

ESCOLA SUPERIOR DE TECNOLOGIA DA INFORMAÇÃO



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| Graduação: | GESTÃO DA TECNOLOGIA DA INFORMAÇÃO |
| Bloco: | Arquitetura de Infraestrutura e Aplicações |
| Matéria: | Projeto de Bloco |
| Referência: | TP2 e TP3 |
| Turma: | GRLGTI01C2-N2-L1 |
| Aluno: | Silney Alvarenga Lopes |

Sumário

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1. Introdução

Objetivo neste documento é responder as questões colocadas no TP2 e TP3 do Projeto de Bloco.

2. TP2 e TP3

Continuando nosso projeto, a instalação de um Wordpress fará parte da implementação de um ERP, portanto nosso projeto será instalar o Ansible e subir o Wordpress Central com Ansible e hospedar seus códigos no repositório público do GitHub.

2.1. Instalamos o SSH nos dois servidores (PB-Ansible e PB-WordPress)

```
Terminal
silney@silney-Infnet: ~
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

silney@silney-Infnet:~$ sudo apt-get install openssh-server
[sudo] senha para silney:
Lendo listas de pacotes... Pronto
Construindo árvore de dependências
Lendo informação de estado... Pronto
The following additional packages will be installed:
ncurses-term openssh-sftp-server ssh-import-id
Pacotes sugeridos:
ssh-askpass rssh molly-guard monkeysphere
Os NOVOS pacotes a seguir serão instalados:
ncurses-term openssh-server openssh-sftp-server ssh-import-id
0 pacotes atualizados, 4 pacotes novos instalados, 0 a serem removidos e 188 não
```

