



Instituto Infnet

CURSO DE GRADUAÇÃO EM REDE DE COMPUTADORES

## **PROJETO DE BLOCO**

### **Arquitetura e Infraestrutura de Aplicações**

#### **AVALIAÇÃO TP3**

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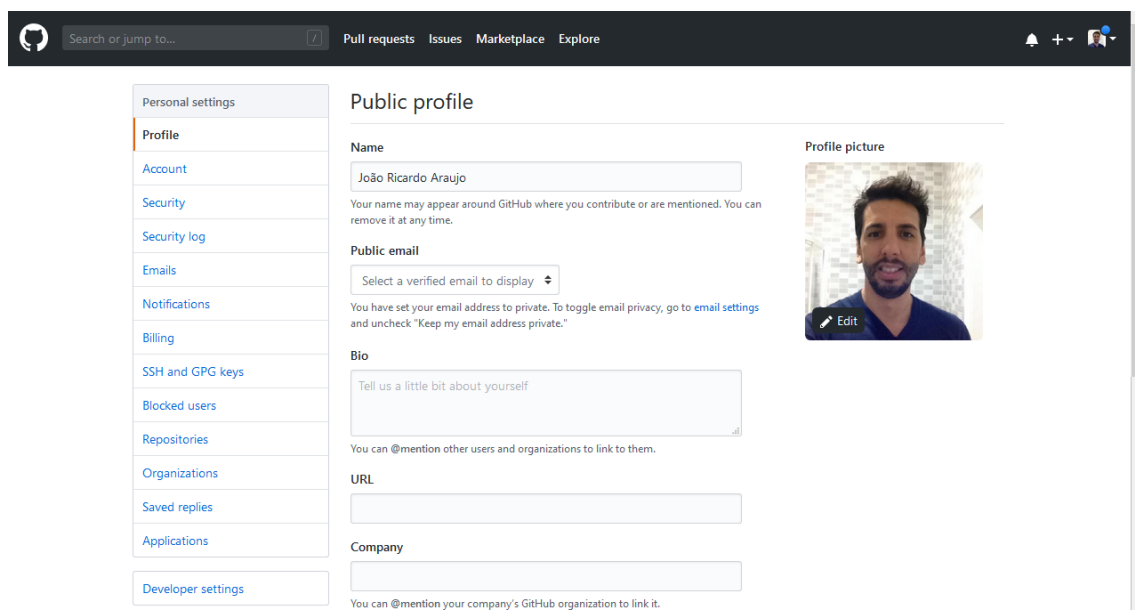
## 1. INTRODUÇÃO

Esse TP visa a desenvolver a configuração do GIT baseado no TP2 e a publicação do repositório no GitHub.

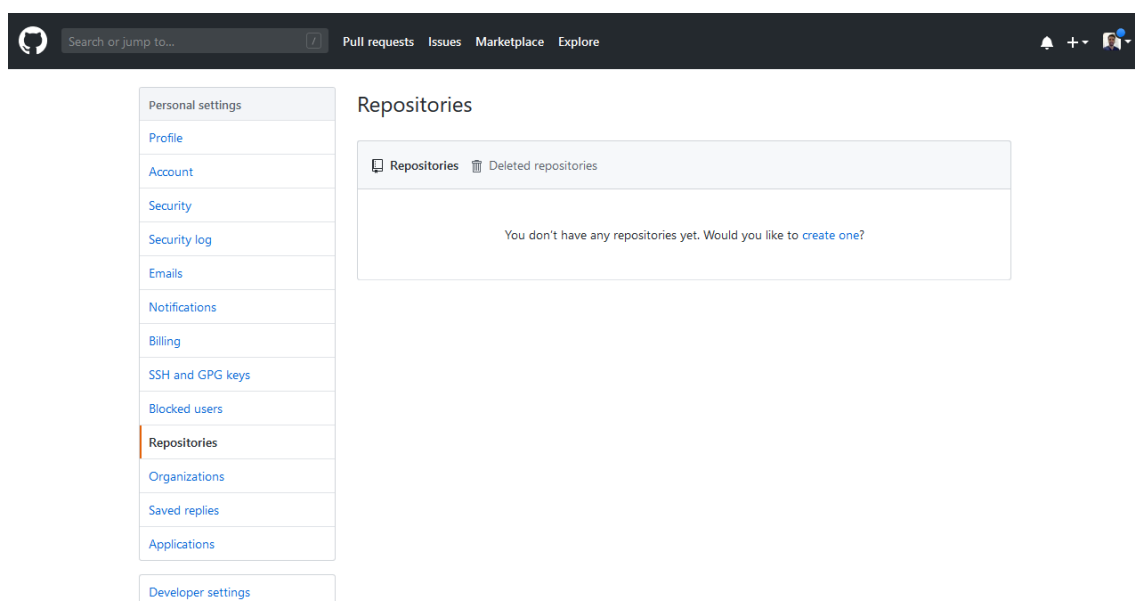
Irei detalhar todo o processo para configuração do TP.

