

Pare de Apertar Parafuso
e vá além do Xcode

Your name

Head de Mobile no Peixe Urbano / Groupon Latam

- Father of 3 and husband
- Problem solver, Developer & Designer
- I build iOS and Mac applications since ~1994 😊
- Maker, Speaker, Software crafter & Musician

 @DanielBonates

 @bonates

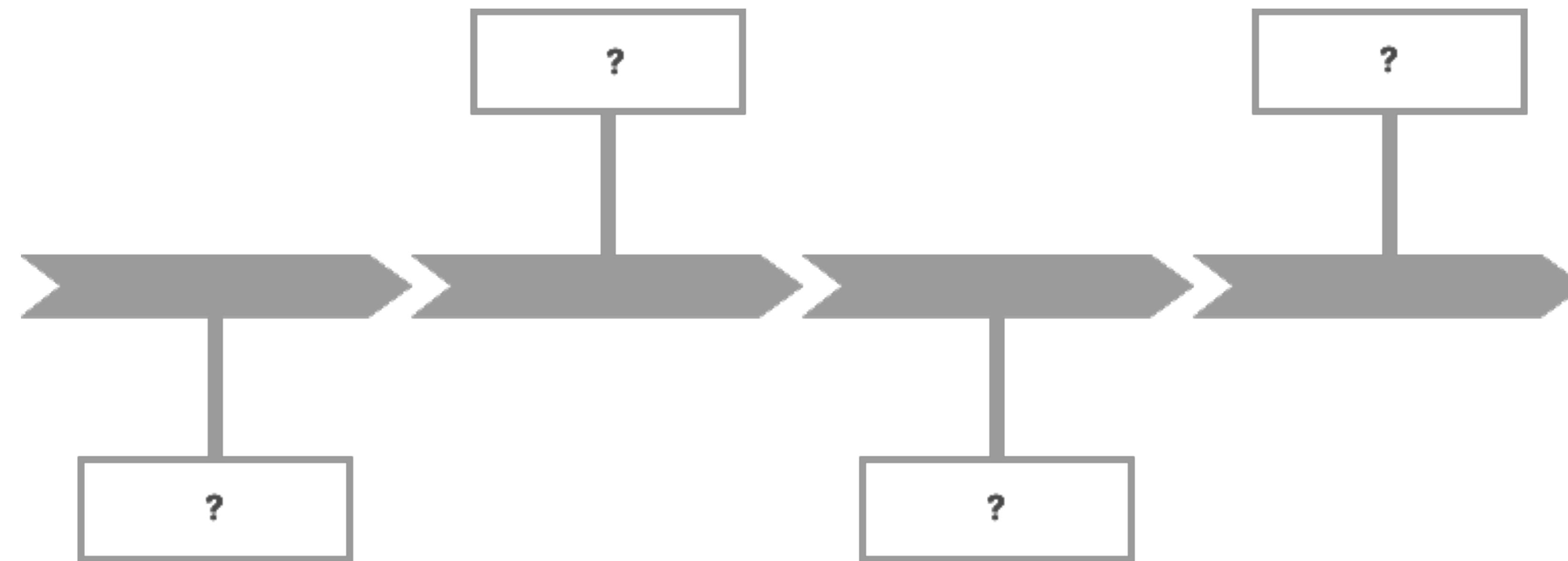
 @dbonates



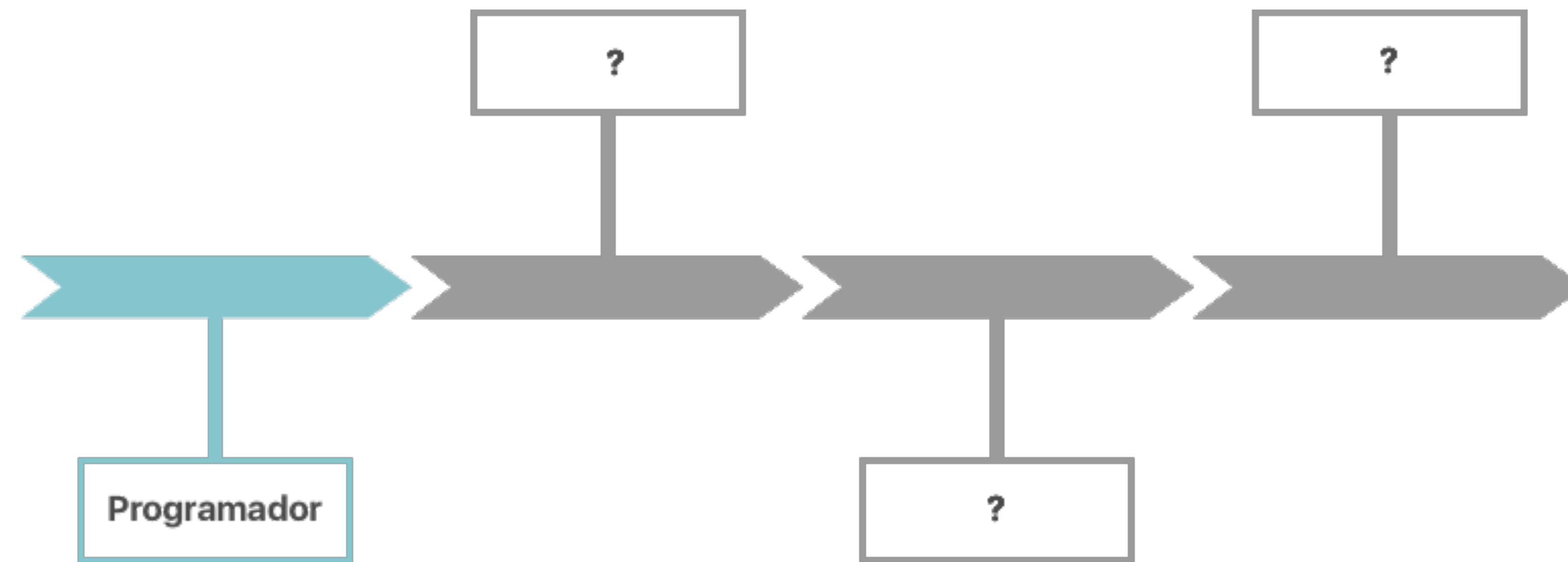
Parte 1

The last talk

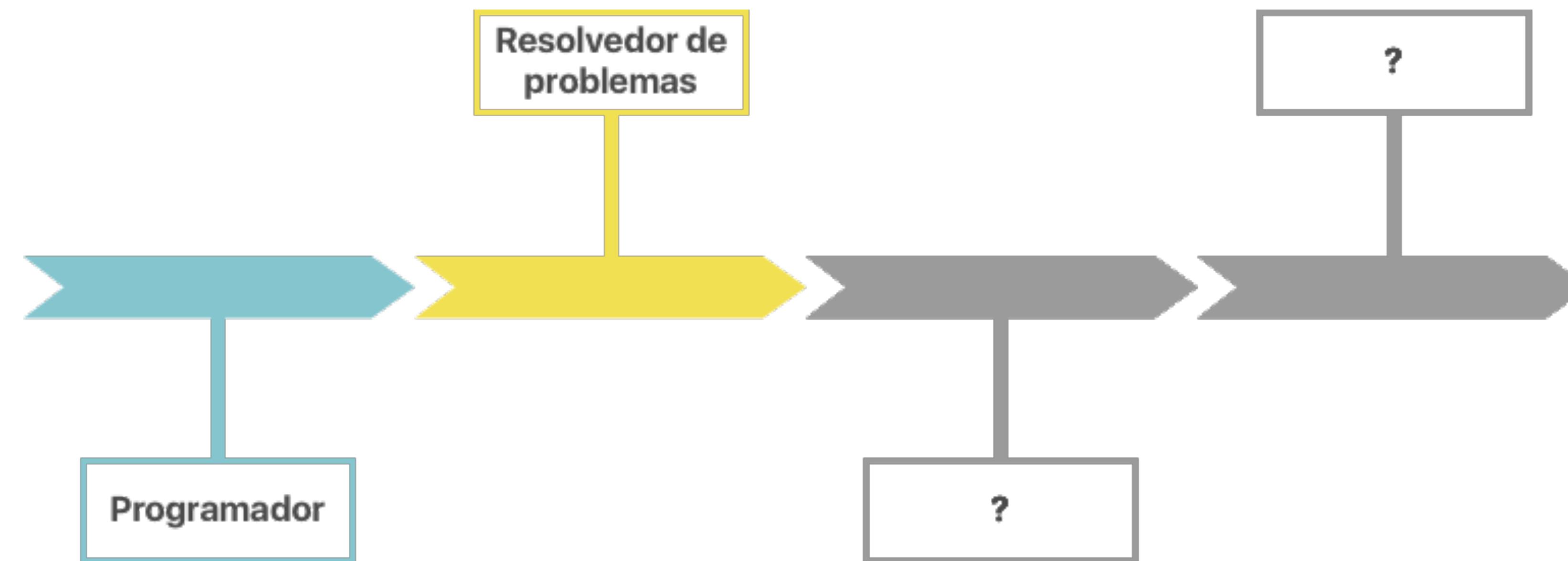
Fases da vida dev



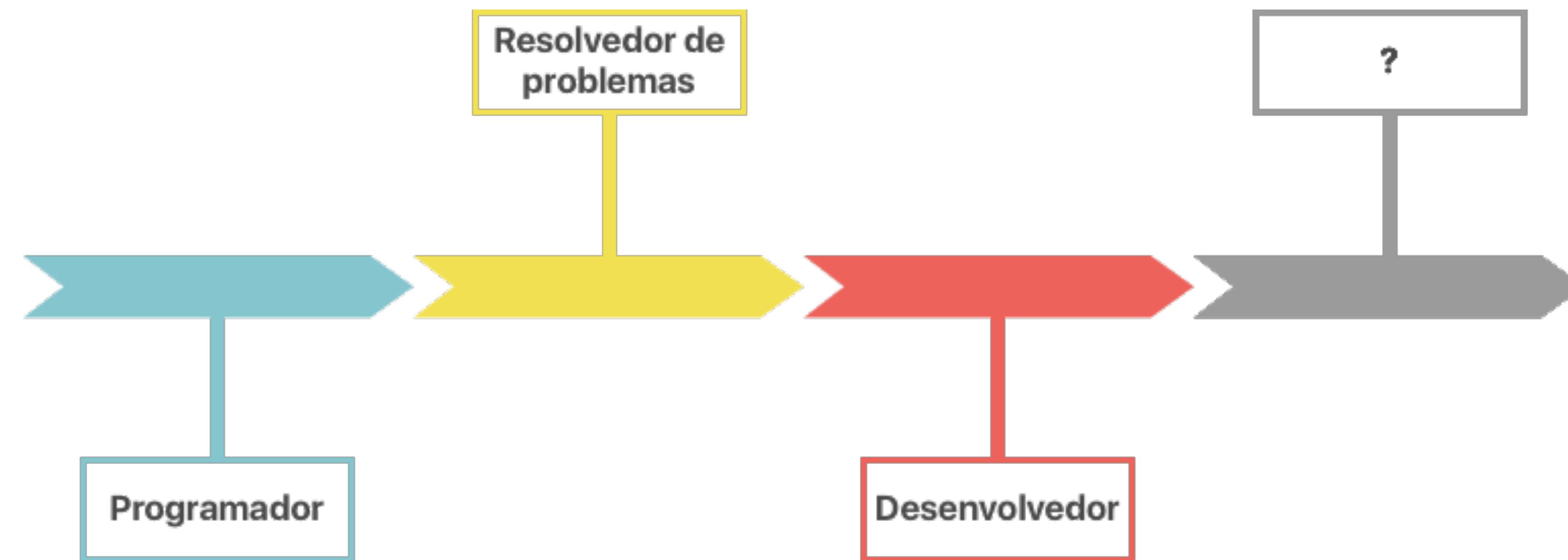
Fases da vida dev



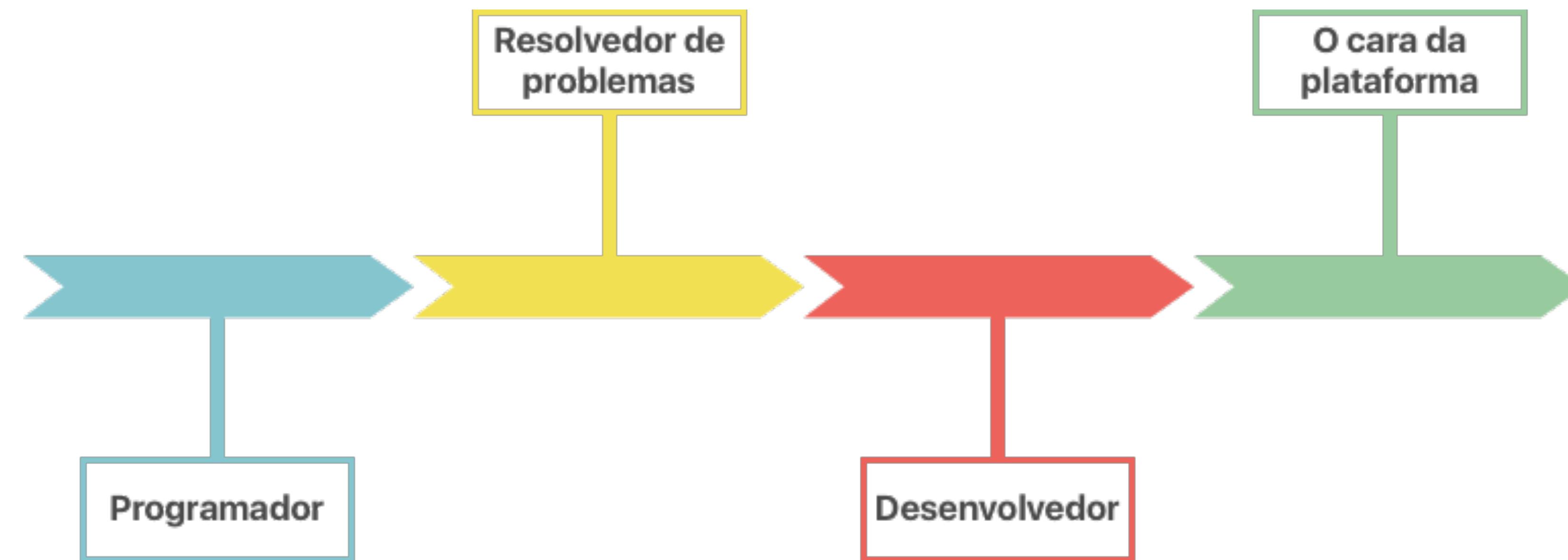
Fases da vida dev



Fases da vida dev



Fases da vida dev



Os 3 Clientes

- ✓ Usuário
- ✓ Owner
- ✓ Developers

Os 3 vão determinar o resultado!

Parte 2

Era tudo mato



Na verdade, pantano! _(ツ)_/

Desafios



- ✓ Código legado
- ✓ Implementar arquiteturas
- ✓ Modularização

Manter o roadmap e a evolução do app!

Parte 3

A era da provação 🔥

Desafios



- ✓ Código legado
- ✓ Implementar arquiteturas
- ✓ Modularização
- ✓ Manter o roadmap e a evolução do app!

Desafio +



Groupon

Desafio ++



Groupon

Latam - 5 países

Desafio +++

Groupon

Latam - 5 países



.peixe pay

Challenge accepted



Challenge accepted



Challenge accepted 🤜



And we did it! 🏆

Parte 4

Demos e casos reais

Como resolver problemas com seu app,
rapidamente e sem passar pelo Xcode

Desafio 1 - backend

O app não responde,
loading eterno

Desafio 1 - backend

O app não responde,
loading eterno



Charles Proxy

<https://www.charlesproxy.com>

Charles Proxy

Checando endpoint



Charles Proxy

Checando endpoint



**“Charles” Would Like to Add
VPN Configurations**

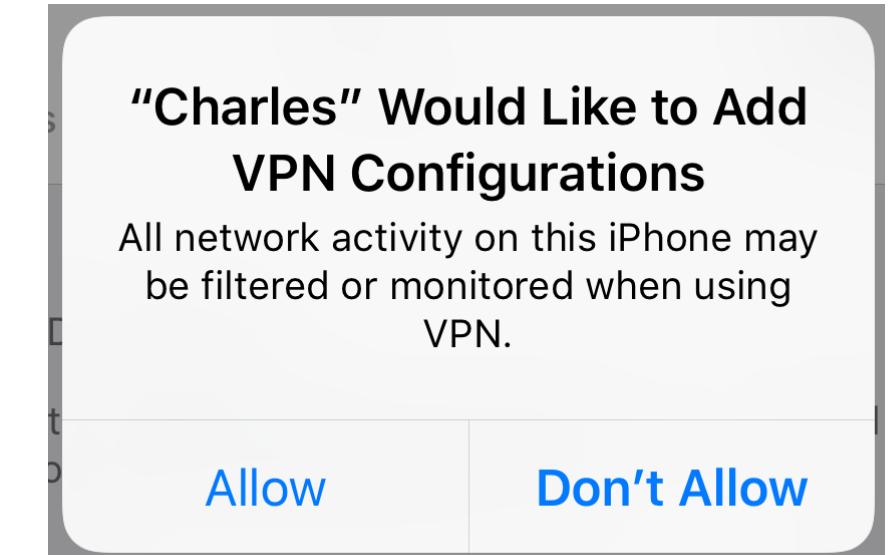
All network activity on this iPhone may
