

## 1. Inicié sesión en la consola de AWS

The screenshot shows the AWS Academy dashboard with a dark theme. On the left, there's a sidebar with icons for User (person), Control Panel (clock), and Assignments (book). The main area has a title bar 'ALLv2ES-ES-LTI13-' and a navigation menu with 'Página de inicio', 'Contenidos', 'Foros de discusión', 'Notas', 'Lucid (pizarra)', and 'Asignaturas'. The 'Asignaturas' link is highlighted in blue.

## 2. Entrar a ese enlace

The screenshot shows a landing page for the AWS Academy lab. It features a header 'Laboratorio para el alumnado de AWS Academy' with a dropdown arrow, and a main section titled 'Lanzamiento del Laboratorio para el alumnado de AWS Academy' with a link icon.

## 3. Darle a iniciar y esperar a que cargue

The screenshot shows the AWS Academy lab configuration page. The top navigation bar includes 'Content' and 'AWS'. The left sidebar lists 'Página de inicio', 'Contenidos', 'Foros de discusión', 'Notas', 'Lucid (pizarra)', 'Calendario', 'Bandeja de entrada', 'Historial', and 'Ayuda'. The main content area shows a large blue downward-pointing arrow with a red curved arrow pointing towards it. A right-hand sidebar provides budget information: 'Used \$0.2 of \$50', '04:00', and buttons for 'Start Lab', 'End Lab', 'AWS Details', 'Readme', and 'Reset'. A note at the top right says: 'REMEMBER, if you exceed your usage, your account will be disabled and all progress and resources will be lost. Details on how to monitor your budget are provided above.' Below this, a section titled 'Suggestions to avoid overspending:' lists tips for managing costs.

