

Desafío 3

Actividad AWS

Profesores: Edgar Gonzalez, Facundo Miglio

Alumno: Pedro Jonas Alandia

Curso: Bootcamp Devops Engineer

Fecha: 12/05/2024

Desarrollo:

Las siguientes capturas evidencia lo primero enunciado en la actividad, creación de usuario, grupo, etc.

[IAM](#) > [User groups](#) > Grupo-1Administradores

Grupo-1Administradores

Info

Summary

User group name

Grupo-1Administradores

Creation time

May 05, 2024, 21:12 (UTC-03:00)

Users (1)

Permissions

Access Advisor

Users in this group (1)

An IAM user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS.

Q Search

☐

User name

☐

[Admin1](#)

Permissions policies (6)

Info

↺

Simulate

You can attach up to 10 managed policies.

Q Search

Filter by Type

All types

<input type="checkbox"/>	Policy name	Type	Attached
<input type="checkbox"/>	<div><div>+</div><div>AmazonEBSCSIDriverPolicy</div></div>	AWS managed	1
<input type="checkbox"/>	<div><div>+</div><div>AmazonEC2FullAccess</div></div>	AWS managed	1
<input type="checkbox"/>	<div><div>+</div><div>AmazonS3FullAccess</div></div>	AWS managed	1
<input type="checkbox"/>	<div><div>+</div><div>AmazonS3OutpostsFullAccess</div></div>	AWS managed	1
<input type="checkbox"/>	<div><div>+</div><div>AmazonSSManagedEC2InstanceDefault...</div></div>	AWS managed	1
<input type="checkbox"/>	<div><div>+</div><div>ROSAAmazonEBSCSIDriverOperatorPolicy</div></div>	AWS managed	1

Se crea el usuario Admin1 con todos los permisos mencionados.

N. Virginia ▼

Admin1 @ 9750-5031-0576 ▲

Account ID: 9750-5031-0576

IAM user: Admin1

Account

Organization

Service Quotas

Billing and Cost Management

Security credentials

Switch role

Sign out

EC2

Se crea la instancia solicitada en el enunciado y se le agregan los tags y el user data para su arranque con apache.

Request to manage tags has succeeded.

Instances (1/4) Info

Find Instance by attribute or tag (case-sensitive)

All states ▼

	Name	Instance ID	Instance state	Instance type	Status checks
<input checked="" type="checkbox"/>	desafioec2	i-04d7704b85bf8e522	Running	t2.micro	2/2 checks successful
<input type="checkbox"/>	prueba2	i-0c152071910b492db	Terminated	t2.micro	-
<input type="checkbox"/>	prueba3	i-04cb1d2834a9a4485	Terminated	t2.micro	-
<input type="checkbox"/>	DesafioEC2	i-01d357a355661db7a	Terminated	t2.micro	-

i-04d7704b85bf8e522 (desafioec2)

Instance ID

i-04d7704b85bf8e522 (desafioec2)

IPv6 address

-

Hostname type

IP name: ip-172-31-16-204.ec2.internal

Answer private resource DNS name

IPv4 (A)

Auto-assigned IP address

Public IPv4 address

52.90.139.213 | open address

Instance state

Running

Private IP DNS name (IPv4 only)

ip-172-31-16-204.ec2.internal

Instance type

t2.micro

VPC ID

i-04d7704b85bf8e522 (desafioec2)

Tags

Key	Value
Team	Grupo-1
Owner	Pedro
Email	prueba@gmail.com.
Name	desafioec2
Proyectogr...	Actividad-AWS

Prueba de conexión:

El script que cargamos en User Data es el siguiente:

```
#!/bin/bash

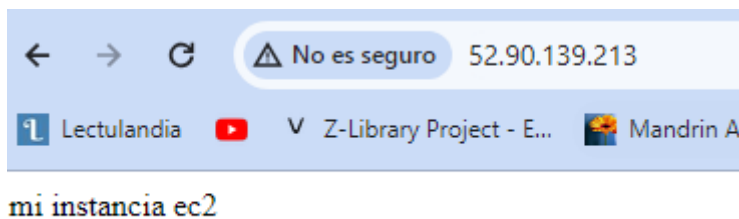
apt-get update -y

apt-get install apache2 -y

echo "mi instancia ec2" > /var/www/html/index.html

systemctl start apache2
```

Luego procedemos a probar la conexión y modificamos el html de apache con la leyenda “mi instancia ec2”.



