



CURSO 525

INFRAESTRUTURA ÁGIL COM PRÁTICAS DEVOPS





Introdução e Instalação do Gogs

[illegible]

- ## Anotações



Bitbucket

[illegible]

4



Anotações

- ## Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Iremos instalar o Gogs na máquina virtual scm, a qual é um Ubuntu Server com apenas 256MB de memória RAM.

- | | |
|---|---|
| 1 | Acesse a pasta infraagil para iniciar a aula
<code># cd infraagil</code> |
| 2 | Conecte-se à máquina scm, utilizando o vagrant ssh:
<code># vagrant ssh scm</code> |
| 3 | Troque para o usuário root:
<code># sudo su -</code> |
| 4 | Crie o usuário gogs e crie sua home
<code># useradd gogs -m</code> |

scm.4labs.example

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Para instalar o gogs primeiramente precisamos instalar o banco de dados. Utilizaremos o `sqlite3` como banco de dados.

- | | |
|---|---|
| 1 | Instalando as dependências
apt update
apt install libsqlite3-0 vim git sqlite3 curl -y |
| 2 | Efetue o download do pacote do gogs
curl https://dl.gogs.io/0.11.91/gogs_0.11.91_linux_amd64.tar.gz -o gogs.tar.gz |
| 3 | Extraia o pacote do gogs para o diretório /opt
tar -xzf gogs.tar.gz -C /opt |
| 4 | Troque o dono da pasta gogs
chown gogs:gogs -R /opt/gogs |

scm.4labs.example

Anotações

[illegible]

Vamos adicionar o gogs como um serviço do systemctl

1

Copiando o arquivo de configuração do serviço

```
# cp /vagrant/4525/files/gogs.service /lib/systemd/system/
```

2

Recarregando o deamon do systemctl para conhecer o serviço do gogs

```
# systemctl daemon-reload
```

3

Inicie agora e ative no boot do sistema o serviço do gogs

```
# systemctl start gogs  
# systemctl enable gogs
```

4

Verifique se o serviço está sendo executado

```
# systemctl status gogs
```

scm.4labs.example

=== gogs.service ===

[Unit]

Description=Gogs

After=syslog.target

After=network.target

After=mariadb.service mysqld.service postgresql.service memcached.service redis.service

[Service]

Type=simple

WorkingDirectory=/opt/gogs

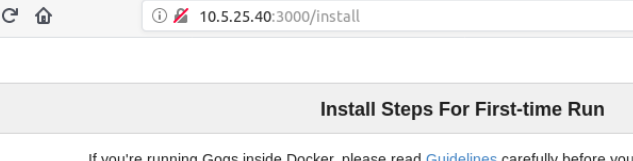
ExecStart=/opt/gogs/gogs web

Restart=always

Environment=USER=root HOME=/root

[Install]

WantedBy=multi-user.target



Installation - Gogs

10.5.25.40:3000/install

Install Steps For First-time Run

If you're running Gogs inside Docker, please read [Guidelines](#) carefully before you change anything

Database Settings

Gogs requires MySQL, PostgreSQL, SQLite3, MSSQL or TiDB.

Database Type * SQLite3

Path * data/gogs.db

The file path of SQLite3 database.
Please use absolute path when you start as service.

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Application General Settings

Put your organization name here huge and loud!

All Git remote repositories will be saved to this directory.

The user must have access to Repository Root Path and run Gogs.

This affects SSH clone URLs.

Port number which your SSH server is using, leave it empty to disable SSH feature.

☒ Use Builtin SSH Server

Anotações

HTTP Port*

80

Port number which application will listen on.

Application URL*

http://scm.4labs.example:80/

This affects HTTP/HTTPS clone URL and somewhere in email.

Log Path*

/opt/gogs/log

Directory to write log files to.

☐ Enable Console Mode

Anotações

[illegible]

- ▶ Email Service Settings
- ▶ Server and Other Services Settings
- ▼ Admin Account Settings

You do not have to create an admin account right now, user whoever ID=1 will gain admin access automatically.