## 2. CONFIGURAÇÃO DE REPOSITÓRIO NO GITHUB

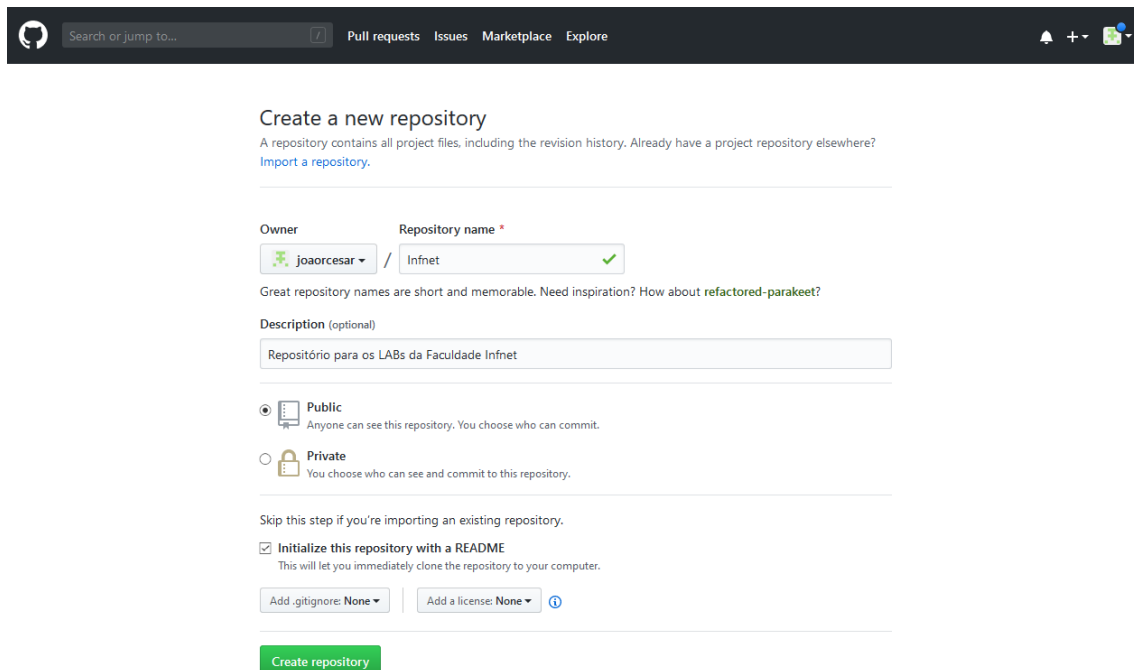
Inicialmente, foi criada uma conta no GitHub, sendo esta configurada da seguinte forma:



Foi criado um repositório público da seguinte forma:

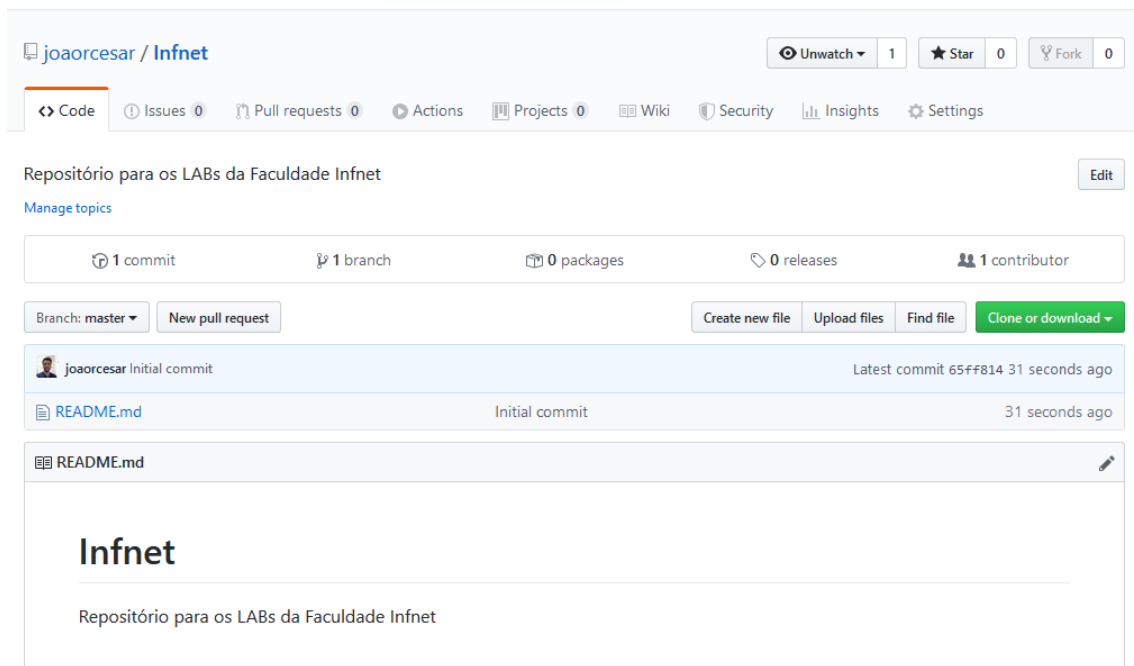


Foi criado um repositório público de nome joaorcesar/infnet.



The screenshot shows the GitHub 'Create a new repository' page. At the top, there's a navigation bar with the GitHub logo, a search bar, and links for Pull requests, Issues, Marketplace, and Explore. The main heading is 'Create a new repository', followed by a subtext: 'A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)'. Below this, the 'Owner' is set to 'joaorcesar' and the 'Repository name' is 'Infnet', with a green checkmark indicating it's valid. A hint suggests repository names should be short and memorable. The 'Description (optional)' field contains 'Repositório para os LABs da Faculdade Infnet'. Under 'Visibility', 'Public' is selected, with a note: 'Anyone can see this repository. You choose who can commit.' The 'Private' option is also visible. A note says 'Skip this step if you're importing an existing repository.' The 'Initialize this repository with a README' checkbox is checked, with a note: 'This will let you immediately clone the repository to your computer.' Below this are dropdowns for '.gitignore' (set to 'None') and 'Add a license' (set to 'None'). A green 'Create repository' button is at the bottom.

Foi concluída a criação com sucesso.



The screenshot shows the GitHub repository page for 'joaorcesar / Infnet'. The repository is public, with 1 star and 0 forks. The 'Code' tab is selected, showing the repository name and a link to 'Manage topics'. Below this, statistics show 1 commit, 1 branch, 0 packages, 0 releases, and 1 contributor. A 'New pull request' button is visible. The 'Branch: master' dropdown is set to 'master'. A 'Clone or download' button is present. The repository content shows the 'Initial commit' by 'joaorcesar' 31 seconds ago, with a 'README.md' file. The README content is visible, showing the title 'Infnet' and the description 'Repositório para os LABs da Faculdade Infnet'.