be filtered or monitored when using
VPN.

Allow

Don't Allow

Charles Proxy

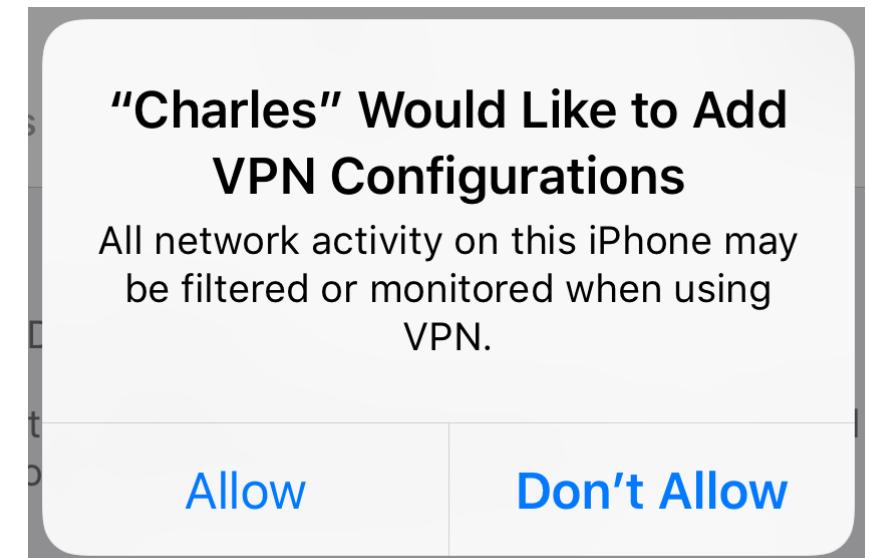
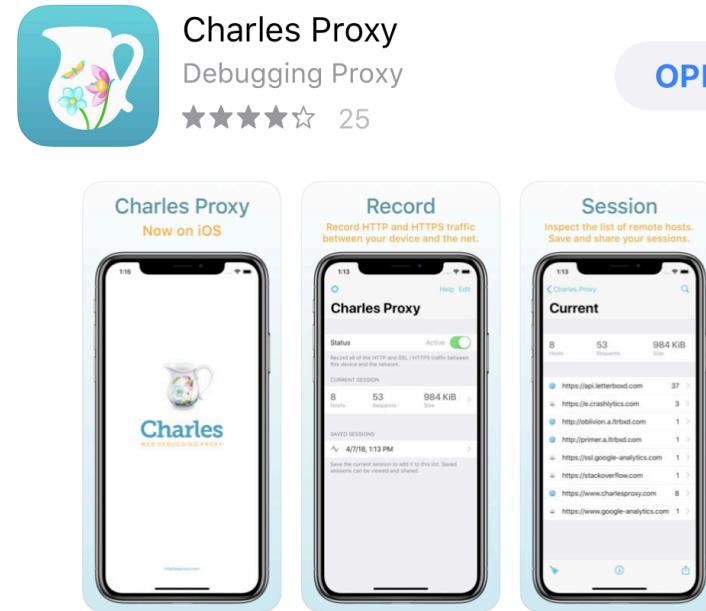
Checando endpoint



The image shows the Charles Proxy application running on an iPhone. At the top, there is a gear icon, 'Help' and 'Edit' links, and the title 'Charles Proxy'. Below this is a 'Status' section with a green 'Active' toggle switch. A descriptive text box explains that it records all HTTP and SSL/HTTPS traffic between the device and the network. Under the 'CURRENT SESSION' section, it shows 1 Host, 1 Request, and a size limit of 20 KiB, with a right-pointing arrow. The 'SAVED SESSIONS' section is currently empty, stating that users can save the current session to add it here. The background of the app has a light gray gradient.

Charles Proxy

Checando endpoint



The Charles Proxy application window. At the top, there are 'Help' and 'Edit' buttons. Below that is the title 'Charles Proxy'. On the left, a 'Status' section shows 'Active' with a green toggle switch. A note says 'Record all of the HTTP and SSL / HTTPS traffic between this device and the network.' In the center, under 'CURRENT SESSION', it shows '1 Host', '1 Request', and '20 KiB Size'. At the bottom, a 'SAVED SESSIONS' section says 'Save the current session to add it to this list. Saved sessions can be viewed and shared.'

SSL Proxying

Enabled

Include [0 >](#)

Exclude [0 >](#)

Add host names to the Include list to enable SSL Proxying for those hosts.

The Exclude list excludes host names matched by the Include list; such as if you've used a wildcard in Include and need to exclude specific hosts matched by that wildcard.