Username	root
----------	------

Password | devops@4linux

Confirm Password devops@4linux

Admin Email	admin@4labs.example
-------------	---------------------

Install Gogs

Anotações

1

```
# systemctl restart gogs
```

Anotações

10.5.25.10	automation.4labs.example
10.5.25.20	compliance.4labs.example
10.5.25.30	container.4labs.example chat.4labs.example
10.5.25.40	scm.4labs.example
10.5.25.50	log.4labs.example

Em sistemas **Linux** e **Mac** mude para a conta do usuário root, e adicione o conteúdo arquivo modelo hosts.curso ao final de seu arquivo /etc/hosts:


```
# cat /home/<usuário>/infraagil/4525/files/hosts.curso >> /etc/hosts
```



Em sistemas **Windows** adicione a lista das VMs do curso, no final do seguinte arquivo:

C:\Windows\System32\drivers\etc\hosts

[illegible]

Acesse pelo navegador web o endereço `http://scm.4labs.example`, clique em **sign in** e digite o usuário **admin@4labs.example** e senha **devops@4linux**:

[Home](#)[Explore](#)[Help](#)

 [Register](#) [Sign In](#)

Sign In

Username or email *

Password *

☐ Remember Me

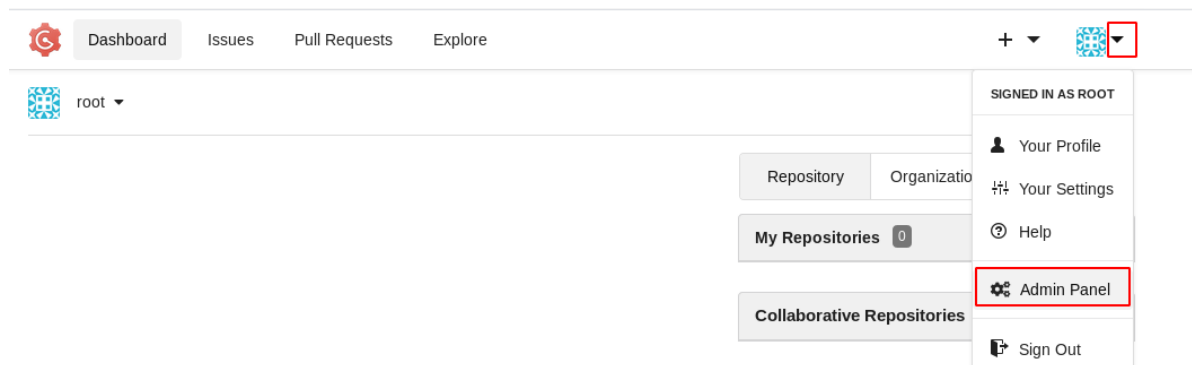
[Sign In](#) [Forgot password?](#)

[Need an account? Sign up now.](#)

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



Clique no menu dropdown ao lado da foto do seu usuário, em seguida, clique em **Admin Panel**:



Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Clique em **Users** e em seguida, clique em **Create New Account**:

 [Dashboard](#) [Issues](#) [Pull Requests](#) [Explore](#) [+](#) 

Admin Panel

Dashboard

Users

Organizations

Repositories

Authentications

Configuration

User Manage Panel (Total: 1)

Create New Account


Search

ID	Name	Email	Activated	Admin	Repos	Created	Edit
1	root	admin@4labs.example	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0	Jul 25, 2019	Edit

Anotações

[illegible]

Crie o usuário **analista** com a senha **devops@4linux**:

 Dashboard Issues Pull Requests Explore

Admin Panel

Dashboard

Users

Organizations

Repositories

Authentications

Configuration

System Notices

Monitoring

Create New Account

Authentication Source *

Local

Username *

analista

Email *

analista@4labs.example

Password *


| devops@4linux

Create New Account

Anotações

[illegible]

Vamos agora fazer com que o usuário analista se torne um administrador, para isto clique em **Users** e em seguida, clique em Edit para o usuário **analista**:

 Dashboard Issues Pull Requests Explore

Admin Panel

Dashboard

Users

Organizations

Repositories

Authentications

Configuration

User Manage Panel (Total: 2)

Create New Account

Search...