#### 4. Descargar "Download PEM"

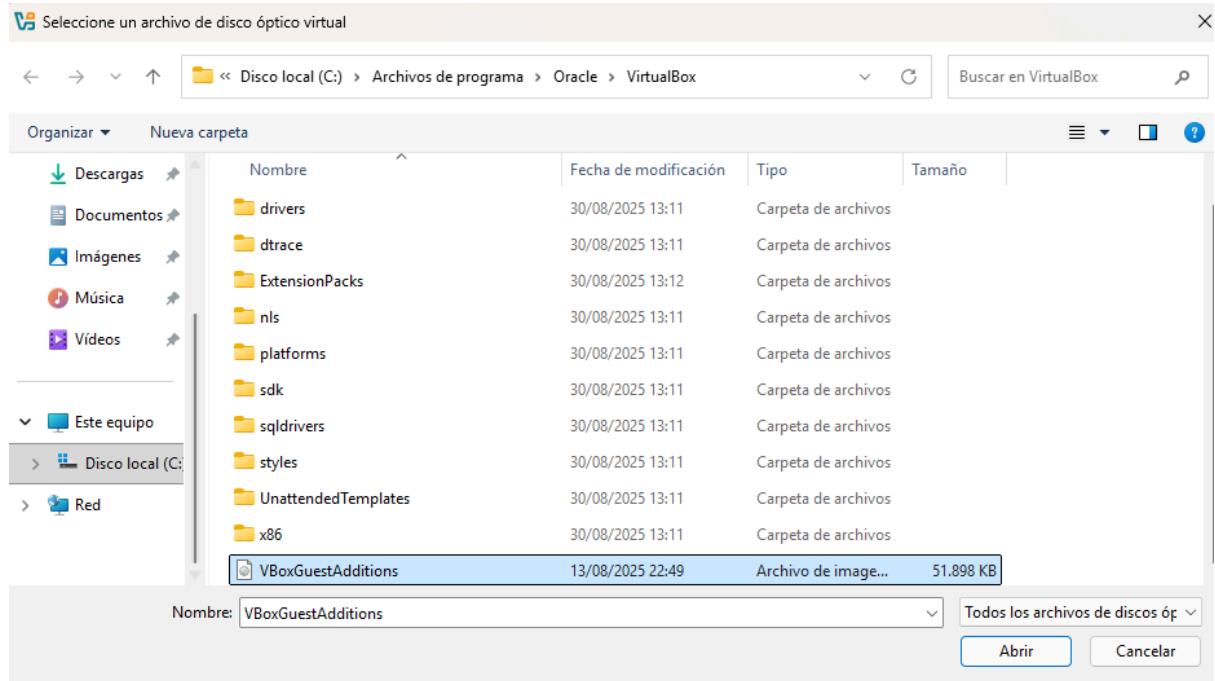
No running instance

SSH key Show Download PEM Download PPK

AWS SSO Download URL

AWSAccountId	634931072053
Region	us-east-1

#### 5. Ir a "Disco local" y buscar el archivo descargado



#### 6. Añadirlo a la maquina virtual

Almacenamiento

Controlador: IDE

Dispositivo IDE primario 0: [Unidad óptica] VBoxGuestAdditions.iso (50,68 MB)

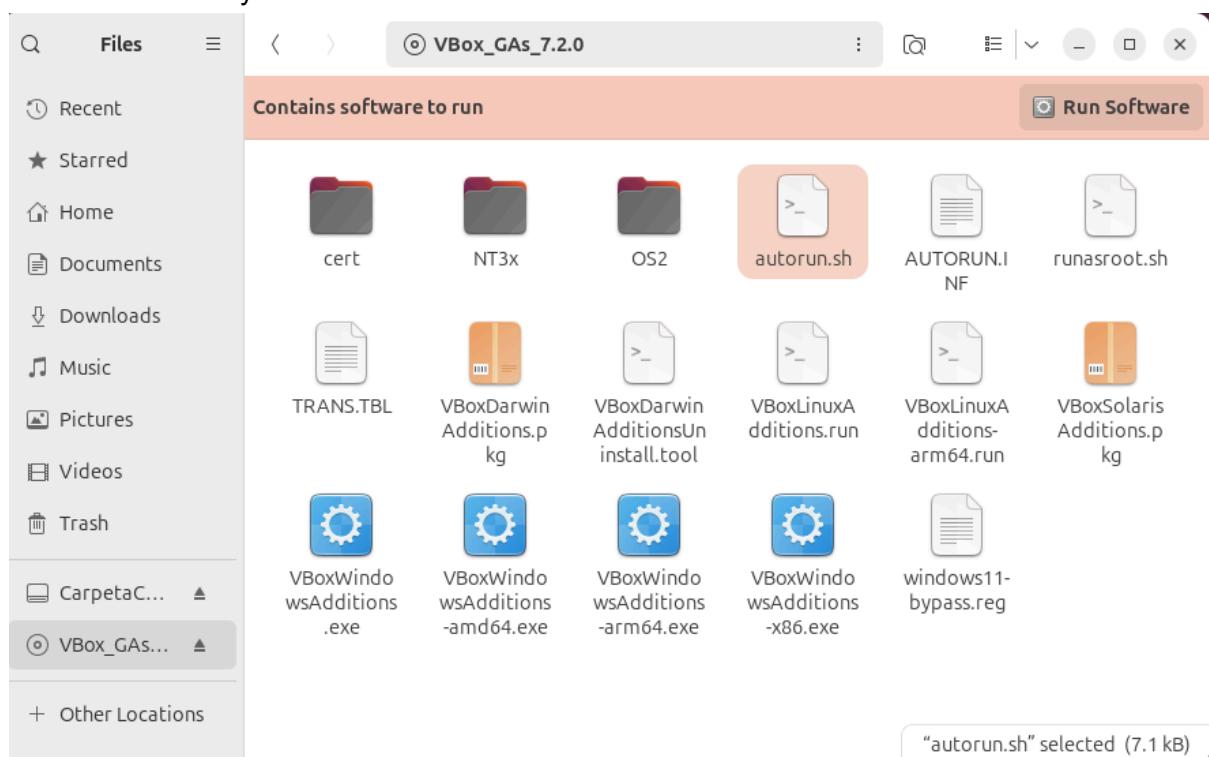
Controlador: SATA

Puerto SATA 0: Ubuntu.vdi (Normal, 25,00 GB)