You may need to force-close and re-open an app in order for its requests to be visible after changing SSL Proxying settings.

CA CERTIFICATE

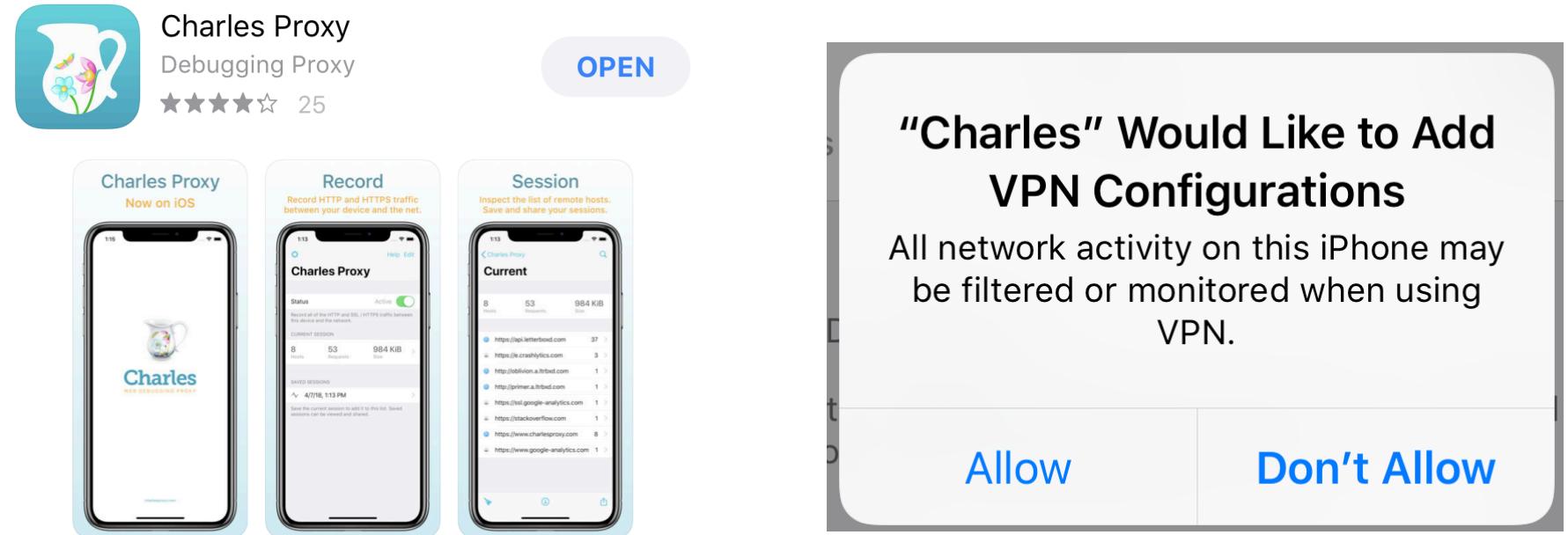
Certificate Status Not trusted

[Install SSL Certificate](#)

Charles Proxy

Checando endpoint

The Charles Proxy mobile application interface. At the top, there's a navigation bar with a gear icon, "Help", and "Edit". Below it is the main title "Charles Proxy". A "Status" section shows "Active" with a green toggle switch. A note says "Record all of the HTTP and SSL / HTTPS traffic between this device and the network." Under "CURRENT SESSION", it shows 1 Host, 1 Request, and a total size of 20 KiB. A "Size" button with a right arrow indicates more details. At the bottom, a "SAVED SESSIONS" section allows saving the current session.



Response Body

```
{  
    "total": 16695,  
    "searchDetails": {  
        "searchParameters": {}  
    },  
    "results": [  
        {  
            "title": "Colchester Half Maratho  
n",  
            "slug": "colchester-half-marathon  
",  
            "eventUrl": "https://www.colchest  
erhalfmarathon.co.uk/",  
            "id": 17829,  
            "description": "<p>The Griffin Ch  
apman Colchester Half Marathon has become  
established as one of the biggest and bes  
t races in the region. Organised by a gro  
up of volunteers from Colchester Colne Ro  
und Table, alongside some dedicated indiv  
iduals from the Colchester community, th  
e team that bring you the race work throu  
ghout the year to ensure you have a great
```

SSL Proxying

Enabled



Include

0 >

Exclude

0 >

Add host names to the Include list to enable SSL Proxying for those hosts.

The Exclude list excludes host names matched by the Include list; such as if you've used a wildcard in Include and need to exclude specific hosts matched by that wildcard.

You may need to force-close and re-open an app in order for its requests to be visible after changing SSL Proxying settings.

CA CERTIFICATE

Certificate Status

Not trusted

[Install SSL Certificate](#)

Desafio 2 - backend

**Testar variações de
resposta em um
endpoint.**

Desafio 2 - backend

**Testar variações de
resposta em um
endpoint.**



Charles Proxy

<https://www.charlesproxy.com>

Charles Proxy

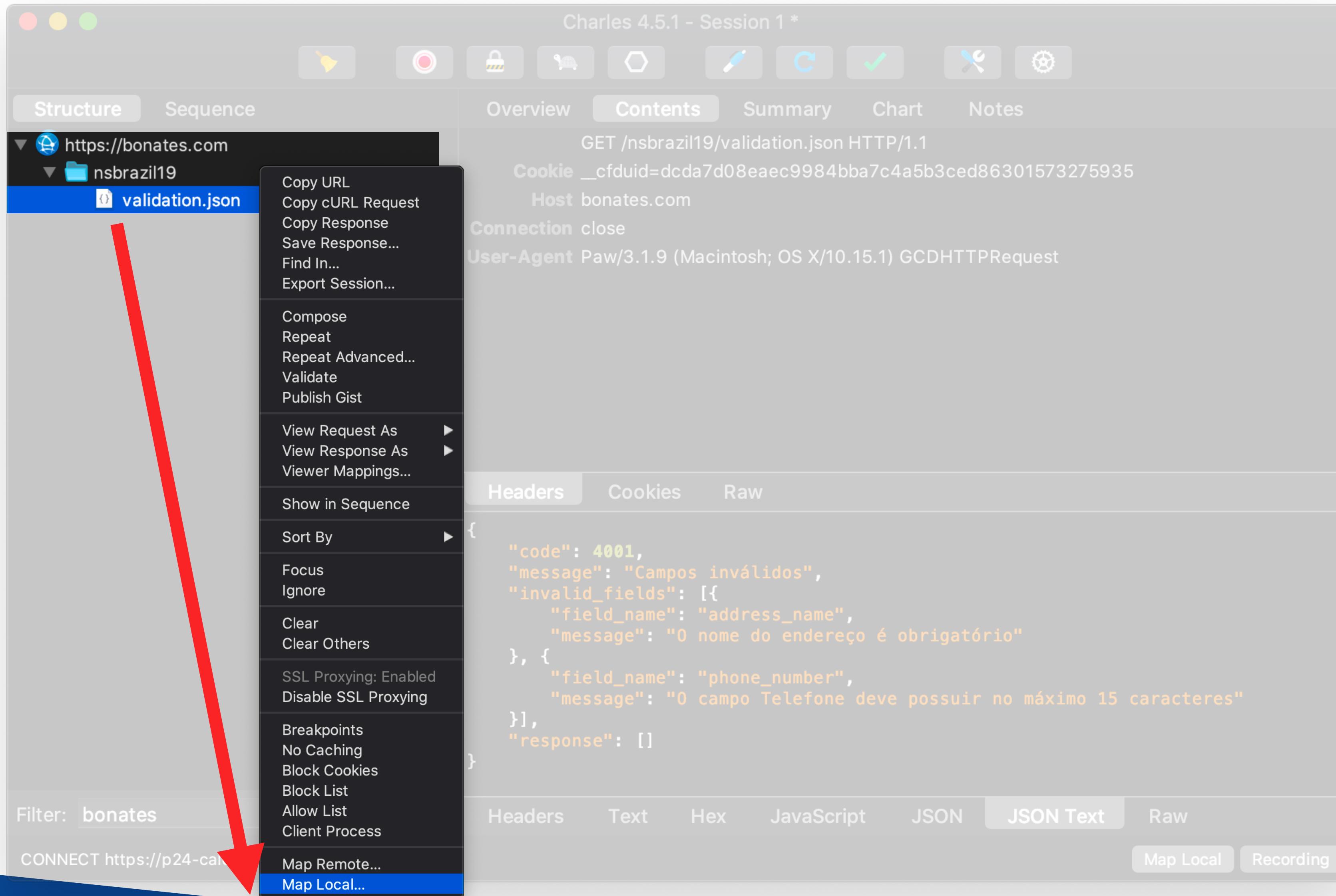
Mapear endpoint para um arquivo local

The screenshot shows the Charles 4.5.1 interface with a session named "Session 1". In the left sidebar, under "Structure", there is a tree view with "https://bonates.com" expanded, showing "nsbrazil19" and "validation.json". The "validation.json" item is selected and highlighted with a blue background. The main pane displays the details of this request: "GET /nsbrazil19/validation.json HTTP/1.1", "Cookie" with the value "_cfduid=dcda7d08eaec9984bba7c4a5b3ced86301573275935", "Host" set to "bonates.com", "Connection" set to "close", and "User-Agent" set to "Paw/3.1.9 (Macintosh; OS X/10.15.1) GCDHTTPRequest". Below these details, the "JSON Text" tab is selected, showing the following JSON response:

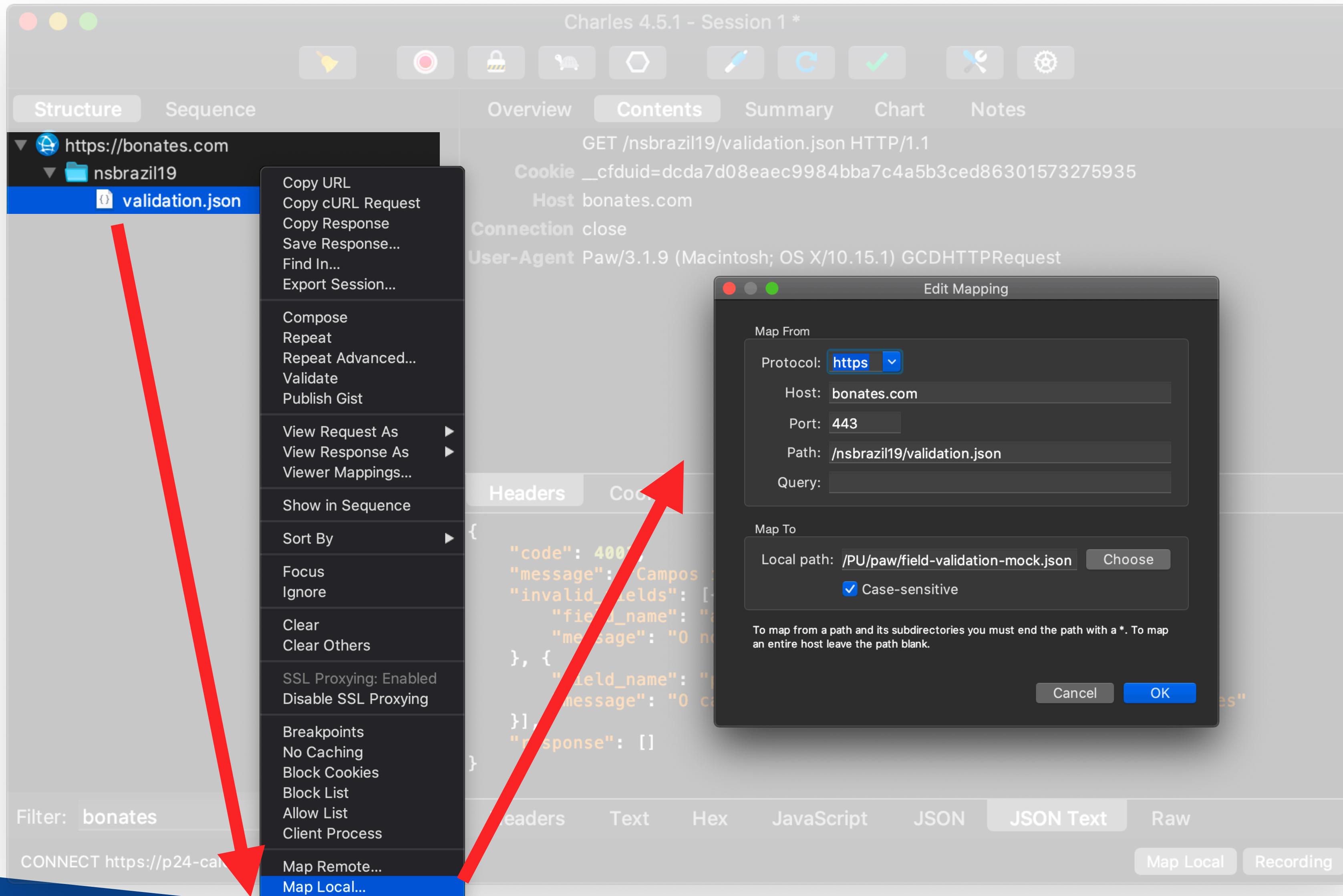
```
{  
    "code": 4001,  
    "message": "Campos inválidos",  
    "invalid_fields": [  
        {"field_name": "address_name",  
         "message": "O nome do endereço é obrigatório"},  
        {"field_name": "phone_number",  
         "message": "O campo Telefone deve possuir no máximo 15 caracteres"}],  
    "response": []}
```

At the bottom of the Charles window, there is a "Filter" bar containing the text "bonates", and several tabs for viewing the request: Headers, Text, Hex, JavaScript, JSON, JSON Text (which is active), and Raw.

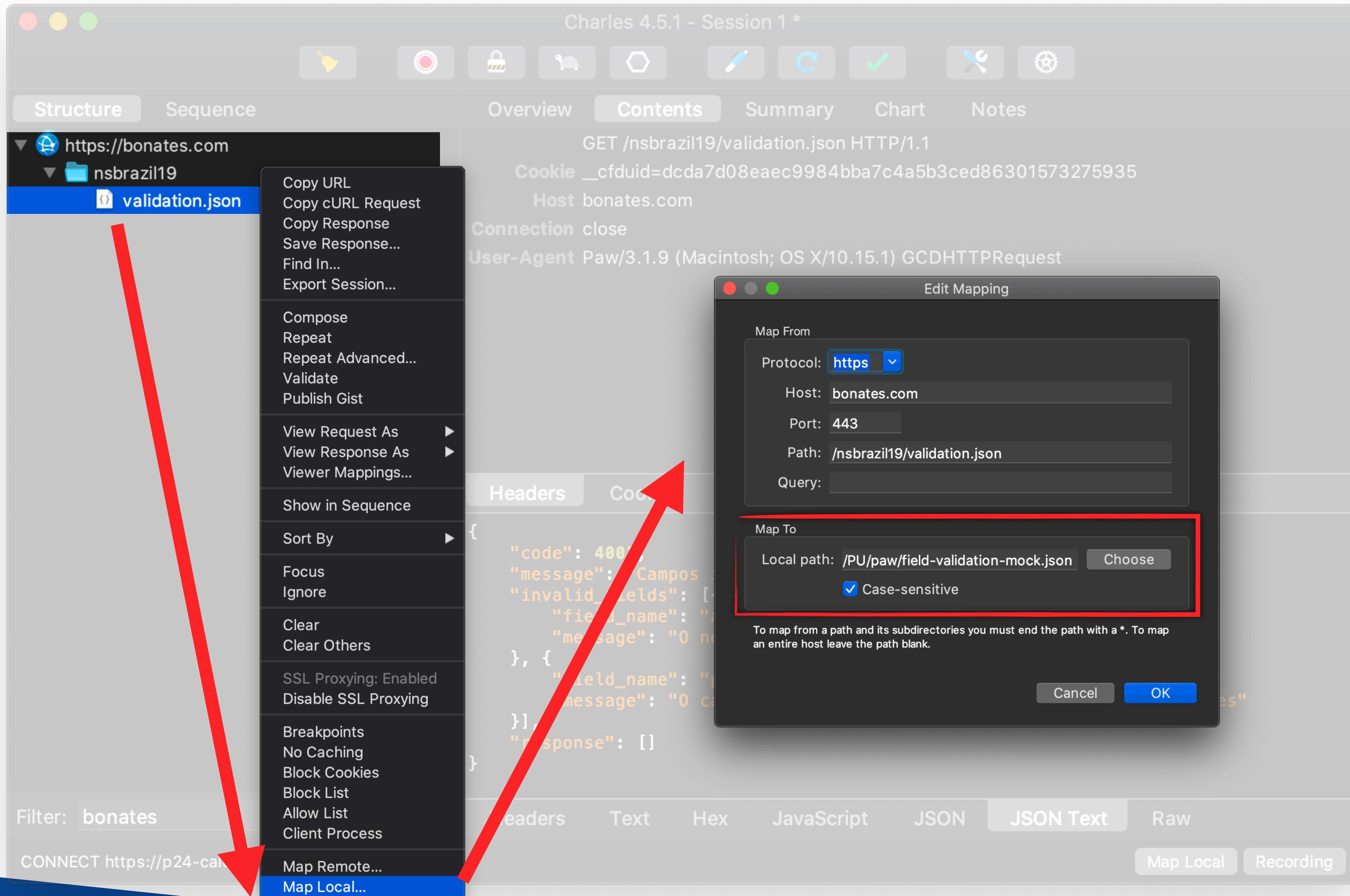
Charles Proxy Mapear endpoint para um arquivo local



Charles Proxy Mapear endpoint para um arquivo local



Charles Proxy Mapear endpoint para um arquivo local



Desafio 3 - API

**Selecionar Produtos na
tabBar não retorna
nenhuma oferta**

Desafio 3 - API

**Selecionar Produtos na
tabBar não retorna
nenhuma oferta**



Paw

<https://paw.cloud>

Paw Investigando resposta da API

The screenshot shows the Paw application interface with two main panels. The left panel displays a session named "nsbrazil19-exemple" containing two requests: "Deals Listing" (GET /nsbrazil19/deals.json) and "Field Validation" (GET /nsbrazil19/validation.json). The "Deals Listing" request is currently selected. The right panel shows the response for the "Deals Listing" request, which is a JSON object representing a deal listing. The response includes fields such as "code" (200), "response" (containing "deals" which is an array of deal objects), and "min_sale_price" (14.9). The JSON text is displayed in a code editor-like format with line numbers. At the bottom of the right panel, there is a "Key Path" input field with the placeholder "e.g. users[42].first_name".

```
1 {
2   "code": 200,
3   "response": {
4     "deals": [
5       {
6         "deal_id": "5dbc9163e4b07ac80c178ed8",
7         "deal_type": "Local",
8         "page_id": "salvador",
9         "short_title": "1 ou 2 Ingressos Day Use para Adulto ou Crian\u00e7a",
10        "images": [
11          {
12            "thumb": "https://img.stpu.com.br/?img=https://s3.amazonaws.com/pu-mgr/default/a0RG000000jZJmoMAG/5dc01ce2e4b07ac80c446048.jpg&w=128&h=82"
13          }
14        ],
15        "min_sale_price": 14.9,
16        "dealImage": "",
17        "dealOriginalImage": ""
18      },
19      {
20        "deal_id": "5d653934e4b07e6da1c40c44",
21        "deal_type": "Local",
22        "page_id": "salvador",
23        "short_title": "Carnaval 2020 no Camarote Planeta Band Othon",
24        "images": [
25          {
26            "thumb": "https://img.stpu.com.br/?img=https://s3.amazonaws.com/pu-mgr/default/a0RG000000jbs14MAA/5d653c82e4b07e6da1cb78ec.jpg&w=128&h=82"
27          }
28        ],
29        "min_sale_price": 340.0,
30        "dealImage": "",
31        "dealOriginalImage": ""
32      },
33      {
34        "deal_id": "5af9d0d9e4b091444e6f05d0",
35        "deal_type": "Local",
36        "page_id": "salvador",
37        "short_title": "Ingresso para o Cinema com op\u00e7\u00e3o para Todos os"
38      }
39    ]
40  }
41 }
```

Key Path e.g. users[42].first_name

Paw Investigando resposta da API

The screenshot shows the Paw application interface with two main panels. The left panel displays a session titled "Deals Listing" with a GET request to "https://bonates.com/nsbrazil19/deals.json". The right panel shows the response to a "Sent Field Validation" request with status code 200 OK. The response body is a JSON object containing deals information.

Request (Left Panel):

```
GET /nsbrazil19/deals.json
```

Response (Right Panel):

```
200 OK
1.34 s
```

```
{
  "code": 200,
  "response": {
    "deals": [
      {
        "deal_id": "5dbc9163e4b07ac80c178ed8",
        "deal_type": "Local",
        "page_id": "salvador",
        "short_title": "1 ou 2 Ingressos Day Use para Adulto ou Crian\u00e7a",
        "images": [
          {
            "thumb": "https://img.stpu.com.br/?img=https://s3.amazonaws.com/pu-mgr/default/a0RG000000jZJmoMAG/5dc01ce2e4b07ac80c446048.jpg&w=128&h=82"
          }
        ],
        "min_sale_price": 14.9,
        "dealImage": "",
        "dealOriginalImage": ""
      },
      {
        "deal_id": "5d653934e4b07e6da1c40c44",
        "deal_type": "Local",
        "page_id": "salvador",
        "short_title": "Carnaval 2020 no Camarote Planeta Band Othon",
        "images": [
          {
            "thumb": "https://img.stpu.com.br/?img=https://s3.amazonaws.com/pu-mgr/default/a0RG000000jbs14MAA/5d653c82e4b07e6da1cb78ec.jpg&w=128&h=82"
          }
        ],
        "min_sale_price": 340.0,
        "dealImage": "",
        "dealOriginalImage": ""
      },
      {
        "deal_id": "5af9d0d9e4b091444e6f05d0",
        "deal_type": "Local",
        "page_id": "salvador",
        "short_title": "Ingresso para o Cinema com op\u00e7\u00e3o para Todos os"
      }
    ]
  }
}
```

Key Path e.g. users[42].first_name

Paw Investigando resposta da API

The screenshot shows the Paw application interface with two main panels. The left panel displays a session named 'nsbrazil19-exemple' containing two requests: 'Deals Listing' (GET /nsbrazil19/deals.json) and 'Field Validation' (GET /nsbrazil19/validation.json). The 'Deals Listing' request is selected and expanded, showing its details and a JSON response. The right panel shows the raw JSON response for the 'Deals Listing' request, which includes deal information like IDs, types, and images. A red arrow points from the 'Key Path' input field at the bottom of the left panel to the 'Key Path' input field at the bottom of the right panel, both of which are highlighted with a red border.