Search

ID	Name	Email	Activated	Admin	Repos	Created	Edit
1	root	admin@4labs.example	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0	Jul 25, 2019	✎
2	analista	analista@4labs.example	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	Jul 25, 2019	✎

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Edit Account

Usernameanalista

Authentication Source *Local

Full NameAnalista DevOps

Email *analista@4labs.example

Password

☒ This account is activated

☐ This account is prohibited to login

☒ This account has administrator permissions

☐ This account has permissions to create Git hooks

Update Account Profile

Delete This Account

Anotações

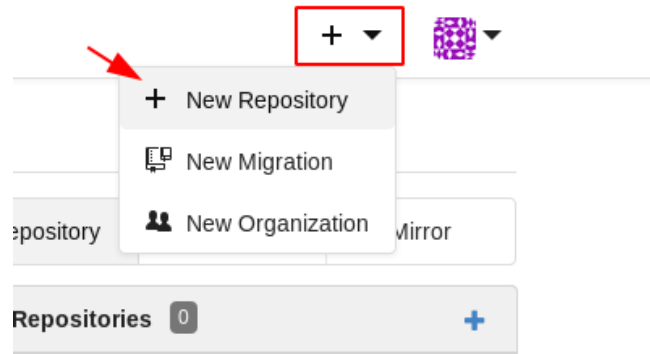
This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This screenshot shows the 'Sign In' page of the application. On the left, a sidebar contains navigation links: 'Your Profile', 'Your Settings', 'Help', 'Admin Panel', and 'Sign Out'. The 'Sign Out' link is highlighted with a red box. The main content area is titled 'Sign In' and contains a form with two input fields: 'Username or email *' (containing 'analista') and 'Password *' (containing 'devops@4linux'). Below the password field is a 'Remember Me' checkbox. At the bottom of the form are two buttons: a green 'Sign In' button and a blue 'Forgot password?' link. A blue link 'Need an account? Sign up now.' is located below the 'Sign In' button. In the top right corner, there are links for 'Register' and 'Sign In', with the latter highlighted by a red box. The top left corner shows a navigation menu with a plus sign, a minus sign, and a 'Sign Out' button, with the 'Sign Out' button highlighted by a red box.

Anotações

[illegible]

Para criar um novo repositório, podemos clicar no símbolo + ao lado esquerdo da foto do usuário e em seguida, clicar em **+ New Repository**:




Anotações

[illegible]

Para criar repositório, basta preencher os campos com o nome do repositório e com a descrição do mesmo. Em seguida, clique em **Create Repository**:

New Repository

Owner *

 analista

Repository Name *

primeiro

A good repository name is usually composed of short, memorable keywords.

Visibility

☐ This repository is Private

Description

Meu primeiro repositório do gogs

Description of repository. Maximum 512 characters length.

☐ Initialize this repository with selected files

Create Repository

Cancel

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

The screenshot shows the GitHub repository page for 'analista / primeiro'. At the top, there's a header with the repository name and a 'Clone this repository' button. Below this, there are three buttons for cloning: 'HTTP', 'SSH', and 'HTTPS'. The 'SSH' button is highlighted. The SSH URL is 'ssh://root@scm.4labs.example:2222/analista/primeiro.git'. Below the cloning options, there's a section titled 'Create a new repository on the command line' with a code block containing the following commands:

```
touch README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin ssh://root@scm.4labs.example:2222/analista/primeiro.git
git push -u origin master
```

 Below this, there's another section titled 'Push an existing repository from the command line' with a code block containing the following commands:

```
git remote add origin ssh://root@scm.4labs.example:2222/analista/primeiro.git
git push -u origin master
```

Anotações

[illegible]

- 1 Gerenciamento de repositório GIT
- 2 O que é o Gogs
- 3 Instalação e Configuração do Gogs
- 4 Gerenciar Usuários e Repositórios

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



Usando Repositórios Remotos

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

- ## Anotações

Para isto, iremos utilizar os comandos do git para clonar um repositório, editar o mesmo e em seguida, efetuar o commit do código.

[illegible]

Vamos criar nosso repositório na máquina scm, para isto precisamos efetuar o login na mesma.

Acesse a pasta infraagil e conecte-se a máquina scm, utilizando o vagrant ssh:

```
# cd infraagil
# vagrant ssh scm
```

Antes de gerenciar os repositórios, devemos configurar os parâmetros globais do git **user.name** e o **user.email**:


```
# git config --global user.name "Analista DevOps"
# git config --global user.email "analista@4labs.example"
```


scm.4labs.example

Anotações

[illegible]

[Help](#)

 [Register](#)

 [Sign In](#)

Sign In

Username or email *

analista

Password *

| devops@4linux


☐ Remember Me

Sign In


[Forgot password?](#)




[Need an account? Sign up now.](#)


This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.