7.Crear 2 carpetas, 1 en ubuntu y otra en el escritorio



8.Estar a ubuntu y buscar el documento “autorush.sh”



9.Copiar el enlace y ejecutarlo

```
vboxuser@Ubuntu: ~
vboxuser@Ubuntu: ~
VirtualBox Guest Additions installation
vboxuser@Ubuntu:~$ '/media/vboxuser/VBox_GAs_7.2.0/autorun.sh'
```

10.Instalar "bzip2"

```
o  clear
7 sudo apt install bzip2
```

11.Meterse en la carpeta compartida

```
root@Ubuntu: /home/vboxuser/Desktop/CarpetaCompartida
root@Ubuntu:~$ sudo su
[sudo] password for vboxuser:
root@Ubuntu:/home/vboxuser# cd D
Desktop/ Documents/ Downloads/
root@Ubuntu:/home/vboxuser# cd Desktop/
root@Ubuntu:/home/vboxuser/Desktop# cd CarpetaCompartida/
root@Ubuntu:/home/vboxuser/Desktop/CarpetaCompartida# ls
labsuser.pem
root@Ubuntu:/home/vboxuser/Desktop/CarpetaCompartida#
```

12.Buscar el documento descargado

```
root@Ubuntu:/home/vboxuser# cd Downloads
root@Ubuntu:/home/vboxuser/Downloads# cp labsuser.pem ~/.ssh/labsuser.pem
root@Ubuntu:/home/vboxuser/Downloads#
```

13.Verificacion de la descarga

```
root@Ubuntu:/home/vboxuser# chmod 400 ~/.ssh/labsuser.pem
root@Ubuntu:/home/vboxuser# ls -l ~/.ssh/
total 4
-rw----- 1 root root    0 Oct 29 10:22 authorized_keys
-r----- 1 root root 1678 Oct 31 09:24 labsuser.pem
```

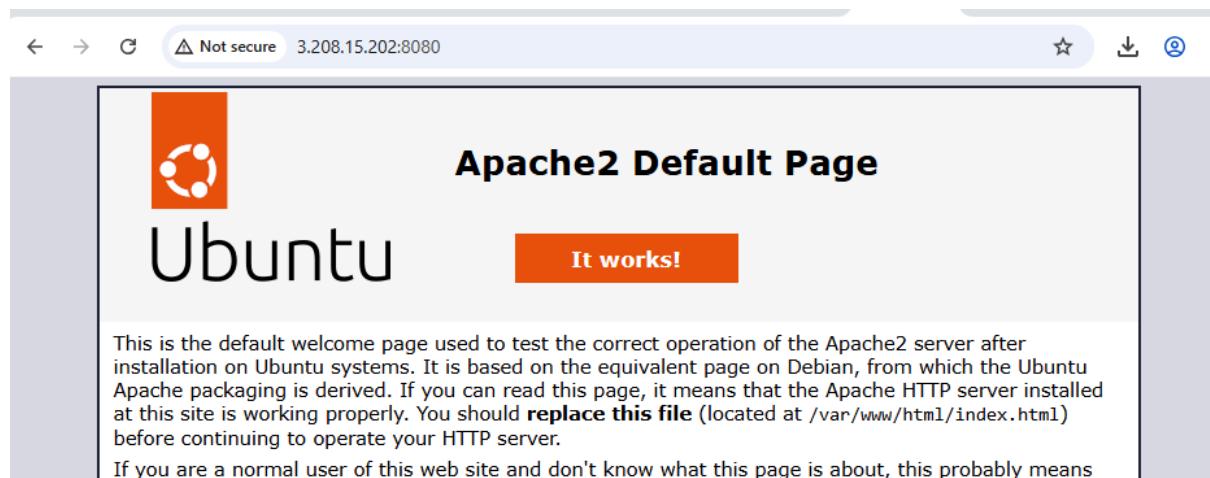
#### 14. Ejecutar ese comando

```
root@Ubuntu:/home/vboxuser# ssh -i ~/.ssh/labsuser.pem ubuntu@3.208.15.202
The authenticity of host '3.208.15.202 (3.208.15.202)' can't be established.
ED25519 key fingerprint is SHA256:rkN1Xw5XN2pbdgJUE0AkXOPqktWHS2bzk620rMCPqDI.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Please type 'yes', 'no' or the fingerprint: y
Please type 'yes', 'no' or the fingerprint: yes
Warning: Permanently added '3.208.15.202' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.14.0-1011-aws x86_64)
```