Key Path response.deals.*.deal_type

```
1 {
2   "code": 200,
3   "response": {
4     "deals": [
5       {
6         "deal_id": "5dbc9163e4b07ac80c178ed8",
7         "deal_type": "Local",
8         "page_id": "salvador",
9         "short_title": "1 ou 2 Ingressos Day Use para Adulto ou Crian\u00e7a",
10        "images": [
11          {
12            "thumb": "https://img.stpu.com.br/?img=https://s3.amazonaws.com/pu-mgr/default/a0RG000000jZJmoMAG/5dc01ce2e4b07ac80c446048.jpg&w=128&h=82"
13          }
14        ],
15        "min_sale_price": 14.9,
16        "dealImage": "",
17        "dealOriginalImage": ""
18      },
19      {
20        "deal_id": "5d653934e4b07e6da1c40c44",
21        "deal_type": "Local",
22        "page_id": "salvador",
23        "short_title": "Carnaval 2020 no Camarote Planeta Band Othon",
24        "images": [
25          {
26            "thumb": "https://img.stpu.com.br/?img=https://s3.amazonaws.com/pu-mgr/default/a0RG000000jbs14MAA/5d653c82e4b07e6da1cb78ec.jpg&w=128&h=82"
27          }
28        ],
29        "min_sale_price": 340.0,
30        "dealImage": "",
31        "dealOriginalImage": ""
32      },
33      {
34        "deal_id": "5af9d0d9e4b091444e6f05d0",
35        "deal_type": "Local",
36        "page_id": "salvador",
37      }
38    ]
39  }
40 }
```

Key Path e.g. users[42].first_name

Paw Investigando resposta da API

The screenshot shows the Paw application interface. On the left, the sidebar lists sessions and environments. The 'Deals Listing' session is selected, showing a request to `https://bonates.com/nsbrazil19/deals.json`. The response is a JSON array of deals, all categorized as 'Local'. A red arrow points from the 'Key Path' input field at the bottom to the deal_type field in the JSON response. Another red arrow points from the JSON response area to the 'Key Path' input field.

Sent Field Validation
GET /nsbrazil19/validation.json 200 1.34 s

Deals Listing
GET /nsbrazil19/deals.json

Field Validation
GET /nsbrazil19/validation.json

Deals Listing

Request Description

Key Path response.deals.*.deal_type

Cookie: __cfduid=dcda7d08eaec9984bba7c4a5b3ced86301573275935
Host: bonates.com
Connection: close
User-Agent: Paw/3.1.9 (Macintosh; OS X/10.15.1) GCDHTTPRequest

200 OK

Headers JSON Text Raw

```
1 {  
2   "response": {  
3     "deals": [  
4       {  
5         "deal_type": "Local"  
6       },  
7       {  
8         "deal_type": "Local"  
9       },  
10      {  
11        "deal_type": "Local"  
12      },  
13      {  
14        "deal_type": "Local"  
15      },  
16      {  
17        "deal_type": "Local"  
18      },  
19      {  
20        "deal_type": "Local"  
21      },  
22      {  
23        "deal_type": "Local"  
24      },  
25      {  
26        "deal_type": "Local"  
27      },  
28      {  
29        "deal_type": "Local"  
30      },  
31      {  
32        "deal_type": "Local"  
33      }  
34    ]  
35  }  
36 }
```

Key Path e.g. users[42].first_name

Desafio 4 - Produto

Melhorando o report
com imagens

Desafio 4 - Produto

Melhorando o report
com imagens



<https://www.ffmpeg.org/>

brew install ffmpeg

FFMpeg

Fazendo mágica no tamanho dos videos



= 13MB

The screenshot shows the PeixePay mobile application. At the top, there's a notification bar with icons for signal strength, time (09:41), and battery level (12%). Below this is a user profile section with a circular icon containing a 'D', the name 'Olá, Daniel', and the location 'Florianópolis'. The main content area features a video thumbnail for 'GUACAMOLE Cocina Mexicana' showing a dish of Guacamole. Below the video is a blue button for 'peixe pay' with a saldo of 'R\$ 76,25'. Further down are four circular icons for 'Descontos' (discounts), 'Cashback', 'Fidelidade' (loyalty), and 'Usar Agora' (use now). The bottom section displays 'Lugares próximos a você' (Places near you) with two entries: 'Churrascaria 100Tenario' (Restaurant • \$\$\$) and 'O Açougueiro' (Restaurant • \$\$\$). A navigation bar at the very bottom includes icons for 'Início' (Home), 'Explorar' (Explore), 'Pagar' (Pay), 'Carteira' (Wallet), and 'Conta' (Account).

FFMpeg

Fazendo mágica no tamanho dos videos

🔗 link para o script no GitHub

```
# Compress video files while keep their quality
# Usage: compress video_file
# requires: ffmpeg
# tip: put this function on your ~/.profile file
compress() {
    sourcefile=$(basename "$1")
    filename="${sourcefile%.*}"
    ffmpeg -i ${sourcefile} -c:v libx264 -crf 24 -b:v 1M -c:a aac -strict -2 "${filename}"_compressed.mp4
}
```

FFMpeg

Fazendo mágica no tamanho dos videos

🔗 link para o script no GitHub

```
# Compress video files while keep their quality
# Usage: compress video_file
# requires: ffmpeg
# tip: put this function on your ~/.profile file
compress() {
    sourcefile=$(basename "$1")
    filename="${sourcefile%.*}"
    ffmpeg -i ${sourcefile} -c:v libx264 -crf 24 -b:v 1M -c:a aac -strict -2 "${filename}"_compressed.mp4
}
```

13MB

ppay-scan-demo.mov

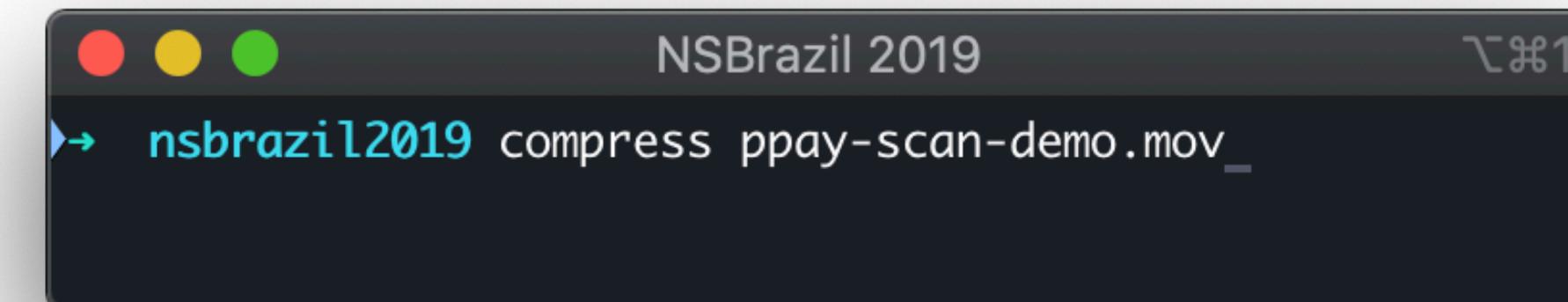
FFMpeg

Fazendo mágica no tamanho dos videos

🔗 link para o script no GitHub

```
# Compress video files while keep their quality
# Usage: compress video_file
# requires: ffmpeg
# tip: put this function on your ~/.profile file
compress() {
    sourcefile=$(basename "$1")
    filename="${sourcefile%.*}"
    ffmpeg -i ${sourcefile} -c:v libx264 -crf 24 -b:v 1M -c:a aac -strict -2 "${filename}"_compressed.mp4
}
```

13MB →



ppay-scan-demo.mov

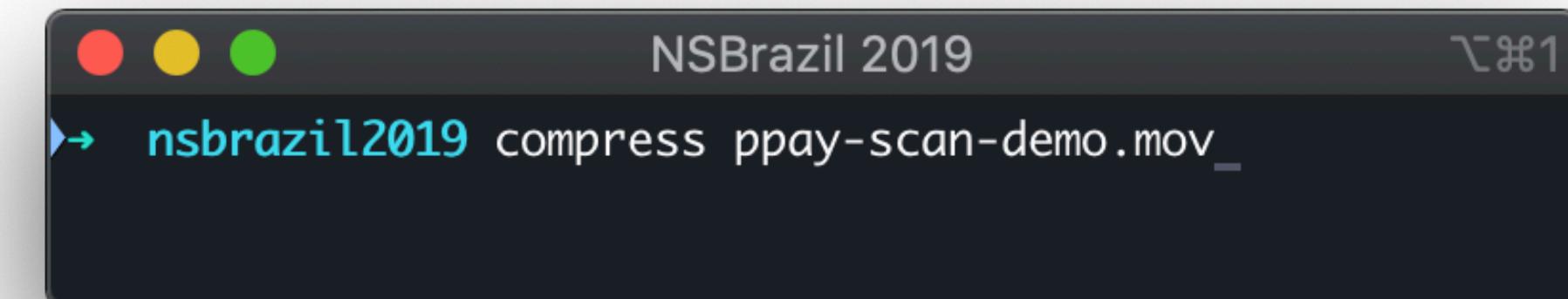
FFMpeg

Fazendo mágica no tamanho dos videos

🔗 link para o script no GitHub

```
# Compress video files while keep their quality
# Usage: compress video_file
# requires: ffmpeg
# tip: put this function on your ~/.profile file
compress() {
    sourcefile=$(basename "$1")
    filename="${sourcefile%.*}"
    ffmpeg -i ${sourcefile} -c:v libx264 -crf 24 -b:v 1M -c:a aac -strict -2 "${filename}"_compressed.mp4
}
```

13MB →



ppay-scan-demo.mov

→ 1.2 MB

ppay-scan-demo_compressed.mp4

FFMpeg

Demos e provas em Gifs

🔗 link para o script no GitHub

```
# Convert video to gif file.
# Usage: video2gif video_file (scale) (fps)
# requires: ffmpeg
# tip: put this function on your ~/.profile file
video2gif() {
    sourcefile=$(basename "$1")
    filename="${sourcefile%.*}"
    ffmpeg -y -i "${1}" -vf fps=${3:-10},scale=${2:-320}:-1:flags=lanczos,
    palettegen "${filename}.png"
    ffmpeg -i "${1}" -i "${filename}.png" -filter_complex "fps=${3:-10},scale=$
    {2:-320}:-1:flags=lanczos[x];[x][1:v]paletteuse" "${filename}".gif
    rm "${filename}.png"
}
```