[Dashboard](#)[Issues](#)[Pull Requests](#)[Explore](#)








analista 



analista created repository [analista/primeiro](#)




56 minutes ago


More


Repository

Organization

Mirror

My Repositories 

 [primeiro](#)

0 

Collaborative Repositories

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Jose Luiz Bento Da Silva / luizbsilva@gmail.com



Gerenciando repositórios remotos via CLI

De volta ao terminal, executaremos um git clone para clonar o repositório à nossa máquina scm:

1 Clone o repositório:
`# git clone http://scm.4labs.example:80/analista/primeiro.git`

2 Visualize se a pasta do repositório foi criada:
`# ls -l`

3 Acesse a pasta do repositório:
`# cd primeiro`

scm.4labs.example

O comando git clone faz uma cópia do repositório remoto na máquina atual, juntamente com o diretório .git, onde se localiza todas as informações de commits e do endereço do repositório.

Vamos criar alguns arquivos para enviar ao nosso repositório:

```
1 Crie arquivos:  
# touch arquivo{1..5}.txt
```

```
2 Crie arquivo readme.md:  
# echo "# Meu Primeiro Repositorio" > README.md
```

scm.4labs.example

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Agora, vamos adicionar nossos arquivos para o commit:

Adicione todos os arquivos:

```
# git add --all
```

Verifique o status:

```
# git status
```

Execute o commit:

```
# git commit -m "Meu primeiro commit no gogs"
```

scm.4labs.example

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Gerenciando repositórios remotos via CLI

Criado nosso commit, precisamos enviá-lo para o servidor gogs, faremos isso através do comando git push e digitando nosso usuário e senha.

1

Envie os arquivos para o gogs:

```
# git push origin master
```

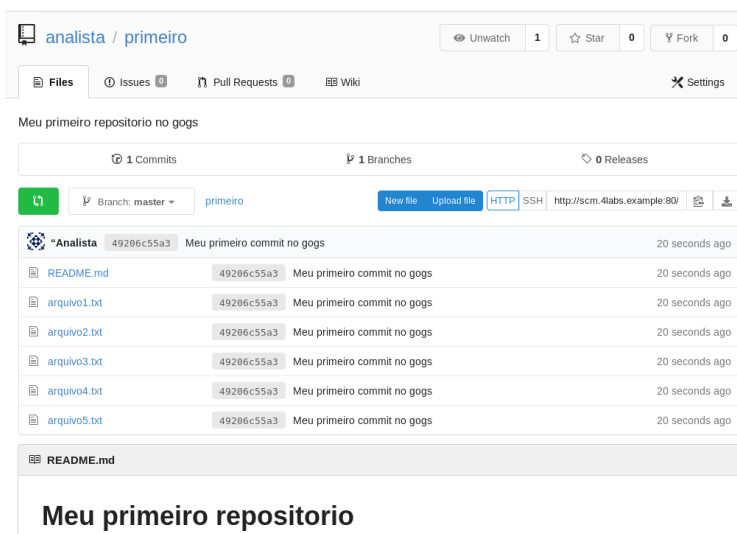
Username for 'http://scm.4labs.example:80': **analista**

Password for 'http://analista@scm.4labs.example:80': **devops@4linux**

scm.4labs.example

O comando git push envia todos os commits que estão a frente do repositório remoto. Para subir as mudanças, o repositório local deve estar com os commits mais recentes que o repositório remoto.

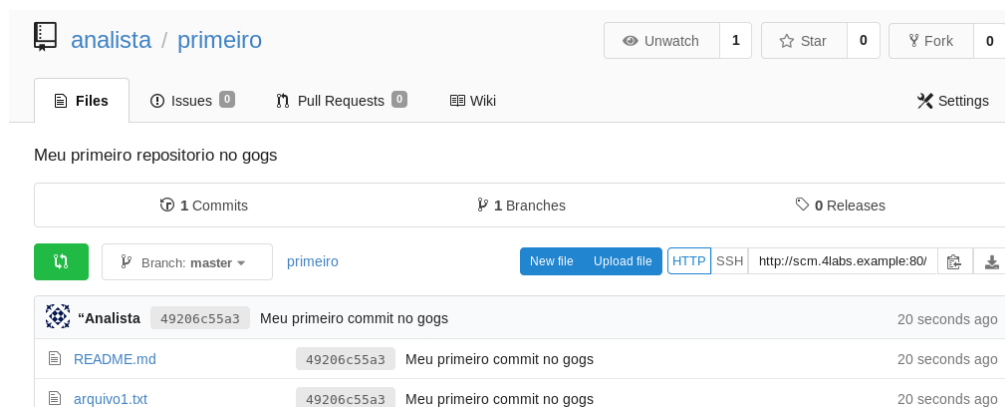
Acesse agora o gogs e atualize a página do repositório no navegador, veja que os arquivos já estão disponíveis no mesmo.