2.2. Instalando o ANSIBLE e conferindo a versão

```
silney@silney-Infnet:~$ sudo apt-add-repository ppa:ansible/ansible
[sudo] senha para silney:
Ansible is a radically simple IT automation platform that makes your applications and systems easier to deploy. Avoid writing scripts or custom code to deploy and update your applications-- automate in a language that approaches plain English, using SSH, with no agents to install on remote systems.
http://ansible.com/

If you face any issues while installing Ansible PPA, file an issue here:
https://github.com/ansible-community/ppa/issues
Mais informações: https://launchpad.net/~ansible/archive/ubuntu/ansible
Pressione [ENTER] para continuar ou ctrl-c para cancelar a adição

gpg: chaveiro '/tmp/tmp1h2295b/seccring.gpg' criado
gpg: chaveiro '/tmp/tmp1h2295b/pubring.gpg' criado
gpg: requisitando chave pública de servidor hkp - keyserver.ubuntu.com
gpg: /tmp/tmp1h2295b/trustdb.gpg: banco de dados de confiabilidade criado
gpg: chave 78B9C367: chave pública "Launchpad PPA for Ansible, Inc." importada
gpg: Numero total processado: 1
gpg: importados: 1 (RSA: 1)
OK
silney@silney-Infnet:~$ sudo apt-get update
Obter:1 http://ppa.launchpad.net/ansible/ansible/ubuntu xenial InRelease [18,0 kB]
Atendido:2 http://br.archive.ubuntu.com/ubuntu xenial InRelease
Obter:3 http://security.ubuntu.com/ubuntu xenial-security InRelease [99,8 kB]
Obter:4 http://br.archive.ubuntu.com/ubuntu xenial-updates InRelease [99,8 kB]
Obter:5 http://br.archive.ubuntu.com/ubuntu xenial-backports InRelease [97,4 kB]
Obter:6 http://br.archive.ubuntu.com/ubuntu xenial-updates/main amd64 DEP-11 Metadata [327 kB]
Obter:7 http://br.archive.ubuntu.com/ubuntu xenial-updates/universe amd64 DEP-11 Metadata [281 kB]
Obter:8 http://br.archive.ubuntu.com/ubuntu xenial-updates/multiverse amd64 DEP-11 Metadata [5,956 B]
Obter:9 http://br.archive.ubuntu.com/ubuntu xenial-backports/main amd64 DEP-11 Metadata [3,328 B]
Obter:10 http://br.archive.ubuntu.com/ubuntu xenial-backports/universe amd64 DEP-11 Metadata [6,608 B]
Obter:11 http://ppa.launchpad.net/ansible/ansible/ubuntu xenial/main amd64 Packages [704 B]
Obter:12 http://ppa.launchpad.net/ansible/ansible/ubuntu xenial/main 1386 Packages [704 B]
Obter:13 http://ppa.launchpad.net/ansible/ansible/ubuntu xenial/main Translation-en [472 B]
Baixados 940 kB em 2s (422 kB/s)
Lendo listas de pacotes... Pronto
silney@silney-Infnet:~$ sudo apt-get install ansible
Lendo listas de pacotes... Pronto
Construindo árvore de dependências
Lendo informação de estado... Pronto
The following additional packages will be installed:
python-cffi-backend python-crypto python-cryptography python-ecdsa python-enum34 python-httplib2 python-idna python-ipaddress python-jinja2 python-markupsafe python-paramiko
python-pkg-resources python-pyasn1 python-setuptools python-six python-yaml sshpass
Pacotes sugeridos:
python-crypto-dbg python-crypto-doc python-cryptography-doc python-cryptography-vectors python-enum34-doc python-jinja2-doc python-setuptools-doc
Os NOVOS pacotes a seguir serão instalados:
ansible python-cffi-backend python-crypto python-cryptography python-ecdsa python-enum34 python-httplib2 python-idna python-ipaddress python-jinja2 python-markupsafe python-paramiko
python-pkg-resources python-pyasn1 python-setuptools python-six python-yaml sshpass
0 pacotes atualizados, 18 pacotes novos instalados, 0 a serem removidos e 188 não atualizados.
É preciso baixar 7.155 kB de arquivos.
Depois desta operação, 65,5 MB adicionais de espaço em disco serão usados.
Você quer continuar? [S/n] s
Obter:1 http://br.archive.ubuntu.com/ubuntu xenial/main amd64 python-markupsafe amd64 0.23-2build2 [15,5 kB]
Obter:2 http://br.archive.ubuntu.com/ubuntu xenial-updates/main amd64 python-jinja2 all 2.8-1ubuntu0.1 [186 kB]
Obter:3 http://br.archive.ubuntu.com/ubuntu xenial/main amd64 python-yaml amd64 3.11-3build1 [105 kB]
Obter:4 http://br.archive.ubuntu.com/ubuntu xenial-updates/main amd64 python-crypto amd64 2.6.1-6ubuntu0.16.04.3 [246 kB]
Obter:5 http://br.archive.ubuntu.com/ubuntu xenial/main amd64 python-six all 1.10.0-3 [10,9 kB]
Obter:6 http://br.archive.ubuntu.com/ubuntu xenial-updates/main amd64 python-ecdsa all 0.13-2ubuntu0.16.04.1 [36,2 kB]
Obter:7 http://br.archive.ubuntu.com/ubuntu xenial-updates/main amd64 python-paramiko all 1.16.0-1ubuntu0.2 [110 kB]
Obter:8 http://br.archive.ubuntu.com/ubuntu xenial/main amd64 python-httplib2 all 0.9.1-dfsg-1 [24,2 kB]
Obter:9 http://br.archive.ubuntu.com/ubuntu xenial/main amd64 python-pkg-resources all 20.7.0-1 [108 kB]
Obter:10 http://br.archive.ubuntu.com/ubuntu xenial/main amd64 python-setuptools all 20.7.0-1 [169 kB]
Obter:11 http://br.archive.ubuntu.com/ubuntu xenial/universe amd64 sshpass amd64 1.05-1 [110,5 kB]
silney@silney-Infnet:~$ ansible --version
ansible 2.9.27
config file = /etc/ansible/ansible.cfg
configured module search path = [u'/home/silney/.ansible/plugins/modules', u'/usr/share/ansible/plugins/modules']
ansible python module location = /usr/lib/python2.7/dist-packages/ansible
executable location = /usr/bin/ansible
python version = 2.7.12 (default, Jul 21 2020, 15:19:50) [GCC 5.4.0 20160609]
silney@silney-Infnet:~$
```