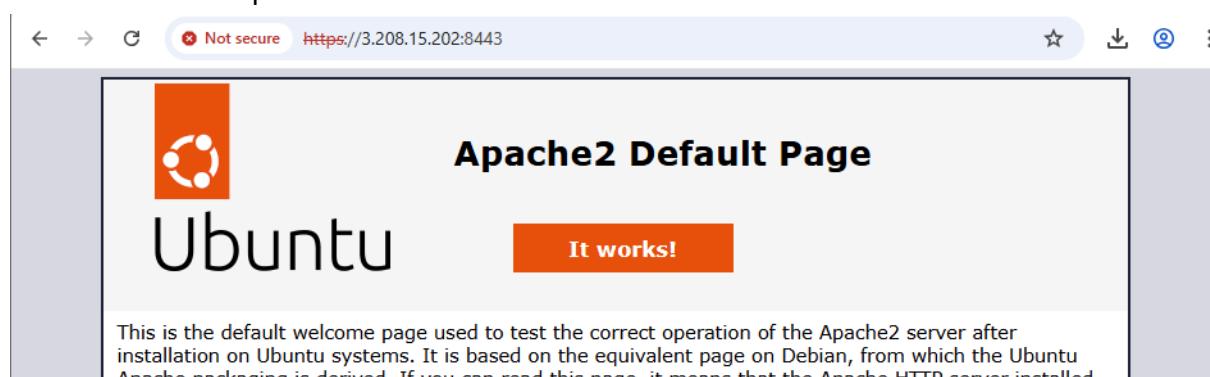
#### 15. Tu IP

```
ubuntu@ip-172-31-17-129:~$
```