Anotações

[illegible]

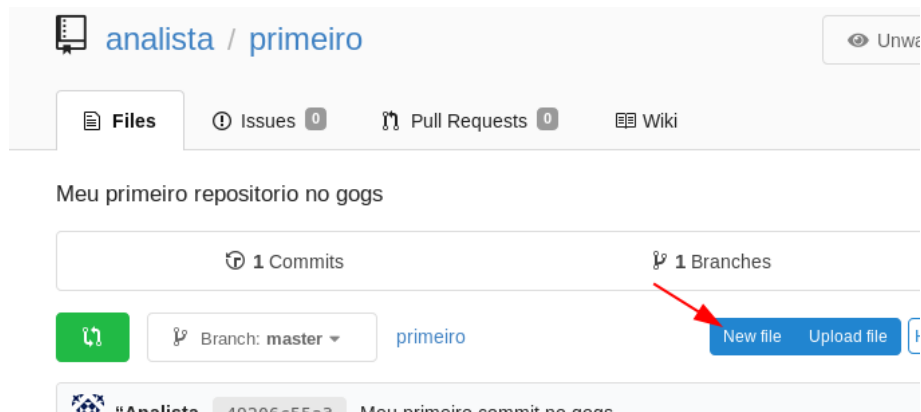
Na página do gogs temos acesso a todas as informações do nosso repositório, tais como id do commit, quem efetuou, quais são os arquivos neste repositório, quantas branches e quantos commits o mesmo possui, etc.



Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Podemos também enviar e criar arquivos pela interface web, através dos botões **New file** e **Upload file** na página. Clique em **New File** para criarmos um arquivo.



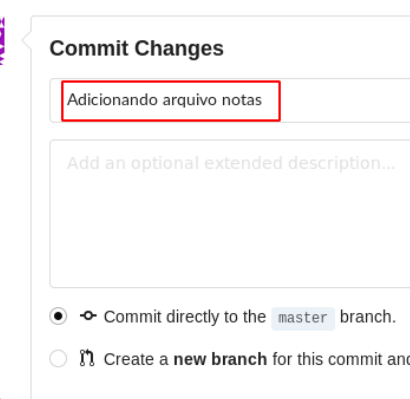
Anotações

[illegible]

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Na parte inferior da página, podemos adicionar uma mensagem de commit e efetuar o commit do arquivo clicando em **Commit Changes**.



Commit Changes

Añadiendo archivo notas

Add an optional extended description...

☒ Commit directly to the `master` branch.

☐ Create a **new branch** for this commit and start a new pull request.

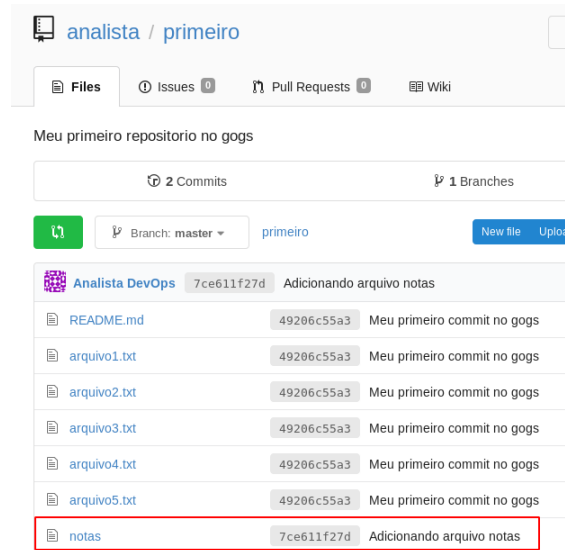
Commit Changes Cancel

Anotações

[illegible]

[illegible]

Podemos verificar agora que nosso arquivo foi adicionado ao repositório e seu ID e comentário do commit são exibidos na página principal do projeto.



