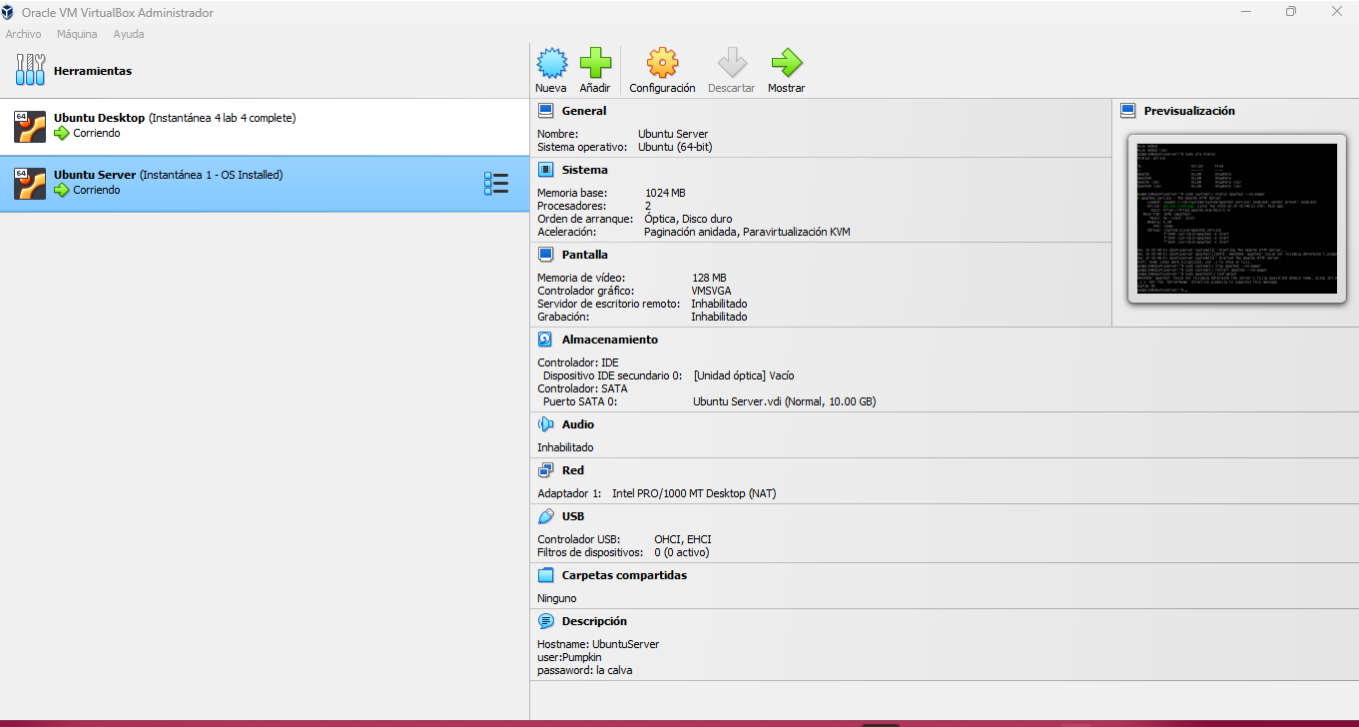


Deliverable 2 Submission

What are the server hardware specifications (virtual machine settings)?
Take a screenshot - don't type it!



What is Ubuntu server log in screen? Take screenshot - do not type it!

```
Ubuntu Server (Instantánea 1 - OS Installed) [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
Ubuntu 22.04.3 LTS ubuntuuserver tty1
ubuntuuserver login: [ 27.186857] cloud-init[849]: Cloud-init v. 23.3.3-0ubuntu0~22.04.1 running 'modules:config' at Tue, 19 Dec 2023 02:42:47 +0000. Up 27.03 seconds.
[ 28.168517] cloud-init[885]: Cloud-init v. 23.3.3-0ubuntu0~22.04.1 running 'modules:final' at Tue, 19 Dec 2023 02:42:48 +0000. Up 28.11 seconds.
[ 28.330490] cloud-init[885]: Cloud-init v. 23.3.3-0ubuntu0~22.04.1 finished at Tue, 19 Dec 2023 02:42:49 +0000. Datasource DataSourceNone. Up 28.31 seconds
[ 28.333681] cloud-init[885]: 2023-12-19 02:42:49,127 - cc_final_message.py[WARNING]: Used fallback datasource

ubuntuuserver login: pumpkin
Password:
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 5.15.0-91-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Tue Dec 19 02:43:29 AM UTC 2023

System load: 0.955078125      Processes:           114
Usage of /:  52.5% of 8.02GB   Users logged in:     0
Memory usage: 22%             IPv4 address for enp0s3: 10.0.2.15
Swap usage:  0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Tue Dec 19 02:26:59 UTC 2023 on tty1
pumpkin@ubuntuuserver:~$
```

What is the IP address of your Ubuntu Server Virtual Machine?

