expression { env.BRANCH_NAME == 'master' }  
  }  
  steps {  
    - Criar o serviço no Docker Swarm com o Postgres  
    - Criar o serviço no Docker Swarm com o Redis  
    - Criar o serviço no Docker Swarm com a  
      aplicação usando a imagem da etapa de Build  
  }  
}
```

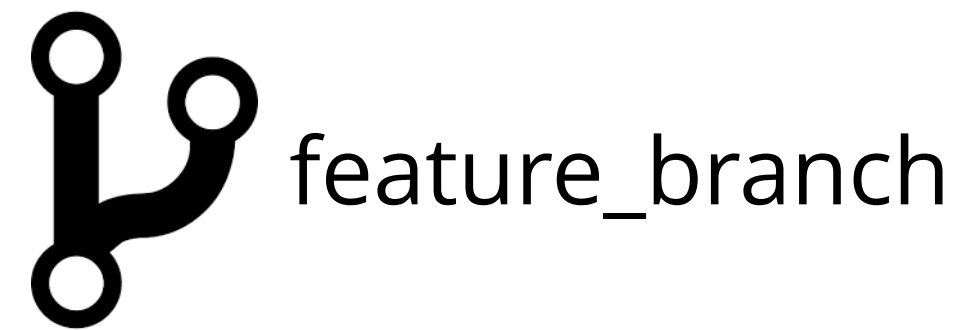


```
root@jenkins:~# docker service ls
```

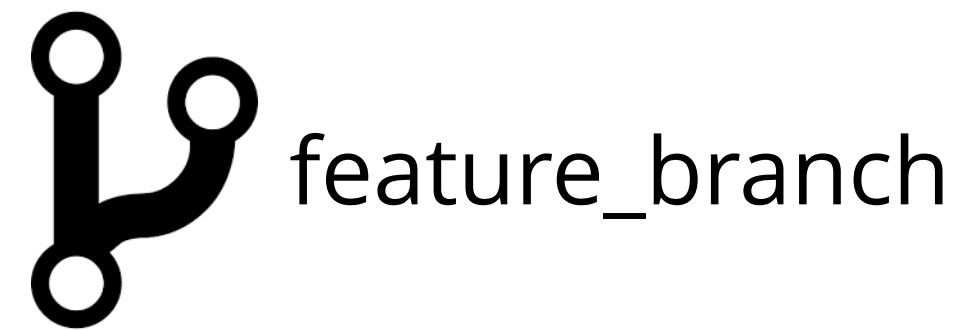
ID	NAME	MODE	REPLICAS	IMAGE	PORTS
7xkr6v1bj25o	staging	replicated	1/1	openjobs:latest	
805fc3yikyzn	staging-pg	replicated	1/1	postgres:latest	
liyz6ebgvi73	staging-redis	replicated	1/1	redis:latest	
jas4c2t4r757	traefik	replicated	1/1	traefik:1.5	*:80->80/tcp
p,	*:8081->8080/tcp				



```
stage('Create Environment') {  
  when {  
    expression { env.BRANCH_NAME != 'master' }  
  }  
  steps {  
  }  
}
```



```
stage('Create Environment') {  
  when {  
    expression { env.BRANCH_NAME != 'master' }  
  }  
  steps {  
    - Criar o serviço no Docker Swarm com o Postgres  
  }  
}
```



```
stage('Create Environment') {  
  when {  
    expression { env.BRANCH_NAME != 'master' }  
  }  
  steps {  
    - Criar o serviço no Docker Swarm com o Postgres  
    - Criar o serviço no Docker Swarm com o Redis  
  }  
}
```



```
stage('Create Environment') {  
  when {  
    expression { env.BRANCH_NAME != 'master' }  
  }  
  steps {  
    - Criar o serviço no Docker Swarm com o Postgres  
    - Criar o serviço no Docker Swarm com o Redis  
    - Criar o serviço no Docker Swarm com a aplicação  
      usando a imagem da etapa de Build  
  }  
}
```