<https://github.com/joaorcesar/Infnet>

### 3. INSTALANDO CLIENTE GIT NO DEBIAN

Foi instalado o cliente GIT na máquina Debian da seguinte forma:

```
root@SRVLNX01:~# apt-get install git
```

```
Preparing to unpack .../0-perl-modules-5.28_5.28.1-6_all.deb ...
Unpacking perl-modules-5.28 (5.28.1-6) ...
Selecting previously unselected package libgdbm6:amd64.
Preparing to unpack .../1-libgdbm6_1.18.1-4_amd64.deb ...
Unpacking libgdbm6:amd64 (1.18.1-4) ...
Selecting previously unselected package libgdbm-compat4:amd64.
Preparing to unpack .../2-libgdbm-compat4_1.18.1-4_amd64.deb ...
Unpacking libgdbm-compat4:amd64 (1.18.1-4) ...
Selecting previously unselected package libperl5.28:amd64.
Preparing to unpack .../3-libperl5.28_5.28.1-6_amd64.deb ...
Unpacking libperl5.28:amd64 (5.28.1-6) ...
Selecting previously unselected package perl.
Preparing to unpack .../4-perl_5.28.1-6_amd64.deb ...
Unpacking perl (5.28.1-6) ...
Selecting previously unselected package liberror-perl.
Preparing to unpack .../5-liberror-perl_0.17027-2_all.deb ...
Unpacking liberror-perl (0.17027-2) ...
Selecting previously unselected package git-man.
Preparing to unpack .../6-git-man_1%3a2.20.1-2_all.deb ...
Unpacking git-man (1:2.20.1-2) ...
Selecting previously unselected package git.
Preparing to unpack .../7-git_1%3a2.20.1-2_amd64.deb ...
Unpacking git (1:2.20.1-2) ...
Selecting previously unselected package patch.
Preparing to unpack .../8-patch_2.7.6-3+deb10u1_amd64.deb ...
Unpacking patch (2.7.6-3+deb10u1) ...
Setting up perl-modules-5.28 (5.28.1-6) ...
Setting up patch (2.7.6-3+deb10u1) ...
Setting up git-man (1:2.20.1-2) ...
Setting up libgdbm6:amd64 (1.18.1-4) ...
Setting up libgdbm-compat4:amd64 (1.18.1-4) ...
Setting up libperl5.28:amd64 (5.28.1-6) ...
Setting up perl (5.28.1-6) ...
Setting up liberror-perl (0.17027-2) ...
Setting up git (1:2.20.1-2) ...
Processing triggers for libc-bin (2.28-10) ...
root@SRVLNX01:~#
```

### 4. IMPORTANDO A KEY NO GITHUB

Foi criada uma nova chave de nome ID\_RSA.pub:

```
administrator@SRVLNX01:~/.ssh$ cat id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQACxcI+q66RHnuXt1R1ZUyaMtEJ842w009yRR0I93zc74MN809NDp6ydgzBxrCHO
wL0fShz0W8FRn+eDKsj4C4cFEIxnqAKw0WpqQ5tyeDC8euz0NY/SBC+V90ZPTs0yMgsudkaaH1/3MFHByseGUwjYgGaCjo05LvEh
ye3inVfTobG8XxMejI3sWI+c6DfV63SQkg7Jsr1nwEE4bG3D8g/d9qUkJFW3PYLe5gde7BJWtnJhaxhp1jWAnpuLQXMB113d2zqD
/c00UIoI6iZ1jpxYU2Ju4wHJoEJMb1D8BHwVm0POsIu1faGvZD3MRLUadyouhhfUz7q1qbaU91uEOx7F administrator@SRVLN
X01
administrator@SRVLNX01:~/.ssh$ _
```

Foi copiada a chave e adicionada no diretório/repositório GitHub:

The screenshot shows the GitHub interface for the repository 'joaorcesar / Infnet'. The left sidebar contains navigation links: Options, Collaborators, Branches, Webhooks, Notifications, Integrations & services, **Deploy keys**, Secrets, and Actions. Below these are 'Moderation' and 'Interaction limits'. The main content area is titled 'Deploy keys / Add new'. It has a 'Title' field with the value 'administrator@SRVLNX01'. The 'Key' field contains a long SSH key starting with 'ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQACld+q66RHnuXt1R1ZUyaMteJ842w0O9yRROI93zc74MN809NDp6ydgz'. There is a checkbox for 'Allow write access' which is checked, with a note: 'Can this key be used to push to this repository? Deploy keys always have pull access.' At the bottom is a green 'Add key' button.