10.0.2.15 IPv4 address for enp0s3: 10.0.2.15

How do you enable the Ubuntu Firewall?

```
Archivo Máquina Ver Entrada Dispositivos Ayuda
pumpkin@ubuntuuserver:~$ sudo ufw enable
Firewall is active and enabled on system startup
pumpkin@ubuntuuserver:~$
```

How do you check if the Ubuntu Firewall is running?

```
pumpkin@ubuntuuserver:~$ sudo ufw status
Status: active

To Action From
--
Apache ALLOW Anywhere
OpenSSH ALLOW Anywhere
Apache (v6) ALLOW Anywhere (v6)
OpenSSH (v6) ALLOW Anywhere (v6)

pumpkin@ubuntuuserver:~$
```

sudo ufw status

How do you disable the Ubuntu Firewall?

```

pumpkin@ubuntuserver:~$ sudo ufw disable
Firewall stopped and disabled on system startup
pumpkin@ubuntuserver:~$

```

How do you add Apache to the Firewall?

```
sudo ufw allow 'Apache'
```

What is the command you used to install Apache?

```
sudo apt install apache2 -y
```

What is the command you use to check if Apache is running?

```
sudo systemctl status apache2 --no-pager
```

```

pumpkin@ubuntuserver:~$ sudo systemctl status apache2 --no-pager
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2023-12-19 02:48:21 UTC; 7min ago
     Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 1598 (apache2)
    Tasks: 55 (limit: 1012)
   Memory: 5.0M
      CPU: 115ms
   CGroup: /system.slice/apache2.service
           └─1598 /usr/sbin/apache2 -k start
             └─1599 /usr/sbin/apache2 -k start
               └─1600 /usr/sbin/apache2 -k start

Dec 19 02:48:21 ubuntuserver systemd[1]: Starting The Apache HTTP Server...
Dec 19 02:48:21 ubuntuserver apache2ctl[1597]: AH00558: apache2: Could not reliably determine t...ssage
Dec 19 02:48:21 ubuntuserver systemd[1]: Started The Apache HTTP Server.
Hint: Some lines were ellipsized, use -l to show in full.
pumpkin@ubuntuserver:~$ _

```

What is the command you use to stop Apache?

```
sudo systemctl stop apache2 --no-pager
```

What is the command you use to restart Apache?

```
sudo systemctl restart apache2 --no-pager
```

```

pumpkin@ubuntuserver:~$ sudo systemctl stop apache2 --no-pager
pumpkin@ubuntuserver:~$ sudo systemctl restart apache2 --no-pager
pumpkin@ubuntuserver:~$ _

```

What is the command used to test Apache configuration?

```
sudo apache2ctl configtest
```

```

pumpkin@ubuntuserver:~$ sudo apache2ctl configtest
AH00558: apache2: Could not reliably determine the server's fully qualified
.1.1. Set the 'ServerName' directive globally to suppress this message
Syntax OK
pumpkin@ubuntuserver:~$

```

What is the command used to check the installed version of Apache?

```
pumpkin@ubuntuserver:~$ apache2 -v
Server version: Apache/2.4.52 (Ubuntu)
Server built:   2023-10-26T13:44:44
pumpkin@ubuntuserver:~$ _
```

apache2 -v

Which are Apache Log Files, and what are they used for? Provide examples and screenshots.

```
pumpkin@ubuntuserver:~$ sudo tail -n 20 /var/log/apache2/error.log
[sudo] password for pumpkin:
[Tue Dec 19 02:48:21.222728 2023] [mpm_event:notice] [pid 1598:tid 140050487269248] AH00489: Apache/
2.4.52 (Ubuntu) configured -- resuming normal operations
[Tue Dec 19 02:48:21.222970 2023] [core:notice] [pid 1598:tid 140050487269248] AH00094: Command line
: '/usr/sbin/apache2'
[Tue Dec 19 02:57:39.568847 2023] [mpm_event:notice] [pid 1598:tid 140050487269248] AH00492: caught
SIGWINCH, shutting down gracefully
[Tue Dec 19 02:59:19.889903 2023] [mpm_event:notice] [pid 2171:tid 140509214734208] AH00489: Apache/
2.4.52 (Ubuntu) configured -- resuming normal operations
[Tue Dec 19 02:59:19.890086 2023] [core:notice] [pid 2171:tid 140509214734208] AH00094: Command line
: '/usr/sbin/apache2'
```