Conexión por SSH mediante Windows:

```
C:\Users\Jo>ssh -i C:\Users\Jo\Downloads\desafioec2.pem ubuntu@52.90.139.213
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1008-aws x86_64)

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

System information as of Tue May  7 03:09:59 UTC 2024

System load:  0.0               Processes:    109
Usage of /:   26.3% of 6.71GB   Users logged in:  0
Memory usage: 22%              IPv4 address for enx0: 172.31.16.204
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

11 updates can be applied immediately.
11 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable
```

```
The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-16-204:~$ ls
ubuntu@ip-172-31-16-204:~$ pwd
/home/ubuntu
ubuntu@ip-172-31-16-204:~$
```

```
ubuntu@ip-172-31-16-204:~$ systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
   Active: active (running) since Tue 2024-05-07 02:45:10 UTC; 28min ago
     Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 1863 (apache2)
    Tasks: 55 (limit: 1130)
   Memory: 5.7M (peak: 6.0M)
      CPU: 128ms
   CGroup: /system.slice/apache2.service
           └─1863 /usr/sbin/apache2 -k start
             └─1865 /usr/sbin/apache2 -k start
               └─1866 /usr/sbin/apache2 -k start

May 07 02:45:10 ip-172-31-16-204 systemd[1]: Starting apache2.service - The Apache HTTP Server...
May 07 02:45:10 ip-172-31-16-204 systemd[1]: Started apache2.service - The Apache HTTP Server.
ubuntu@ip-172-31-16-204:~$
```

Añadiendo Rol de SSM a la instancia y añadiendo la política de SSMec2 al User group, vamos a poder conectarnos tanto usuario root como usuarios dentro del grupo por Sesion Manager sin necesidad de key pairs, puertos, vpc, etc:

[EC2](#) > [Instances](#) > [i-04d7704b85bf8e522](#) > [Connect to instance](#)

Connect to instance [Info](#)

Connect to your instance i-04d7704b85bf8e522 (desafioec2) using any of these options

EC2 Instance Connect	Session Manager	SSH client	EC2 serial console
<p>Session Manager usage:</p> <ul style="list-style-type: none">• Connect to your instance without SSH keys, a bastion host, or opening any inbound ports.• Sessions are secured using an AWS Key Management Service key.• You can log session commands and details in an Amazon S3 bucket or CloudWatch Logs log group.• Configure sessions on the Session Manager Preferences page.			

[Cancel](#) [Connect](#)

← → ↻ ☰ us-east-1.console.aws.amazon.com/systems-manager/session-manage

Lectulandia YouTube V Z-Library Project - E... Mandrin Academy: Meet: vfy-uspm-htu

Session ID: Admin1-avpwdxazg3gd4ajpjxhm7fc3pa

Instance ID: i-04d7704b85bf8e

```
$ whoami
ssm-user
$ pwd
/var/snap/amazon-ssm-agent/7983
$ user
sh: 8: user: not found
```

S3

Creamos el bucket en s3 con nombre *actividadec2bootcamp* y permisos:

Amazon S3 > Buckets

Account snapshot - updated every 24 hours All AWS Regions

Storage lens provides visibility into storage usage and activity trends. [Learn more](#)

General purpose buckets

Directory buckets

General purpose buckets (1) Info All AWS Regions

Refresh

Copy ARN

Buckets are containers for data stored in S3.