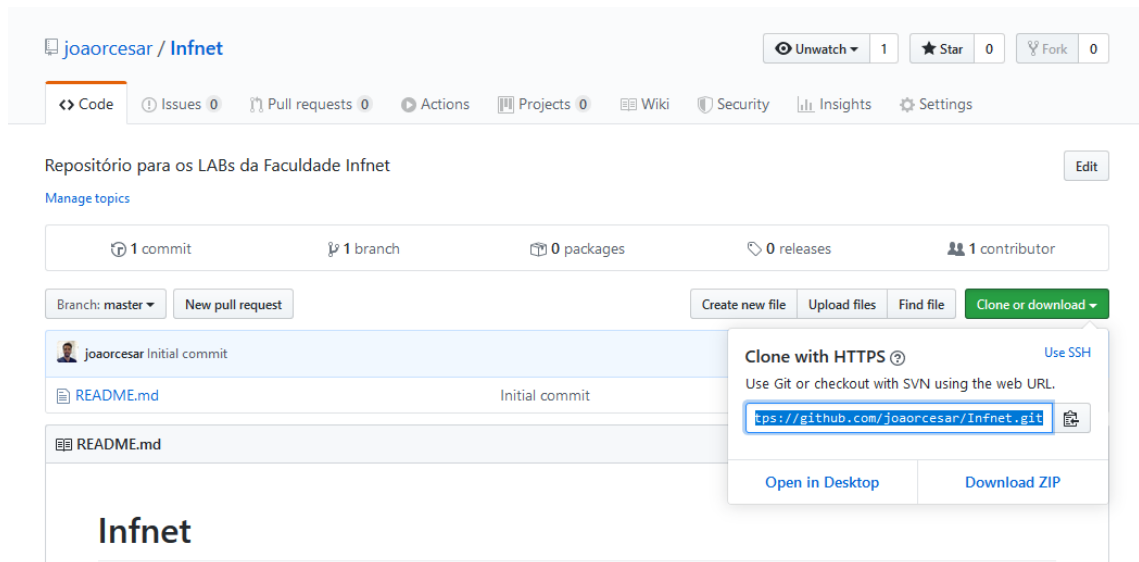
Chave administrato@SRVLNX01 criada no repositório Infnet

The screenshot shows the GitHub interface for the repository 'joaorcesar / Infnet', specifically the 'Deploy keys' page. The left sidebar is the same as in the previous screenshot, with 'Deploy keys' highlighted. The main content area is titled 'Deploy keys' and has an 'Add deploy key' button in the top right. It displays a single deploy key entry for 'administrator@SRVLNX01'. The entry includes a key icon, the key name, the fingerprint '72:9d:7a:18:33:9b:f6:27:93:bb:07:7b:42:e3:e1:cc', the text 'Added on 17 Dec 2019 by @joaorcesar', and the status 'Never used — Read/write'. A 'Delete' button is located to the right of the entry.

## 5. CONFIGURANDO O CLIENTE GIT

Foi configurado o cliente Git no servidor SRVLNX01, com sistema operacional Debian.

Copiamos o link para conectividade ao repositório público do GitHub, através do link Clone, conforme imagem abaixo:



Configuramos o usuário *administrator* no cliente Git e o email *administrator@SRVLNX01*:

```
administrator@SRVLNX01:/etc/ansible$  
administrator@SRVLNX01:/etc/ansible$ git config --global user.name "administrator"  
administrator@SRVLNX01:/etc/ansible$ git config --global user.email "administrator@SRVLNX01"
```