```
root@jenkins:~# docker service ls
```

ID	NAME	MODE	REPLICAS	IMAGE	PORTS
tfhqjglztbrq	PR-2	replicated	1/1	openjobs:latest	
lk8zzxp2lrpo	PR-2-pg	replicated	1/1	postgres:latest	
liccvysoocy8	PR-2-redis	replicated	1/1	redis:latest	
7xkr6v1bj25o	staging	replicated	1/1	openjobs:latest	
805fc3yikyzn	staging-pg	replicated	1/1	postgres:latest	
liyz6ebgvi73	staging-redis	replicated	1/1	redis:latest	
jas4c2t4r757	traefik	replicated	1/1	traefik:1.5	*:80->80/tcp
p,	*:8081->8080/tcp				

DEMO



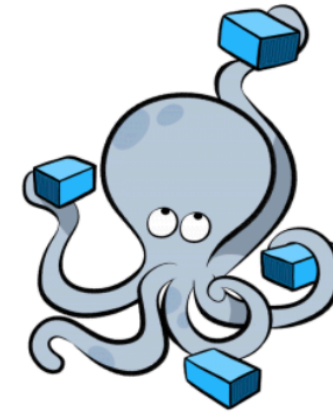
Desculpe, nenhuma vaga disponível 😞





Desculpe, nenhuma vaga disponível 😞

<https://bit.ly/post-ambientes-docker>



## Creating review apps per pull requests

TUESDAY, JULY 04, 2017 - 16 MINS

DOCKER CI

In this post I will show a simple example about how to create apps for each pull request (or, creating your own Gitlab/Heroku Review App).

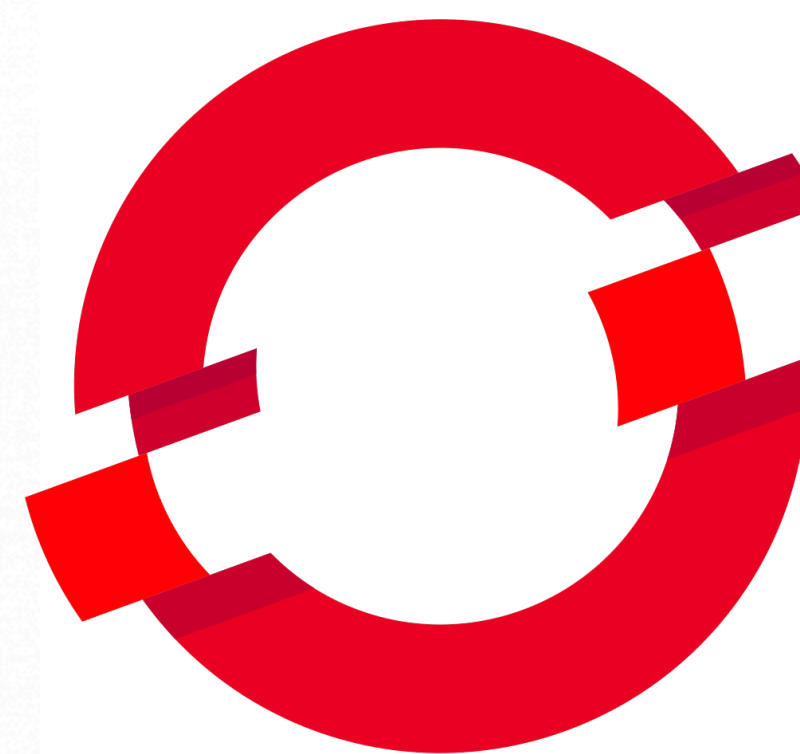
Let's imagine the following scenario of a development team:

- Developer creates a new feature branch.
- Developer pushes the branch
- Developer opens a pull request so other developers can check his code and test the feature
- CI runs the tests and makes the branch green if it passes





**kubernetes**



**OPENSIFT**

```
kind: Deployment
apiVersion: extensions/v1beta1
metadata:
  name: nginx-deployment
spec:
  # A deployment's specification really only
  # has a few useful options

  # 1. How many copies of each pod do we want?
  replicas: 3

  # 2. How do want to update the pods?
  strategy: Recreate

  # 3. Which pods are managed by this deployment?
  selector:
    # This must match the labels we set on the pod!
    matchLabels:
      deploy: example

  # This template field is a regular pod configuration
  # nested inside the deployment spec
  template:
    metadata:
      # Set labels on the pod.
      # This is used in the deployment selector.
      labels:
        deploy: example
    spec:
      containers:
        - name: nginx
          image: nginx:1.7.9
```

REVIEW APPS

heroku-flow-demo-staging-pr-14  
#14 Update test.js  
2d166a98 Deployed 3 hours ago

heroku-flow-demo-staging-pr-3  
#3 Refactor app logic  
62d63cc Deployed 8 hours ago

#2 Update tachyons to 4.7.0  
Create Review App

#1 Modify theme  
Create Review App

STAGING + Add app

heroku-flow-demo-staging  
Auto deploys master  
5f4b650d Deployed 2 days ago  
Promote to production...

PRODUCTION + Add app

heroku-flow-demo-prod  
d09f377c Deployed 4 days ago



New environment

Environment	Last Deployment	Commit	
staging	#41335	master -> 586b44ec Update MR2 link	7 days ago
production	#41278	master -> 73e3ca53 Fix nginx path	7 days ago
▶ testing 27			
▼ review 4			
add-information-about-example	#41287	add-information-a... -> c8fd6fee Add information about example	7 days ago
hello-world	#41287	add-information-a... -> c8fd6fee Add information about example	7 days ago
12397-implement-feature1	#41287	add-information-a... -> c8fd6fee Add information about example	7 days ago
lets-get-some-line-length	#41287	add-information-a... -> c8fd6fee Add information about example	7 days ago



<http://bit.ly/ambientes-docker>

bora beber!!!!





# LOONEY TUNES



*"That's all Folks!"*