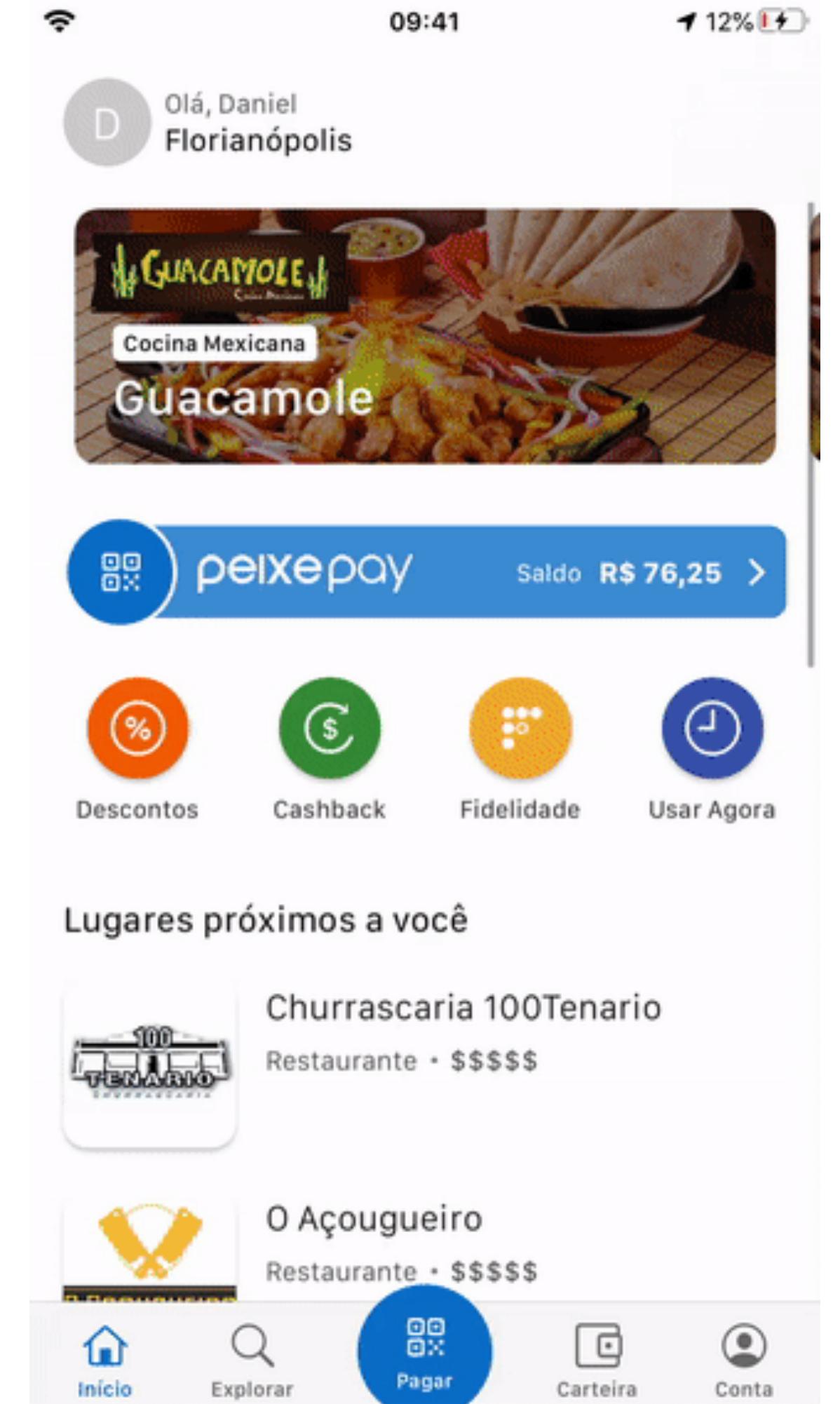
FFMpeg

Demos e provas em Gifs

🔗 link para o script no GitHub

```
# Convert video to gif file.  
# Usage: video2gif video_file (scale) (fps)  
# requires: ffmpeg  
# tip: put this function on your ~/.profile file  
video2gif() {  
    sourcefile=$(basename "$1")  
    filename="${sourcefile%.*}"  
    ffmpeg -y -i "${1}" -vf fps=${3:-10},scale=${2:-320}:-1:flags=lanczos,  
    palettegen "${filename}.png"  
    ffmpeg -i "${1}" -i "${filename}.png" -filter_complex "fps=${3:-10},scale=${2:-320}:-1:flags=lanczos[x];[x][1:v]paletteuse" "${filename}.gif"  
    rm "${filename}.png"  
}
```

1.9 MB
ppay-scan-demo_compressed.gif



Desafio 5 - Find a bug

Usando o Git para
encontrar a origem de
um bug

Desafio 5 - Find a bug

Usando o Git para
encontrar a origem de
um bug

git bisect



Desafio 5 - Find a bug

git bisect

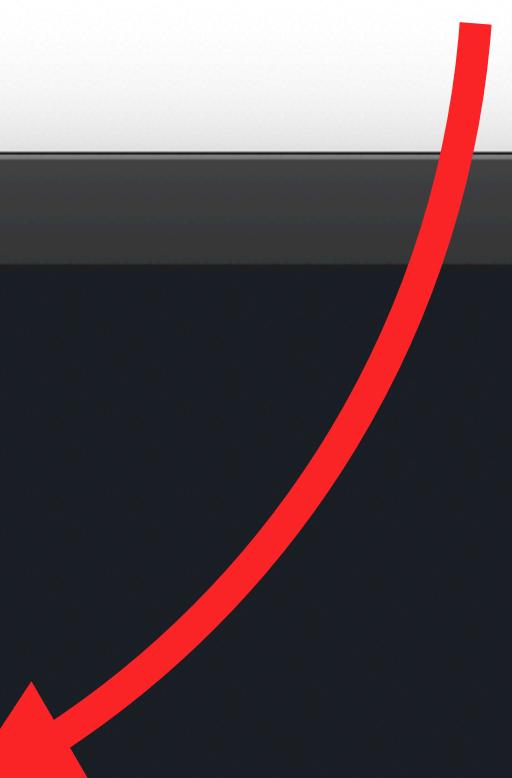


Uso básico

```
git bisect start  
git bisect bad HEAD  
git bisect good cb79160
```

Git bisect

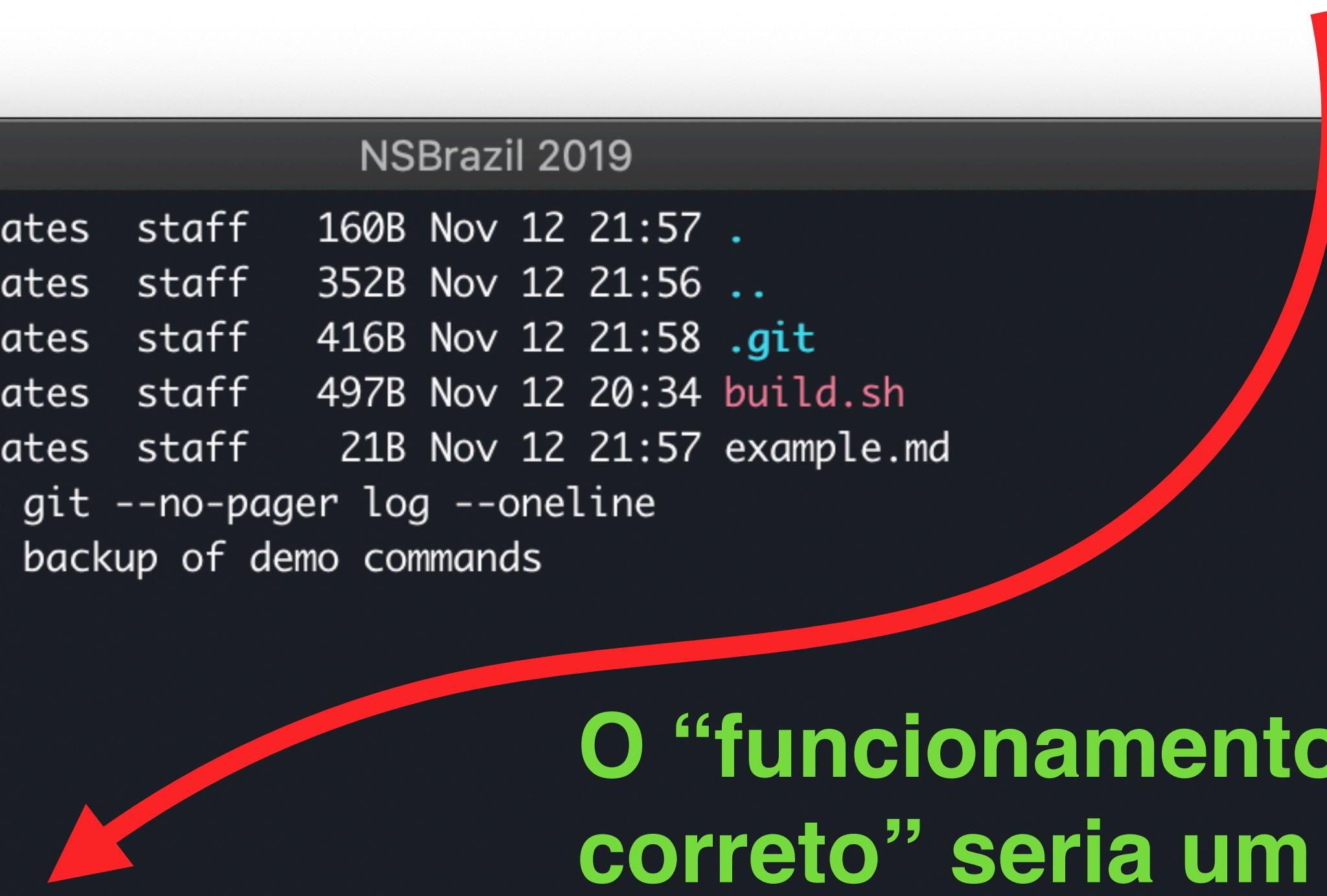
Esses são os arquivos do projeto



```
git-demo git:(master) l
total 16
drwxr-xr-x  5 danielbonates  staff  160B Nov 12 21:57 .
drwxr-xr-x 11 danielbonates  staff  352B Nov 12 21:56 ..
drwxr-xr-x 13 danielbonates  staff  416B Nov 12 21:58 .git
-rwxr-xr-x@  1 danielbonates  staff  497B Nov 12 20:34 build.sh
-rw-r--r--  1 danielbonates  staff   21B Nov 12 21:57 example.md
git-demo git:(master)
```