Através do comando *git clone*, configuramos a integração entre o cliente Git no servidor SRVLNX01 com o repositório público *https://github.com/joaorcesar/infnet.git*

```
administrator@SRVLNX01:/etc/ansible$ git clone https://github.com/joaorcesar/Infnet.git  
Cloning into 'Infnet'...  
remote: Enumerating objects: 3, done.  
remote: Counting objects: 100% (3/3), done.  
remote: Compressing objects: 100% (2/2), done.  
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0  
Unpacking objects: 100% (3/3), done.  
administrator@SRVLNX01:/etc/ansible$ ls  
ansible.cfg  hosts  Infnet  playbooks  roles  
administrator@SRVLNX01:/etc/ansible$
```

Após a conexão estabelecida, executamos o comando *git init* para criação de um novo repositório, depois foi adicionado ao index com o comando *git add*. Após conclusão do processo, foi confirmada as mudanças através do comando *git commit -m "Ansible Config Files"*. Após conclusão de todo o processo, vamos enviar os arquivos para o repositório remoto do GitHub através do comando *git push -u origin master*

```
administrator@SRVLNX01:/etc/ansible/Infnet$ ls
ansible.cfg hosts playbooks README.md roles
administrator@SRVLNX01:/etc/ansible/Infnet$ ls playbooks/
playbooks.yml
administrator@SRVLNX01:/etc/ansible/Infnet$ git init .
Reinitialized existing Git repository in /etc/ansible/Infnet/.git/
administrator@SRVLNX01:/etc/ansible/Infnet$ git add .
administrator@SRVLNX01:/etc/ansible/Infnet$ git commit -m "Ansible Config Files"
[master 14f2838] Ansible Config Files
3 files changed, 505 insertions(+)
create mode 100755 ansible.cfg
create mode 100755 hosts
create mode 100755 playbooks/playbooks.yml
administrator@SRVLNX01:/etc/ansible/Infnet$ git push -u origin master
Username for 'https://github.com': joaorcesar
Password for 'https://joaorcesar@github.com':
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 2 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 8.29 KiB | 4.14 MiB/s, done.
Total 6 (delta 0), reused 0 (delta 0)
To https://github.com/joaorcesar/Infnet.git
65ff814..14f2838 master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
administrator@SRVLNX01:/etc/ansible/Infnet$
```

Após execução do comando, foi verificado que o diretório público estava com os arquivos do meu Playbook cria localmente na máquina.

The screenshot shows the GitHub interface for the repository 'joaorcesar / Infnet'. At the top, there are navigation tabs: Code, Issues (0), Pull requests (0), Actions, Projects (0), Wiki, Security, Insights, and Settings. Below the repository name, it says 'Repositório para os LABs da Faculdade Infnet' with an 'Edit' button. A summary bar shows '2 commits', '1 branch', '0 packages', '0 releases', and '1 contributor'. Below this, there are buttons for 'Branch: master', 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. A commit history table is displayed with the following data:

Commit	Message	Time
administrator and administrator	Ansible Config Files	4 minutes ago
playbooks	Ansible Config Files	4 minutes ago
README.md	Initial commit	3 hours ago
ansible.cfg	Ansible Config Files	4 minutes ago
hosts	Ansible Config Files	4 minutes ago

Below the commit history, there is a section for the 'README.md' file, which contains the text 'Infnet'.



## 6. CONFIGURANDO O CLIENTE GIT

Foi realizada uma alteração do simples para verificação do controle de versão dos arquivos no repositório público.

Para tal, foi executado os comandos `git add` e `git commit -m "Ansible Config Alteracao Simples"` para alterar localmente.

Após a alteração, foi executado o comando para copiar os arquivos para o repositório do GitHub através do comando `git push -u origin master`

```
administrator@SRVLNX01:/etc/ansible/Infnet$ git add .
administrator@SRVLNX01:/etc/ansible/Infnet$ git commit -m "Ansible Config Alteracao Simples"
[master 44916c2] Ansible Config Alteracao Simples
1 file changed, 1 insertion(+)
administrator@SRVLNX01:/etc/ansible/Infnet$ git push -u origin master
Username for 'https://github.com': joaorcesar
Password for 'https://joaorcesar@github.com':
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 2 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 375 bytes | 125.00 KiB/s, done.
Total 4 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/joaorcesar/Infnet.git
   14f2838..44916c2  master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
administrator@SRVLNX01:/etc/ansible/Infnet$
```

Após execuções do comando, vemos a última versão disponível no repositório com a alteração que foi realizada.