Anotações

[illegible]

- 1 Gerenciando repositórios remotos via CLI (command line interface)
- 2 Gerenciando repositórios remotos via web

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Gogs

Integrações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. In the top left corner, there is a small, faint watermark logo consisting of three stylized, overlapping shapes. The overall appearance is that of a clean, unused piece of stationery.

- ## Anotações

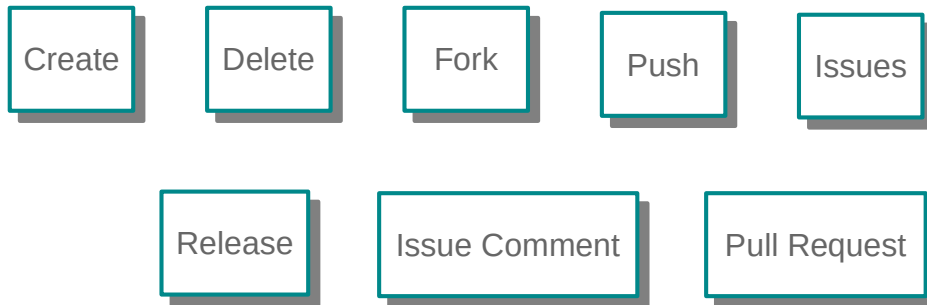
This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Os projetos no Gogs podem ser integrados a qualquer outro sistema que aceite webhooks, com este recurso podemos enviar uma notificação via HTTP Post, caso alguma ação aconteça no Gogs.

Anotações

[illegible]

Os webhooks são acionados por gatilhos (**triggers**). No Gogs existem os seguintes triggers disponíveis:



Possibilidades de cada webhook:

Create → Criação de Branch ou Tag;

Delete → Remoção de Branch ou Tag;

Fork → Fork de repositório;

Push → Git push do repositório;


Issues → Issue abertas, fechadas, reabertas, editadas, atribuídas, desatribuídas, etiqueta atualizada, etiqueta removida, criação ou remoção de marco histórico;


Pull Request → Abertura, fechamento, reabertura, edição, atribuição, desatribuição, atualização de etiqueta, etiqueta removida de requisição de pull;

Issue Comment → Criação, edição, remoção de comentário em issues;

Release → Release publicada em repositório.

[Help](#)

 [Register](#)

 [Sign In](#)

Sign In

Username or email *

analista

Password *

| devops@4linux

☐ Remember Me

Sign In


[Forgot password?](#)

[Need an account? Sign up now.](#)

Anotações

[illegible]

Collaborative Repositories

 **analista** / primeiro

Unwatch1

Star0

Fork0

Files

Issues0

Pull Requests0

Wiki

Settings

Settings

Options

Collaboration

Branches

Webhooks

Git Hooks

Deploy Keys

Webhooks

Add Webhook

Webhooks are much like basic HTTP POST event triggers. Whenever something occurs in Gogs, we will handle the notification to the target host you specify. Learn more in this [Webhooks Guide](#).

Anotações

[illegible]

[illegible]

Nas próximas aulas, teremos que integrar nosso Gogs a outras ferramentas para automação do ambiente, para isto criaremos estes webhooks.

Add Webhook

Gogs will send a POST request to the URL you specify, along with details regarding the event that occurred. You can also specify what kind of data format you'd like to get upon triggering the hook (JSON, x-www-form-urlencoded, XML, etc). More information can be found in our [Webhooks Guide](#).

Payload URL *

http://test.4labs.example

Content Type

application/json

Secret

Secret will be sent as SHA256 HMAC hex digest of payload via X-Gogs-Signature header.

When should this webhook be triggered?

☒ Just the push event

☐ I need everything

☐ Let me choose what I need

☒ Active

Details regarding the event which triggered the hook will be delivered as well.

Add Webhook

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

New webhook has been added.

Webhooks

Add Webhook

Webhooks are much like basic HTTP POST event triggers. Whenever something occurs in Gogs, we will handle the notification to the target host you specify. Learn more in this [Webhooks Guide](#).