Git bisect

Listando os últimos commits

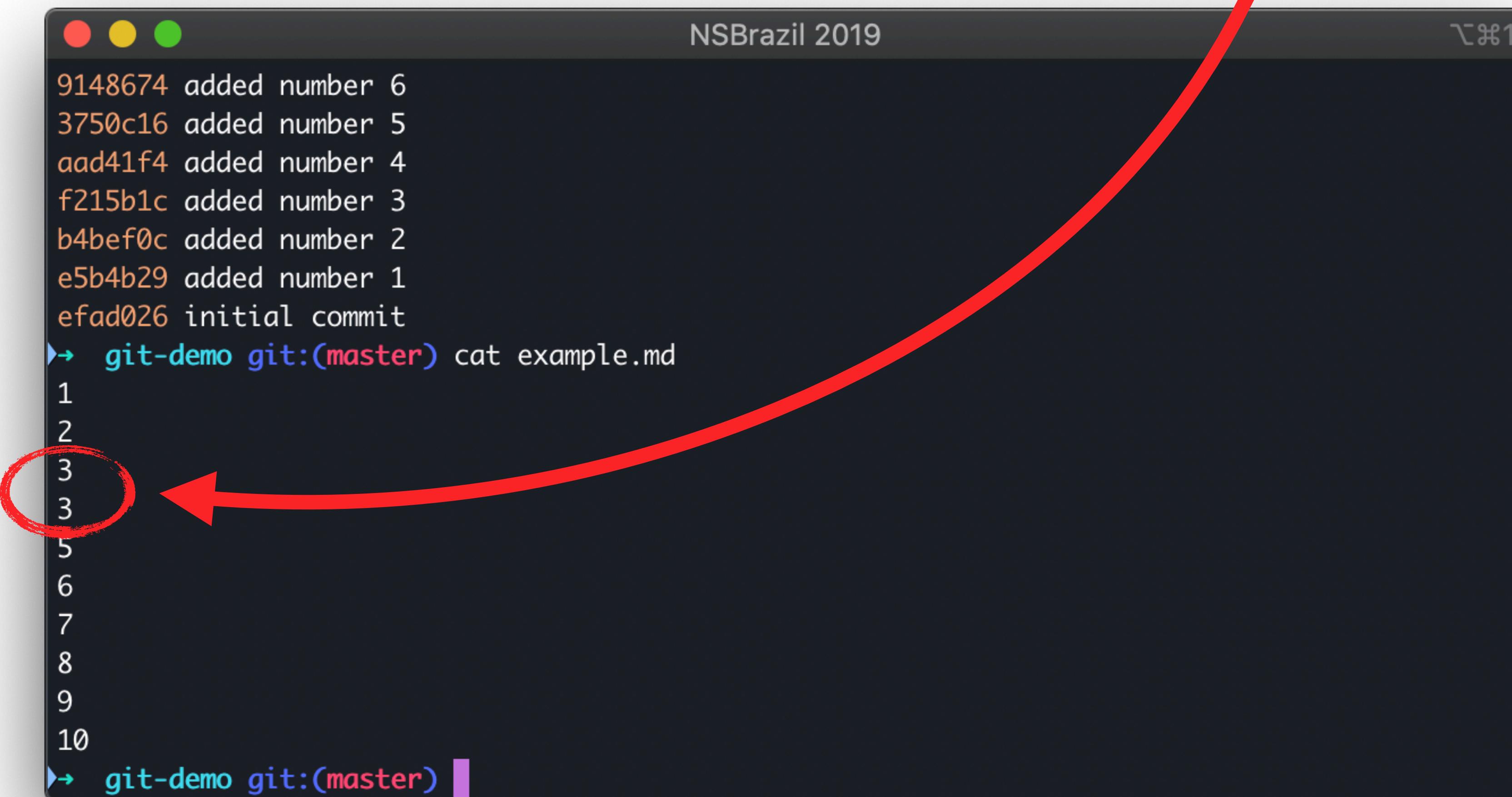


```
drwxr-xr-x  5 danielbonates  staff  160B Nov 12 21:57 .
drwxr-xr-x 11 danielbonates  staff  352B Nov 12 21:56 ..
drwxr-xr-x 13 danielbonates  staff  416B Nov 12 21:58 .git
-rw-rxr-x@  1 danielbonates  staff  497B Nov 12 20:34 build.sh
-rw-r--r--  1 danielbonates  staff   21B Nov 12 21:57 example.md
→ git-demo git:(master) git --no-pager log --oneline
17c7315 (HEAD -> master) backup of demo commands
069d1fb added number 10
8063830 added number 9
99533d5 added number 8
e30105f added number 7
9148674 added number 6
3750c16 added number 5
aad41f4 added number 4
f215b1c added number 3
b4bef0c added number 2
e5b4b29 added number 1
efad026 initial commit
→ git-demo git:(master)
```

O “funcionamento correto” seria um arquivo com números sequenciais de 1 a 10.

Git bisect

Examinando o arquivo **example.md**, encontramos um bug: o conteúdo repete o **3**.

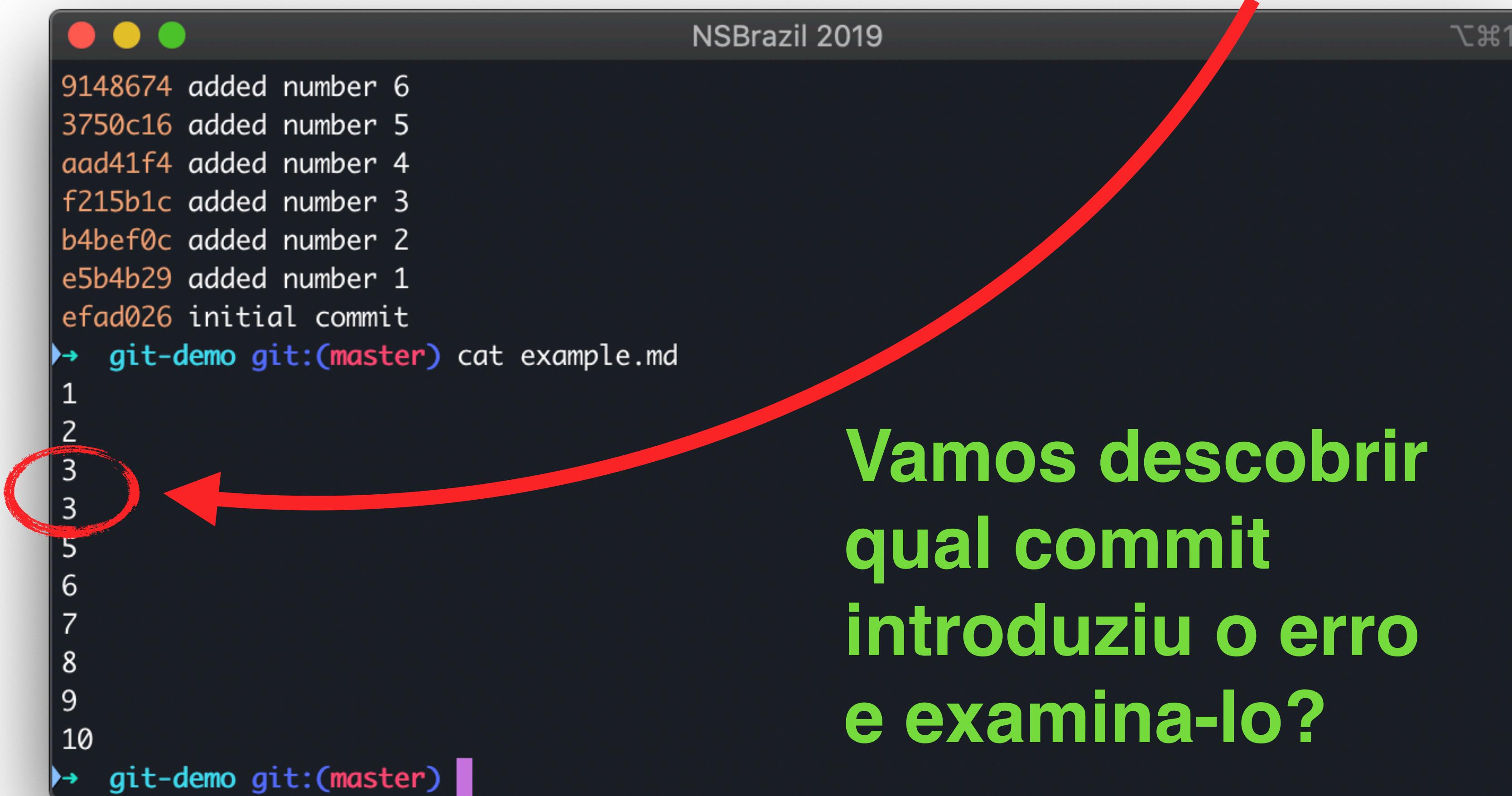


```
NSBrazil 2019
```

```
9148674 added number 6
3750c16 added number 5
aad41f4 added number 4
f215b1c added number 3
b4bef0c added number 2
e5b4b29 added number 1
efad026 initial commit
git-demo git:(master) cat example.md
1
2
3
3
5
6
7
8
9
10
git-demo git:(master)
```

Git bisect

Examinando o arquivo `example.md`, encontramos um bug: o conteúdo repete o 3. Pense nisso como uma funcionalidade “quebrada”.



NSBrazil 2019

```
9148674 added number 6
3750c16 added number 5
aad41f4 added number 4
f215b1c added number 3
b4bef0c added number 2
e5b4b29 added number 1
efad026 initial commit
→ git-demo git:(master) cat example.md
1
2
3
3
5
6
7
8
9
10
→ git-demo git:(master)
```

Vamos descobrir qual commit introduziu o erro e examina-lo?

Git bisect



NSBrazil 2019

```
3750c16 added number 5
aad41f4 added number 4
f215b1c added number 3
b4bef0c added number 2
e5b4b29 added number 1
efad026 initial commit
→ git-demo git:(master) cat example.md
1
2
3
3
5
6
7
8
9
10
→ git-demo git:(master) git bisect start ←
→ git-demo git:(master)
```

**Passo 1:
iniciar a caça
ao bug!**

Git bisect

```
aad41f4 added number 4  
f215b1c added number 3  
b4bef0c added number 2  
e5b4b29 added number 1  
efad026 initial commit  
→ git-demo git:(master) cat example.md  
1  
2  
3  
3  
5  
6  
7  
8  
9  
10  
→ git-demo git:(master) git bisect start  
→ git-demo git:(master) git bisect bad HEAD
```

Passo 2:
Dizer pro git, qual
commit é possível
reproduzir o erro

Git bisect

```
b4bef0c added number 2  
e5b4b29 added number 1  
efad026 initial commit  
→ git-demo git:(master) cat example.md  
1  
2  
3  
3  
5  
6  
7  
8  
9  
10  
→ git-demo git:(master) git bisect start  
→ git-demo git:(master) git bisect bad HEAD  
→ git-demo git:(master) git bisect good e5b4b29  
Bisecting: 4 revisions left to test after this (roughly 2 steps)
```

Passo 3:
Dizer pro git,
onde o erro não
existe ainda.