#### 16. Verificacion del puerto



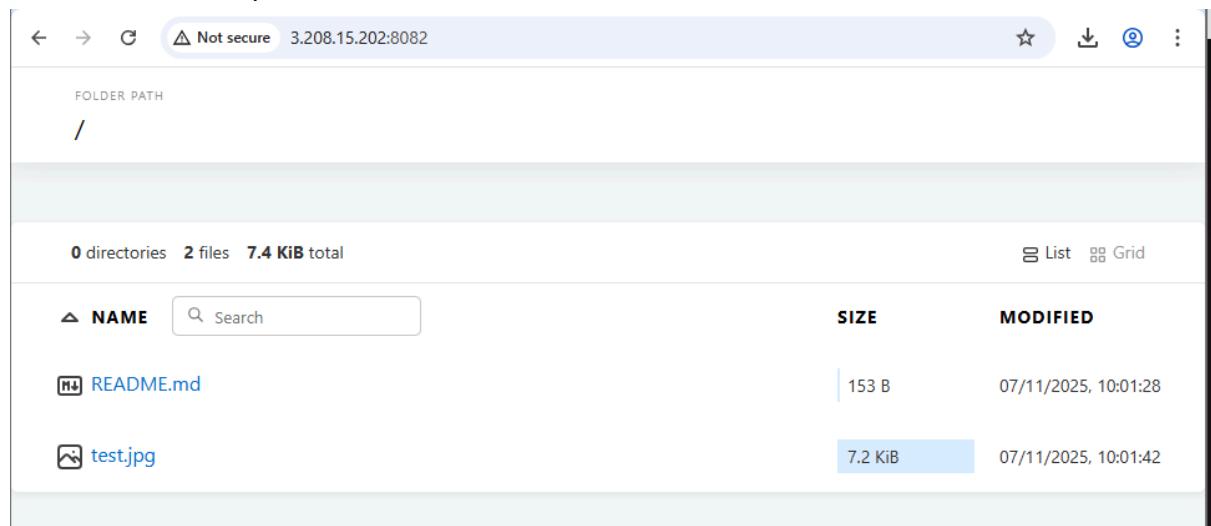
#### 17. Verificacion del puerto



## 18.Verificacion del puerto



## 19.Verificaicon del puerto



## 20.Comandos realizados

```
ubuntu@ip-172-31-17-129:~$ history
 1 exit
 2 sudo apt update && sudo apt upgrade -y
 3 sudo apt install apache2 -y
 4 sudo nano /etc/apache2/ports.conf
 5 sudo nano /etc/apache2/sites-available/000-default.conf
 6 sudo apt install php libapache2-mod-php -y
 7 sudo systemctl restart apache2
 8 sudo systemctl status apache2
 9 sudo netstat -tulpn | grep apache2
10 sudo apt install net-tools
11 sudo netstat -tulpn | grep apache2
12 echo "<?php phpinfo(); ?>" | sudo tee /var/www/html/info.php
13 echo "<?php phpinfo();?>" | sudo tee /var/www/html/info.php
14 echo "<?php phpinfo(); ?>" | sudo tee /var/www/html/info.php
15 curl http://localhost:8080/info.php
16 sudo apt install nginx -y
17 sudo nano /etc/nginx/sites-available/default
18 echo "<h1>Servidor Nginx</h1><p>Funcionando en puerto 8081</p>" | sudo tee /usr/share/nginx/html/index.html
19 sudo systemctl restart nginx
20 sudo systemctl status nginx
21 sudo systemctl status nginx
22 sudo netstat -tulpn | grep nginx
```

## 21.Comandos realizados

```
23 sudo netstat -tulpn | grep nginx
24 curl http://localhost:8081
25 curl http://localhost:8081
26 sudo apt install -y debian-keyring debian-archive-keyring apt-transport-https curl
27 curl -1sLf 'https://dl.cloudsmith.io/public/caddy/stable/gpg.key' | sudo gpg --dearmor -o /usr/share/keyrings/caddy-stable-archive-keyring.gpg
28 curl -1sLf 'https://dl.cloudsmith.io/public/caddy/stable/gpg.key' | sudo gpg --dearmor -o /usr/share/keyrings/caddy-stable-archive-keyring.gpg
29 sudo apt install -y debian-keyring debian-archive-keyring apt-transport-https curl
30 curl -1sLf 'https://dl.cloudsmith.io/public/caddy/stable/gpg.key' | sudo gpg --dearmor -o /usr/share/keyrings/caddy-stable-archive-keyring.gpg
31 curl -1sLf 'https://dl.cloudsmith.io/public/caddy/stable/gpg.key' | sudo gpg --dearmor -o
32 /usr/share/keyrings/caddy-stable-archive-keyring.gpg
33 clear
34 curl -1sLf 'https://dl.cloudsmith.io/public/caddy/stable/gpg.key' | sudo gpg --dearmor -o /usr/share/keyrings/caddy-stable-archive-keyring.gpg
35 curl -1sLf 'https://dl.cloudsmith.io/public/caddy/stable/debian.deb.txt' | sudo tee /etc/apt/sources.list.d/caddy-stable.list
36 sudo apt update && sudo apt install caddy -y
37 sudo mkdir -p /var/www/caddy
38 echo "# Bienvenido a Caddy" | sudo tee /var/www/caddy/README.md
```