Find buckets by name

Name	AWS Region	IAM Access Analyzer
actividadec2bootcamp	US East (N. Virginia) us-east-1	View analyzer for us-east-1

Bucket policy

EditDelete

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. [Learn more](#)

```
{
  "Version": "2012-10-17",
  "Id": "Policy1715267129226",
  "Statement": [
    {
      "Sid": "Stmnt1715267124628",
      "Effect": "Allow",
      "Principal": "*",
      "Action": "s3:GetObject",
      "Resource": "arn:aws:s3:::actividadec2bootcamp/Actividad-AWS (1).pdf"
    }
  ]
}
```

Copy

Amazon S3 > Buckets > [actividadec2bootcamp](#) > Actividad-AWS (1).pdf

Actividad-AWS (1).pdf Info

Copy S3 URI

Download

Open

Object action

Properties

Permissions

Versions

Object overview

Owner

pedro.alandia.aws1

AWS Region

US East (N. Virginia) us-east-1

Last modified

May 9, 2024, 12:04:45 (UTC-03:00)

Size

53.4 KB

Type

S3 URI

[s3://actividadec2bootcamp/Actividad-AWS \(1\).pdf](#)

Amazon Resource Name (ARN)

[arn:aws:s3:::actividadec2bootcamp/Actividad-AWS \(1\).pdf](#)

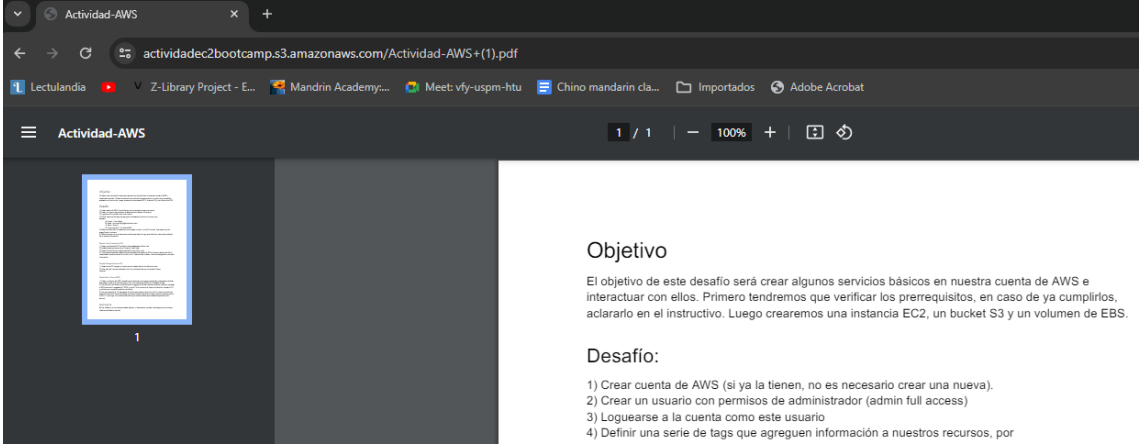
Entity tag (Etag)

[79743842addae187942fdec2be83c12e](#)

Object URL

[https://actividadec2bootcamp.s3.amazonaws.com/Actividad-AWS+\(1\).pdf](#)

Probamos el ingreso con la **Object URL** que se configuró publica para todo acceso:



The screenshot shows a web browser window with the address bar displaying the URL: `actividadec2bootcamp.s3.amazonaws.com/Actividad-AWS+(1).pdf`. The browser's tab is labeled 'Actividad-AWS'. The PDF viewer interface shows a document titled 'Actividad-AWS' with a page number '1' at the bottom. The document content is visible on the left side of the viewer. On the right side, there is a section titled 'Objetivo' and a section titled 'Desafío:'.

Objetivo

El objetivo de este desafío será crear algunos servicios básicos en nuestra cuenta de AWS e interactuar con ellos. Primero tendremos que verificar los prerrequisitos, en caso de ya cumplirlos, aclararlo en el instructivo. Luego crearemos una instancia EC2, un bucket S3 y un volumen de EBS.