Git bisect

A partir daí, o git vai te mover na timeline de commits, buscando o commit assassino!

```
5
6
7
8
9
10
→ git-demo git:(master) git bisect start
→ git-demo git:(master) git bisect bad HEAD
→ git-demo git:(master) git bisect good e5b4b29
Bisection: 4 revisions left to test after this (roughly 2 steps)
[91486742273521fe85016488c7162e6deeb68521] added number 6
→ git-demo git:(9148674) cat example.md
1
2
3
3
5
6
→ git-demo git:(9148674)
```

Estimativa de quantos passos ainda restam para encontrar o bug

Teste o código e verifique se o erro está presente nesse commit. Nesse caso, ainda sim 😊

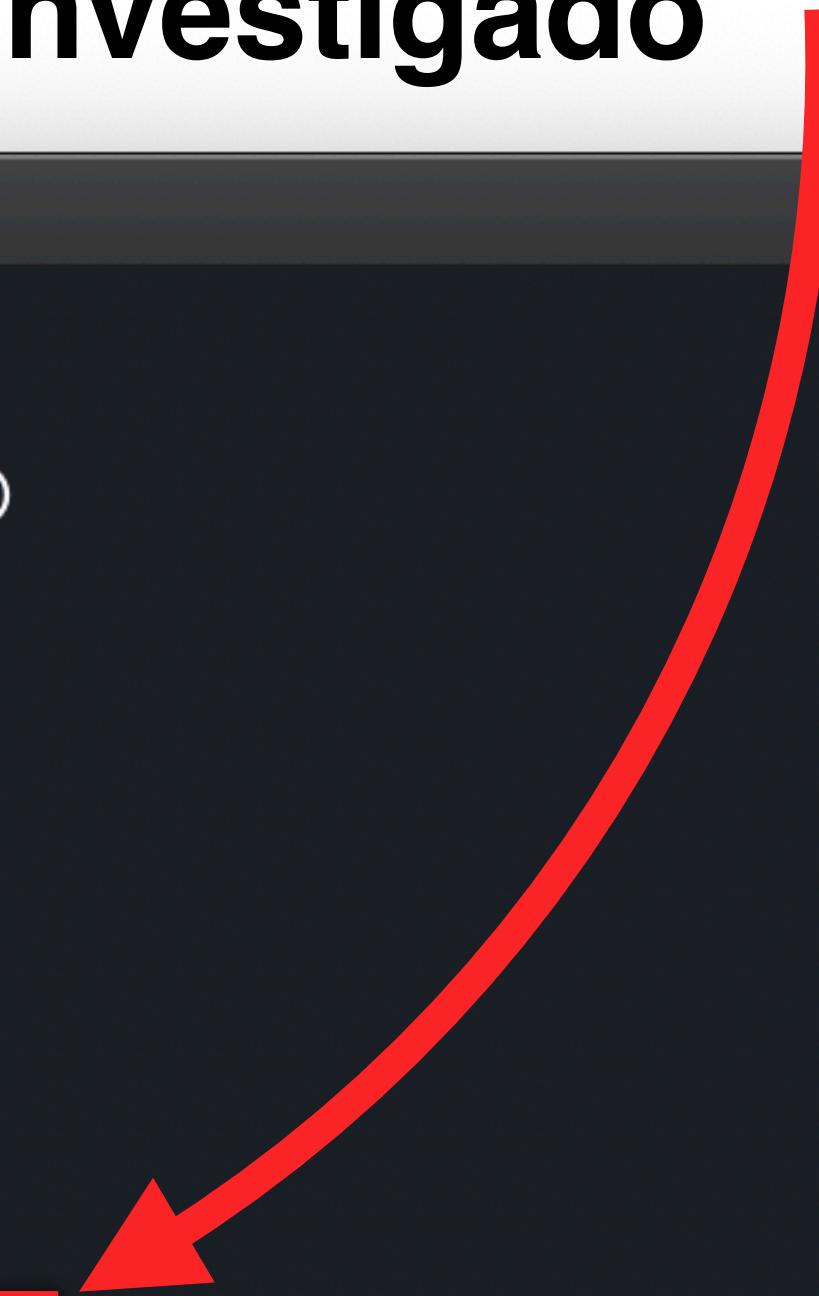
Git bisect

Testamos o commit (1) verificamos que o erro existe (2), marcamos esse passo como **bad** (3).

```
7
8
9
10
→ git-demo git:(master) git bisect start
→ git-demo git:(master) git bisect bad HEAD
→ git-demo git:(master) git bisect good e5b4b29
Bisecting: 4 revisions left to test after this (roughly 2 steps)
[91486742273521fe85016488c7162e6deeb68521] added number 6
→ git-demo git:(9148674) cat example.md
1
2
3
3
5
6
→ git-demo git:(9148674) git bisect bad
Bisecting: 2 revisions left to test after this (roughly 1 step)
```

Git bisect

O Git vai seguir a busca e te mover pro próximo commit a ser investigado



```
git-demo git:(master) git bisect bad HEAD
git-demo git:(master) git bisect good e5b4b29
Bisecting: 4 revisions left to test after this (roughly 2 steps)
[91486742273521fe85016488c7162e6deeb68521] added number 6
git-demo git:(9148674) cat example.md
1
2
3
3
5
6
git-demo git:(9148674) git bisect bad
Bisecting: 2 revisions left to test after this (roughly 1 step)
[f215b1c79aa23aed36bfa7c1de6ac704d55105b4] added number 3
git-demo git:(f215b1c) cat example.md
1
2
3
git-demo git:(f215b1c)
```

Git bisect

Nesse commit, ao testar o código (1) verificamos que o erro não ocorre (2), marcamos ele como **good** (3)!

```
Bisecting: 4 revisions left to test after this (roughly 2 steps)
[91486742273521fe85016488c7162e6deeb68521] added number 6
↳ git-demo git:(9148674) cat example.md
1
2
3
3
5
6

↳ git-demo git:(9148674) git bisect bad
Bisecting: 2 revisions left to test after this (roughly 1 step)
[f215b1c79aa23aed36bfa7c1de6ac704d55105b4] added number 3
↳ git-demo git:(f215b1c) cat example.md
1
2
3
3
5
6

git-demo git:(f215b1c) git bisect good
Bisecting: 0 revisions left to test after this (roughly 0 steps)
[8f6825329b775f12e72f40a6185ee42c497b0a57] added number 4
```

Git bisect

Pronto! Praticamente apenas digitando bad e good, chegamos no commit com problema. Nele podemos conferir com mais detalhes as mudanças que introduziram o bug.



```
commit 8f6825329b775f12e72f40a6185ee42c497b0a57 (HEAD)
Author: Daniel Bonates <daniel@bonates.com>
Date:   Tue Nov 12 23:35:16 2019 -0300

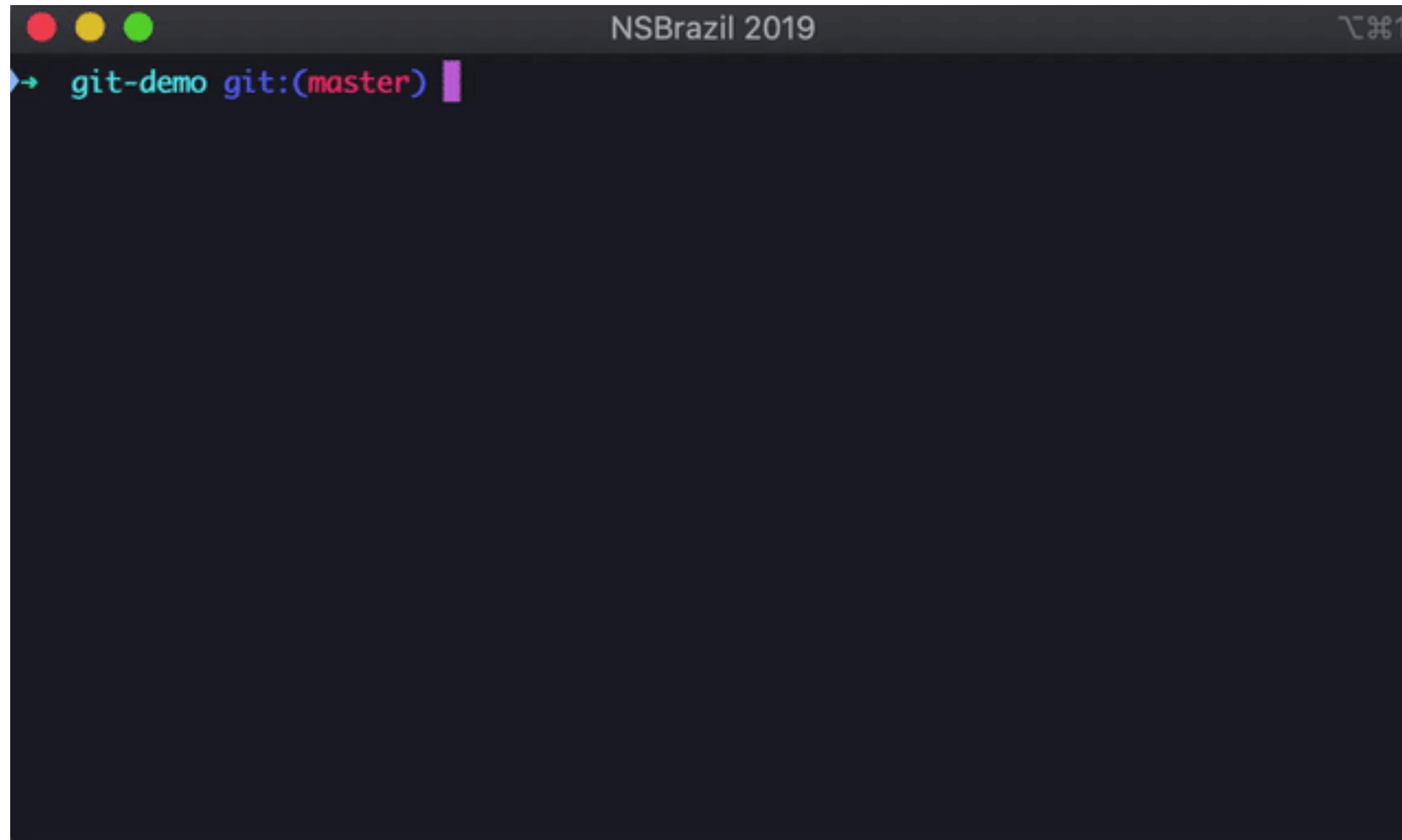
    added number 4

diff --git a/example.md b/example.md
index 01e79c3..7d8164b 100644
--- a/example.md
+++ b/example.md
@@ -1,3 +1,4 @@
1
2
3
+3
(END)
```

O comando
git show
pode cair bem aqui!

Git bisect

Demo do fluxo completo



visualizar no browser



@DanielBonates



@bonates



@dbonates



#vem-pro-peixe