2.4. Construindo playbook

O playbook foi construído e enviado para o diretório chamado **PBInfnet** via GitHub (será demonstrado)

```
silney@silney-infnet:~/PBInfnet$ ls
{changed: hosts 'MicrosoftTeams-image (66).png' playbook.yml README.md roles
```

2.5. Executando o playbook

```
silney@silney-infnet:~$ cd PBInfnet/
silney@silney-infnet:~/PBInfnet$ ansible-playbook playbook.yml --ask-become-pass
BECOME password:

PLAY [wordpress] *****
TASK [Gathering Facts] *****
ok: [192.168.31.35]

TASK [server : Atualiza apt cache] *****
ok: [192.168.31.35]

TASK [server : Instalar pacotes do servidor] *****
ok: [192.168.31.35] => (item=apache2)
ok: [192.168.31.35] => (item=mysql-server)
ok: [192.168.31.35] => (item=php8.1-mysql)
ok: [192.168.31.35] => (item=php8.1)
ok: [192.168.31.35] => (item=libapache2-mod-php8.1)
ok: [192.168.31.35] => (item=python3-pymysql)

TASK [php : Instala as extensoes do PHP 7.4] *****
ok: [192.168.31.35] => (item=php8.1-gd)
ok: [192.168.31.35] => (item=php-ssh2)

TASK [mysql : Cria banco de dados do wordpress] *****
changed: [192.168.31.35]

TASK [mysql : Cria o usuario do banco de dados wordpress] *****
changed: [192.168.31.35]

TASK [wordpress : Baixar WordPress] *****
changed: [192.168.31.35]

TASK [wordpress : Extrair WordPress] *****
changed: [192.168.31.35]

TASK [wordpress : Atualizar site Apache] *****
changed: [192.168.31.35]

TASK [wordpress : Copy sample config file] *****
changed: [192.168.31.35]

TASK [wordpress : Update WordPress config file] *****
changed: [192.168.31.35] => (item={'regex': 'database_name_here', 'line': "define('DB_NAME', 'wordpress');"})
changed: [192.168.31.35] => (item={'regex': 'username_here', 'line': "define('DB_USER', 'wordpress');"})
changed: [192.168.31.35] => (item={'regex': 'password_here', 'line': "define('DB_PASSWORD', 'wp_db_password');"})

RUNNING HANDLER [wordpress : restart apache] *****
changed: [192.168.31.35]


PLAY RECAP *****
192.168.31.35 : ok=12 changed=8 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0

silney@silney-infnet:~/PBInfnet$
```

2.6. Testando se o Wordpress está no ar

Não seguro | 192.168.31.35/wp-admin/install.php

Particular WLM



Welcome

Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.

Information needed

Please provide the following information. Do not worry, you can always change these settings later.

Site Title

Username
Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

Password [Show](#)
Very weak
Important: You will need this password to log in. Please store it in a secure location.

Confirm Password ☒ Confirm use of weak password


Your Email
Double-check your email address before continuing.

Search engine visibility ☒ Discourage search engines from indexing this site
It is up to search engines to honor this request.

[Install WordPress](#)

