

Laboratório 5 - Gerência de redes

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Instalação do Apache

```
root@xxxx-370E4K:/home/xxxx# apt-get install apache2 -y
Lendo listas de pacotes... Pronto
```

Ativando inicialização automática

```
root@xxxx-370E4K:/home/xxxx# systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable apache2
```

Liberando o Apache no firewall

```
root@xxxx-370E4K:/home/xxxx# systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable apache2
root@xxxx-370E4K:/home/xxxx# ufw allow http
Regras atualizadas
Regras atualizadas (v6)
root@xxxx-370E4K:/home/xxxx# ufw status numbered
Estado: inativo
```

Instalando o PHP

```
root@xxxx-370E4K:/home/xxxx# apt-get install php libapache2-mod-php php-mysql php-cli php-gd -y
Lendo listas de pacotes... Pronto
Construindo árvore de dependências
Lendo informação de estado... Pronto
```

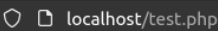
```
root@xxxx-370E4K:/home/xxxx# php -v
PHP 7.4.3-4ubuntu2.18 (cli) (built: Feb 23 2023 12:43:23) ( NTS )
Copyright (c) The PHP Group
Zend Engine v3.4.0, Copyright (c) Zend Technologies
    with Zend OPcache v7.4.3-4ubuntu2.18, Copyright (c), by Zend Technologies
```

Modificando apache para buscar arquivo index.php


```
<IfModule mod_dir.c>
    DirectoryIndex index.php index.cgi index.pl index.php index.xhtml index.htm
</IfModule>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet
```

testando php



PHP Version 7.4.3-4ubuntu2.18



System	Linux xxxx-370E4K 5.15.0-71-generic #78~20.04.1-Ubuntu SMP Wed Apr 19 11:26:48 UTC 2023 x86_64
Build Date	Feb 23 2023 12:43:23
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php/7.4/apache2

Instalando MySQL

```
root@xxxx-370E4K:/var/www/html# apt install mysql-server mysql-client -y
Lendo listas de pacotes... Pronto
Construindo árvore de dependências
Lendo informação de estado... Pronto

root@xxxx-370E4K:/var/www/html# systemctl status mysql
● mysql.service - MySQL Community Server
   Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
   Active: active (running) since Sun 2023-05-07 17:25:54 -03; 3h 46min ago
     Main PID: 16199 (mysqld)
       Status: "Server is operational"
        Tasks: 38 (limit: 9319)
       Memory: 364.7M
        CGroup: /system.slice/mysql.service
                └─16199 /usr/sbin/mysqld

mai 07 17:25:52 xxxx-370E4K systemd[1]: Starting MySQL Community Server...
mai 07 17:25:54 xxxx-370E4K systemd[1]: Started MySQL Community Server.
```

Ativando inicialização automática

```
root@xxxx-370E4K:/var/www/html# systemctl enable mysql
Synchronizing state of mysql.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable mysql
```

Configurando segurança do MySQL

Instalar módulos PHP requeridos pelo cacte

```
root@xxxx-370E4K:/home/xxxx# apt install -y php-xml php-ldap php-mbstring php-gd php-gmp
```

Instalar SNMP

```
root@xxxx-370E4K:/home/xxxx# apt install -y snmp php-snmp rrdtool librrds-perl
```

Ajustar o banco de dados

```
root@xxxx-370E4K:/home/xxxx# nano /etc/mysql/mysql.conf.d/mysqld.cnf
```

[mysqld]

character-set-client-handshake = FALSE

character-set-server = utf8mb4

collation-server = utf8mb4_unicode_ci

join buffer size = 64M

innodb file per table = ON

innodb file format = Barracuda

innodb large prefix = 1

innodb buffer pool size = 512M

innodb lock wait timeout = 50

innodb flush method = O_DIRECT

innodb doublewrite = OFF

innodb flush log at timeout = 3

innodb read io threads = 32

innodb write io threads = 16

innodb buffer pool instances = 3

innodb io capacity = 5000

innodb io capacity max = 10000

Ajustar fuso horário

```
root@xxxx-370E4K:/etc/php/7.4/apache2# nano php.ini
```

```
root@xxxx-370E4K:/etc/php/7.4/cli# nano php.ini
```

date.timezone

memory limit

max execution time

Criando banco de dados para o Cacti

```
xxxx@xxxx-370E4K:~$ mysql -uroot -p
```

```
mysql> create database cacti;  
Query OK, 1 row affected (0,02 sec)
```

```
mysql> create user cacti@localhost identified by 'cacti';  
Query OK, 0 rows affected (0,02 sec)
```

```
mysql> grant all on cacti.* to cacti@localhost;
Query OK, 0 rows affected (0,01 sec)

mysql> flush privileges;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near 'privi
leges' at line 1
```

Configurar o fuso horário do mysql para o usuário do banco de dados do Cacti

Download Cacti

```
root@xxxx-370E4K:/opt# wget https://www.cacti.net/downloads/cacti-1.2.9.tar.gz
--2023-05-08 21:03:59-- https://www.cacti.net/downloads/cacti-1.2.9.tar.gz
Resolvendo www.cacti.net (www.cacti.net) ... 2606:4700:3031::ac43:c46b 2606:4700:303
root@xxxx-370E4K:/opt# tar -xzf cacti-1.2.9.tar.gz
root@xxxx-370E4K:/opt# mv cacti-1.2.9 cacti
```

Configurando o Cacti

```
root@xxxx-370E4K:/opt# mysql -uroot -p cacti < /opt/cacti/cacti.sql
Enter password:
root@xxxx-370E4K:/opt#
```

```
root@xxxx-370E4K:/opt/cacti/include# nano config.php.dist
```

```
$database_type      = 'mysql';
$database_default   = 'cacti';
$database_hostname  = 'localhost';
$database_username  = 'cacti';
$database_password  = 'cacti';
$database_port      = '3306';
$database_retries   = 5;
$database_ssl       = false;
$database_ssl_key   = '';
$database_ssl_cert  = '';
$database_ssl_ca    = '';
```

```
root@xxxx-370E4K:/opt/cacti/include# touch /opt/cacti/log/cacti.log
root@xxxx-370E4K:/opt/cacti/include# chown -R www-data:www-data /opt/cacti/
root@xxxx-370E4K:/opt/cacti/include#
```

Configurando virtual host para o Cacti

```
root@xxxx-370E4K:/opt/cacti/include# nano /etc/apache2/sites-available/cacti.conf
```

```
Alias /cacti /opt/cacti

<Directory /opt/cacti>
    Options +FollowSymLinks
    AllowOverride None
    <IfVersion >= 2.3>
        Require all granted
    </IfVersion>
    <IfVersion < 2.3>
        Order Allow,Deny
        Allow from all
    </IfVersion>

    AddType application/x-httpd-php .php

    <IfModule mod_php.c>
        php flag magic quotes gpc Off
        php flag short open tag On
        php flag register globals Off
        php flag register argc argv On
        php flag track vars On
        php value mbstring.func_overload 0
        php value include path .
    </IfModule>

    DirectoryIndex index.php
</Directory>
```

```
root@xxxx-370E4K:/opt/cacti/include# a2ensite cacti
Enabling site cacti.
To activate the new configuration, you need to run:
systemctl reload apache2
```

Criar agendamento

Instalação web do Cacti

Nesse ponto a instalação não deu certo, então baixei uma imagem do cacti no docker