Repositório para os LABs da Faculdade Infnet Edit

[Manage topics](#)

3 commits 1 branch 0 packages 0 releases 1 contributor

Branch: master New pull request Create new file Upload files Find file Clone or download

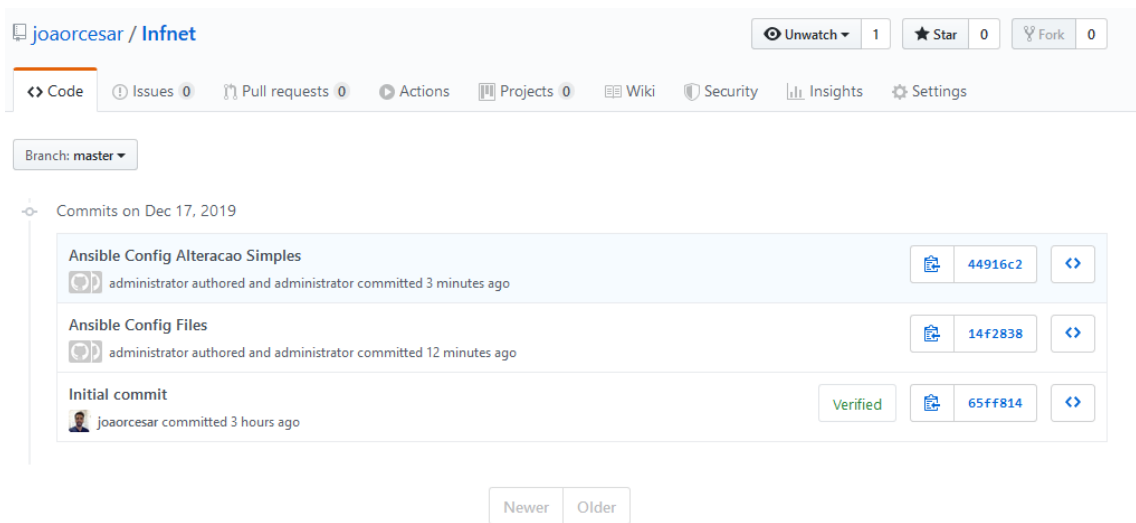
administrator and administrator Ansible Config Alteracao Simples		Latest commit 44916c2 2 minutes ago
playbooks	Ansible Config Alteracao Simples	2 minutes ago
README.md	Initial commit	3 hours ago
ansible.cfg	Ansible Config Files	11 minutes ago
hosts	Ansible Config Files	11 minutes ago

README.md

# Infnet

Repositório para os LABs da Faculdade Infnet

É possível também, verificar que podemos ter o controle das versões, sabendo quem e que foi alterado, acessando o **Commits**.



## 7. LINK DE ACESSO AO GITHUB

Segue abaixo o link para acesso ao GitHub criado para esse lab.

<https://github.com/joaorcesar/Infnet>

## **8. CONSIDERAÇÕES FINAIS**

A TP foi realizada dentro da minha experiência, apresentando ideias e conceitos aprendidos ao longo da minha carreira profissional.

A realização do projeto contou com o apoio de alguns profissionais que trabalham com Linux, exaustivas pesquisas na internet sobre o sistema operativo, além do material disponibilizado pelo professor.

Utilizei o mesmo LAB criado no TP2, onde criamos uma Playbook para instalação do Apache.

## **9. REFERENCIAS TÉCNICAS**

Para prepara o documento, foram usadas as seguintes fontes de pesquisa:

<https://blog.rocketseat.com.br/iniciando-com-git-github/>

[https://rogerdudler.github.io/git-guide/index.pt\\_BR.html](https://rogerdudler.github.io/git-guide/index.pt_BR.html)