Desafío:

- 1) Crear cuenta de AWS (si ya la tienen, no es necesario crear una nueva).
- 2) Crear un usuario con permisos de administrador (admin full access)
- 3) Loguearse a la cuenta como este usuario
- 4) Definir una serie de tags que agreguen información a nuestros recursos, por

EBS

Se adjunta una unidad de 4 GB a nuestra instancia mencionada arriba y continuamos con lo solicitado en el enunciado de ebs.

EC2 > Volumes > vol-04fabce32d17a99df

vol-04fabce32d17a99df

vol-04fabce32d17a99df

AWS Compute Optimizer finding

This user is not authorized to call AWS Compute Optimizer. | Retry

Encryption

Not encrypted

Fast snapshot restored

No

Multi-Attach enabled

No

Size

4 GiB

Volume state

Available

KMS key ID

-

Snapshot

-

Attached resources

-

Type

gp3

IOPS

3000

KMS key alias

-

Availability Zone

us-east-1d

Outposts ARN

-

Actions

Create snapshot

Attach volume

Detach volume

Force detach volume

Manage auto-enabled I/O

Delete

Modify

KMS key ARN

-

Created

Thu May 09 2024 12:34:55 GMT-0300

(hora estándar de Argentina)

```
ubuntu@ip-172-31-16-204:~$ sudo fdisk -l
Disk /dev/loop0: 25.23 MiB, 26456064 bytes, 51672 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/loop1: 55.66 MiB, 58363904 bytes, 113992 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
```

```
Disk /dev/xvdk: 4 GiB, 4294967296 bytes, 8388608 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
```

```

ubuntu@ip-172-31-16-204:~$ sudo mkfs -t ext4 /dev/xvdk
mke2fs 1.47.0 (5-Feb-2023)
Creating filesystem with 1048576 4k blocks and 262144 inodes
Filesystem UUID: 0b1aafa2-7081-40e8-b764-92a50cdd66b6
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

ubuntu@ip-172-31-16-204:~$ lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0         7:0      0 25.2M  1 loop /snap/amazon-ssm-agent/7983
loop1         7:1      0 55.7M  1 loop /snap/core18/2812
loop2         7:2      0 55.7M  1 loop /snap/core18/2823
loop3         7:3      0 38.7M  1 loop /snap/snapd/21465
xvda         202:0     0    8G   0 disk
├─xvda1      202:1     0    7G   0 part /
├─xvda14     202:14    0    4M   0 part
├─xvda15     202:15    0 106M   0 part /boot/efi
└─xvda16     259:0     0 913M   0 part /boot
xvdk         202:160   0    4G   0 disk

```

Para montar nuestra unidad, añadimos esta al fichero FSTAB modificándolo con el comando vi:

```

ubuntu@ip-172-31-16-204:~$ cat /etc/fstab
LABEL=cloudimg-rootfs / ext4 discard,commit=30,errors=remount-ro 0 1
LABEL=BOOT /boot ext4 defaults 0 2
LABEL=UEFI /boot/efi vfat umask=0077 0 1
/dev/xvdk /desafios ext4 0 1
ubuntu@ip-172-31-16-204:~$