## 22.Comandos relajados

```
39 echo "" | sudo tee -a /var/www/caddy/README.md
40 echo "Este servidor está funcionando correctamente." | sudo tee -a /var/www/caddy/README.md
41 echo "" | sudo tee -a /var/www/caddy/README.md
42 echo "## Características" | sudo tee -a /var/www/caddy/README.md
43 echo "- Servidor moderno" | sudo tee -a /var/www/caddy/README.md
44 echo "- HTTPS automático" | sudo tee -a /var/www/caddy/README.md
45 echo "- Fácil configuración" | sudo tee -a /var/www/caddy/README.md
46 curl -o /tmp/test-image.jpg "https://www.python.org/static/apple-touch-icon-144x144-precomposed.png"
47 sudo mv /tmp/test-image.jpg /var/www/caddy/test.jpg
48 sudo nano /etc/caddy/Caddyfile
49 sudo systemctl restart caddy
50 sudo systemctl status caddy
51 sudo netstat -tulpn | grep caddy
52 curl http://localhost:8082/
53 curl http://localhost:8082/README.md
54 sudo apt install certbot python3-certbot-apache -y
55 sudo openssl req -x509 -nodes -days 365 -newkey rsa:2048 -keyout /etc/ssl/private/apache-selfsigned.key -out /etc/ssl/certs/apache-selfsigned.crt
56 sudo a2enmod ssl
57 sudo nano /etc/apache2/ports.conf
58 sudo nano /etc/apache2/sites-available/default-ssl.conf
59 sudo a2ensite default-ssl.conf
```

## 23. Comandos realizados

```
60 sudo systemctl restart apache2
61 curl -i -k https://localhost:8443
62 curl -i -k https://localhost:8443
63 sudo systemctl status apache2
64 sudo netstat -tulpn | grep apache2
65 sudo systemctl status nginx
66 sudo netstat -tulpn | grep nginx
67 sudo systemctl status caddy
68 sudo netstat -tulpn | grep caddy
69 sudo netstat -tulpn | grep -E '8080|8081|8082|8443'
70 curl http://localhost:8080
71 curl http://localhost:8081
72 curl http://localhost:8082
73 curl -i -k http://localhost:8443
74 history
ubuntu@ip-172-31-17-129:~$
```

24.

```
ubuntu@ip-172-31-17-129:~$ sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
  Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: >
  Active: active (running) since Fri 2025-11-07 09:11:11 UTC; 11min ago
    Docs: https://httpd.apache.org/docs/2.4/
  Process: 22530 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/S>
 Main PID: 22534 (apache2)
```

25.

```
ubuntu@ip-172-31-17-129:~$ sudo systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
  Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: en>
  Active: active (running) since Fri 2025-11-07 08:52:00 UTC; 31min ago
    Docs: man:nginx(8)
```

26.

```
ubuntu@ip-172-31-17-129:~$ sudo systemctl status caddy
● caddy.service - Caddy
  Loaded: loaded (/usr/lib/systemd/system/caddy.service; enabled; preset: en>
  Active: active (running) since Fri 2025-11-07 09:04:17 UTC; 19min ago
    Docs: https://caddyserver.com/docs/
 Main PID: 22018 (caddy)
```

27.

```
ubuntu@ip-172-31-17-129:~$ sudo netstat -tulpn | grep apache2
tcp6      0      0 :::8443          ::::*                  LISTEN
22534/apache2
tcp6      0      0 :::8080          ::::*                  LISTEN
22534/apache2
tcp6      0      0 :::443           ::::*                  LISTEN
22534/apache2
```

28.

```
ubuntu@ip-172-31-17-129:~$ sudo netstat -tulpn | grep nginx
tcp      0      0 0.0.0.0:8081      0.0.0.0:*              LISTEN
20992/nginx: master
tcp6      0      0 :::80            ::::*                  LISTEN
20992/nginx: master
```

29.

```
ubuntu@ip-172-31-17-129:~$ sudo netstat -tulpn | grep caddy
tcp      0      0 127.0.0.1:2019    0.0.0.0:*              LISTEN
22018/caddy
tcp6      0      0 :::8082          ::::*                  LISTEN
22018/caddy
```

30.

```
ubuntu@ip-172-31-17-129:~$ sudo netstat -tulpn | grep -E '8080|8081|8082|8443'
tcp      0      0 0.0.0.0:8081          0.0.0.0:*          LISTEN
20992/nginx: master
tcp6     0      0 :::8443             ::::*              LISTEN
22534/apache2
tcp6     0      0 :::8082             ::::*              LISTEN
22018/caddy
tcp6     0      0 :::8080             ::::*              LISTEN
22534/apache2
```