● http://test.4labs.example

Anotações


[illegible]


Chaves de deploy são ótimas maneiras de dar acesso somente leitura para efetuar o git clone da aplicação.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Para adicionar as chaves de deploy, precisamos acessar a página do gogs e efetuar o login com o usuário dono do projeto:

[Help](#)

 [Register](#)

 [Sign In](#)

Sign In

Username or email *

Password *

☐ Remember Me

Sign In

[Forgot password?](#)

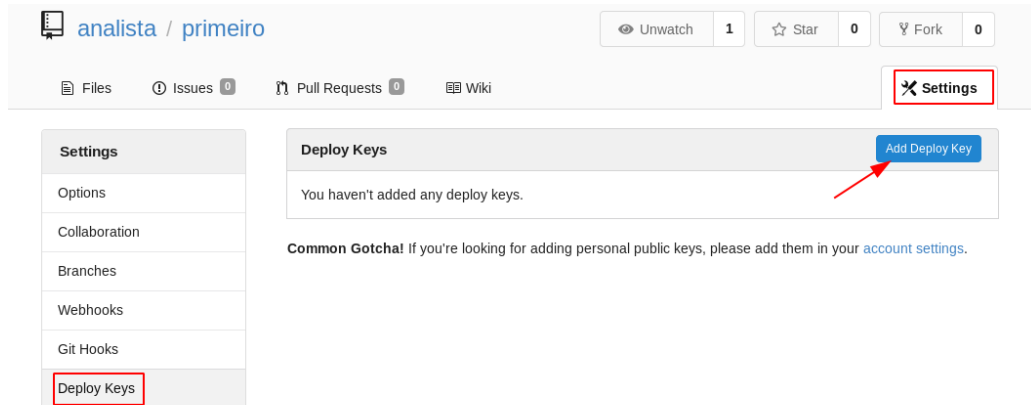
[Need an account? Sign up now.](#)

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Documento produzido pela 4Linux

Clique em **Settings**, **Deploy Keys** e **Add Deploy Key** para adicionar à chave de deploy:



Anotações

[illegible]

Na pasta infraagil conecte na máquina scm e copie o conteúdo do arquivo para o gogs:

```
# cd infraagil
# vagrant ssh scm
# cat /vagrant/files/key.pub
```

scm.4labs.example

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Dê um nome a sua chave e cole o conteúdo da chave pública no campo `content`. Em seguida, clique em **add deploy key**.

Deploy Keys

Add Deploy Key

You haven't added any deploy keys.

Common Gotcha! If you're looking for adding personal public keys, please add them in your [account settings](#).

Add Deploy Key

Deploy keys have read-only access. They are not the same as personal account SSH keys.

Title

chave-de-deploy

Content

ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQADIE/UV4yRn42xMzG1Rbb5td2itZTRZjOtR5ERDvTetc
1PN5KDLrDuIk64V1qs/Qz72r7toUcTmlCderxM1l0mTSOfOyYcnik7vyy/L+cVEI/RzMXoHP5z
/iHbNXf5T4DrX13xDsRxWl/TvN+DYgYkj265jX4Ej/j0BmzQsGAWFevyzs6uupldjnxsaToFMsa
/PrzLgqm3+pQX
/wbg8j2hiZWEVZN12R6b6lvBM5coael+gg9ZyEw18Y+ICuKVD6u2+u3jkn+v5K5SSkOQhv7aZ
Ey65U+gyKPYQc5UKUYoRNXgGVDZbToM6kzos5uXvf+jh7m67m5Uv0jPaPVie3R
aluno@desktop

Add Deploy Key

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

New deploy key 'chave-de-deploy' has been added successfully!

Add Deploy Key



Delete

Added on Jul 25, 2019 — ⓘ No recent activity

Anotações

Anotações

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Podemos testar se a chave de deploy está funcional, através do terminal.

1

Altere para o usuário root e acesse o diretório temporário:

```
# sudo su -  
# cd /tmp/
```

2

Execute o git clone, utilizando o campo ssh:

```
# git clone ssh://root@scm.4labs.example:2222/analista/primeiro.git
```

3

Verifique se o clone foi realizado com sucesso:

```
# ls -l /tmp/primeiro
```

scm.4labs.example

A chave ssh utilizada é a chave `id_rsa` do usuário root. Podemos alterar qual chave será utilizada através do arquivo de configuração do ssh-agent.

- ## Anotações

[illegible]