192.168.31.35/wp-admin/install.php?step=2

WLM



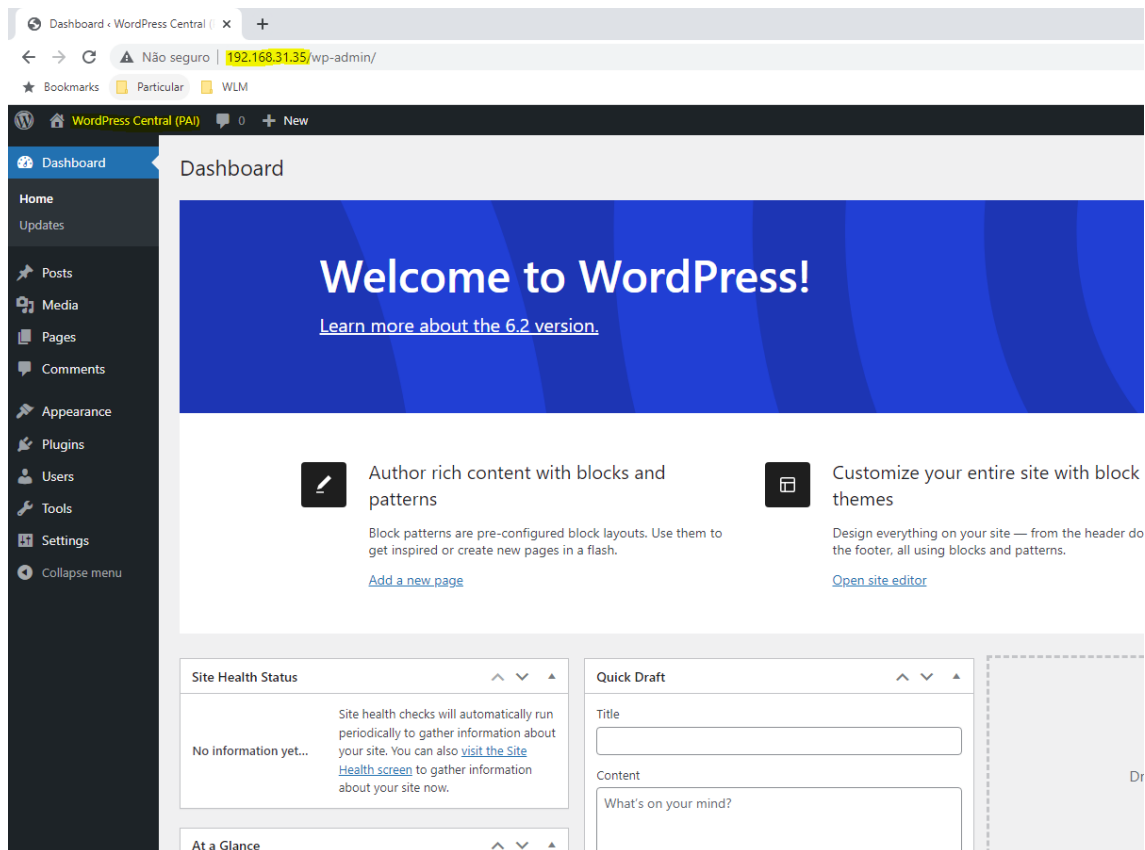
Success!

WordPress has been installed. Thank you, and enjoy!

Username silney

Password *Your chosen password.*

[Log In](#)





2.7.GitHub

Agora iremos criar um repositório no GitHub com o nome PBInfnet:

Create a new repository


A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)


Owner * Repository name *

 silneylopes / PBInfnet 

Great repository names are short and memorable. Need inspiration? How about **potential-octo-robot**?

Description (optional)

☒  **Public**
Anyone on the internet can see this repository. You choose who can commit.

☐  **Private**
You choose who can see and commit to this repository.

Initialize this repository with:
Skip this step if you're importing an existing repository.


☐ **Add a README file**
This is where you can write a long description for your project. [Learn more.](#)

Add .gitignore
Choose which files not to track from a list of templates. [Learn more.](#)

.gitignore template: None ▾

Choose a license
A license tells others what they can and can't do with your code. [Learn more.](#)

License: None ▾

 You are creating a public repository in your personal account.

[Create repository](#)

Os códigos foram construídos no github e feito o PULL para o servidor

```
silney@silney-infnet:~/PBInfnet$ git push
Enumerating objects: 45, done.
Counting objects: 100% (40/40), done.
Delta compression using up to 2 threads
Compressing objects: 100% (19/19), done.
Writing objects: 100% (23/23), 2.23 KiB | 380.00 KiB/s, done.
Total 23 (delta 8), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (8/8), completed with 5 local objects.
To https://github.com/silneylopes/PBInfnet.git
   f347fed..b4187e8  main -> main
silney@silney-infnet:~/PBInfnet$ git pull
Already up to date.
silney@silney-infnet:~/PBInfnet$
```

Para conferir os códigos, segue o link do repositório:

<https://github.com/silneylopes/PBInfnet.git>

3. Conclusão

Nestes TPs, vimos o Ansible como ferramenta de configuração e automatização para servidores e devops e o GitHub como ferramenta de documentação, versionamento e colaboração de códigos.