```

El comando “mount -a” monto todo lo que se haya agregado al FSTAB de manera permanente.

```

ubuntu@ip-172-31-16-204:~$ sudo mount -a
ubuntu@ip-172-31-16-204:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        6.8G  1.9G  4.9G  28% /
tmpfs            479M   0  479M   0% /dev/shm
tmpfs            192M  868K  191M   1% /run
tmpfs            5.0M   0   5.0M   0% /run/lock
/dev/xvda16      881M   76M  744M  10% /boot
/dev/xvda15      105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
/dev/xvdk        3.9G   24K   3.7G   1% /desafios
ubuntu@ip-172-31-16-204:~$ lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0         7:0    0 25.2M  1 loop /snap/amazon-ssm-agent/7983
loop1         7:1    0 55.7M  1 loop /snap/core18/2812
loop2         7:2    0 55.7M  1 loop /snap/core18/2823
loop3         7:3    0 38.7M  1 loop /snap/snapd/21465
xvda         202:0    0    8G   0 disk
├─xvda1      202:1    0    7G   0 part /
├─xvda14     202:14   0    4M   0 part
├─xvda15     202:15   0   106M  0 part /boot/efi
└─xvda16     259:0    0   913M  0 part /boot
xvdk         202:160  0    4G   0 disk /desafios
ubuntu@ip-172-31-16-204:~$ cat /etc/fstab
LABEL=cloudimg-rootfs / ext4 discard,commit=30,errors=remount-ro 0 1
LABEL=BOOT /boot ext4 defaults 0 2
LABEL=UEFI /boot/efi vfat umask=0077 0 1
/dev/xvdk /desafios ext4 0 1
ubuntu@ip-172-31-16-204:~$

```

Escribimos en nuestra nueva unidad montada.

```

ubuntu@ip-172-31-16-204:/desafios$ sudo mkdir CarpetaDePrueba!
ubuntu@ip-172-31-16-204:/desafios$ ls
'CarpetaDePrueba!'  ProbandoParticion.txt  lost+found
ubuntu@ip-172-31-16-204:/desafios$

```

```

ubuntu@ip-172-31-16-204:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        6.8G  1.9G  4.9G  28% /
tmpfs            479M   0  479M   0% /dev/shm
tmpfs            192M  868K  191M   1% /run
tmpfs            5.0M   0   5.0M   0% /run/lock
/dev/xvda16      881M   76M  744M  10% /boot
/dev/xvda15      105M   6.1M   99M   6% /boot/efi
/dev/xvdk        3.9G   28K   3.7G   1% /desafios
tmpfs            96M   12K   96M   1% /run/user/1000
ubuntu@ip-172-31-16-204:~$ cd /desafios
ubuntu@ip-172-31-16-204:/desafios$ ls
'CarpetaDePrueba!'  ProbandoParticion.txt  lost+found
ubuntu@ip-172-31-16-204:/desafios$ pwd
/desafios
ubuntu@ip-172-31-16-204:/desafios$

```

Traemos nuestro Archivo del desafío del Bucket creado anteriormente:

```

ubuntu@ip-172-31-16-204:/desafios$ pwd
/desafios
ubuntu@ip-172-31-16-204:/desafios$ ls
'CarpetaDePrueba!'  ProbandoParticion.txt  lost+found
ubuntu@ip-172-31-16-204:/desafios$ sudo wget https://actividadec2bootcamp.s3.amazonaws.com/Actividad-AWS+(1).pdf
--2024-05-12 01:54:56-- https://actividadec2bootcamp.s3.amazonaws.com/Actividad-AWS+(1).pdf
Resolving actividadec2bootcamp.s3.amazonaws.com (actividadec2bootcamp.s3.amazonaws.com)... 52.217.107.140, 52.217.198.177, 52.217.140.100
Connecting to actividadec2bootcamp.s3.amazonaws.com (actividadec2bootcamp.s3.amazonaws.com)|52.217.107.140|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 54633 (53K) [application/pdf]
Saving to: 'Actividad-AWS+(1).pdf'

Actividad-AWS+(1).pdf                               100%[=====]
2024-05-12 01:54:56 (27.3 MB/s) - 'Actividad-AWS+(1).pdf' saved [54633/54633]

ubuntu@ip-172-31-16-204:/desafios$ ls
'CarpetaDePrueba!'  'Actividad-AWS+(1).pdf'  ProbandoParticion.txt  lost+found
ubuntu@ip-172-31-16-204:/desafios$

```

Me faltaría agregar información de la *CarpetaDePrueba!* Para que me nos muestre en que disco está escrito.