Examen Practico

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Actividad 1. PEM nuevas

Actividad 2. Creación de la instancia EC2

Asignación de Keys

Configuración de red

Creación de Security Group

Create security group ● | ○ Select existing security group

Security group name - *required*

angel-gonzalez-exam-sg

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and ._-:/()#,@[]+=&;{}!$*

Description - *required* | Info

Sg creado para el examen

Inbound Security Group Rules

▼ Security group rule 1 (TCP, 22, 181.59.3.163/32, ssh-angelEXAM)   [Remove]

Type	Info	Protocol	Info	Port range	Info
ssh ▼		TCP		22	

Source type	Info	Name	Info	Description - *optional*	Info
My IP ▼		Q Add CIDR, prefix list or security group		ssh-angelEXAM	
		181.59.3.163/32 ✕			

▼ Security group rule 2 (TCP, 80, 0.0.0.0/0)   [Remove]

Type	Info	Protocol	Info	Port range	Info
HTTP ▼		TCP		80	

Source type	Info	Source	Info	Description - *optional*	Info
Anywhere ▼		Q Add CIDR, prefix list or security group		e.g. SSH for admin desktop	
		0.0.0.0/0 ✕			

⚠ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.   ✕

[Add security group rule]

▶ Advanced network configuration

Configuración de parametros avanzados

User data – *optional* | Info
Upload a file with your user data or enter it in the field.

[⬆ Choose file]

```
#!/bin/bash
# Update system
dnf update -y
# Install required packages
dnf install -y httpd wget php php-fpm php-mysqli php-json php-devel
php-mbstring mariadb105 unzip
# Enable and start Apache
systemctl enable httpd
systemctl start httpd
# Install web app
cd /var/www/html
if [ ! -f immersion-day-app-php7.zip ]; then
wget -O immersion-day-app-php7.zip
https://static.us-east-1.prod.workshops.aws/public/0cf8e0cc-9aa4-41b3-aa
e7-ea46d24b239e/assets/immersion-day-app-php7.zip
unzip immersion-day-app-php7.zip
fi
# Install AWS SDK
if [ ! -d /var/www/html/vendor ]; then
mkdir vendor
cd vendor
wget https://docs.aws.amazon.com/aws-sdk-php/v3/download/aws.zip
unzip aws.zip
fi
```

☐ User data has already been base64 encoded

Instancia EC2 creada con éxito

Instance summary for i-08083666d9af03a84 (Angel-Gonzalez-EXAMEN) Info   ⟳ | [Connect] | [Instance state ▼] | [Actions ▼]
Updated less than a minute ago

Instance ID
🗋 i-08083666d9af03a84

Public IPv4 address
🗋 54.80.3.62 | open address ↗

Private IPv4 addresses
🗋 172.31.23.100

IPv6 address
–

Instance state
⊘ Running

Public DNS
🗋 ec2-54-80-3-62.compute-1.amazonaws.com | open address ↗

Hostname type
IP name: ip-172-31-23-100.ec2.internal

Private IP DNS name (IPv4 only)
🗋 ip-172-31-23-100.ec2.internal

Answer private resource DNS name
IPv4 (A)

Instance type
t3.micro

Elastic IP addresses
–

Auto-assigned IP address
🗋 54.80.3.62 [Public IP]

VPC ID
🗋 vpc-00f479057476a2db8 ↗

AWS Compute Optimizer finding
⊗
User: arn:aws:iam::654654478122:user/students/anggonpad@gmail.com is not a
uthorized to perform: compute-optimizer:GetEnrollmentStatus on resource: * be
cause no identity-based policy allows the compute-optimizer:GetEnrollmentStat
us action
Retry

IAM role
–

Subnet ID
🗋 subnet-0ed46236dc39c8c58 ↗

Auto Scaling Group name
–

IMDSv2
Required

Instance ARN
🗋 arn:aws:ec2:us-east-1:654654478122:instance/i-08083666d9af03a84

Managed
false

Operator
–

Details | Status and alarms | Monitoring | Security | Networking | Storage | Tags

Verificación con SSH

Comprobamos que apache esté corriendo

Verificamos que la página sea accesible públicamente sin embargo no cargo la web app
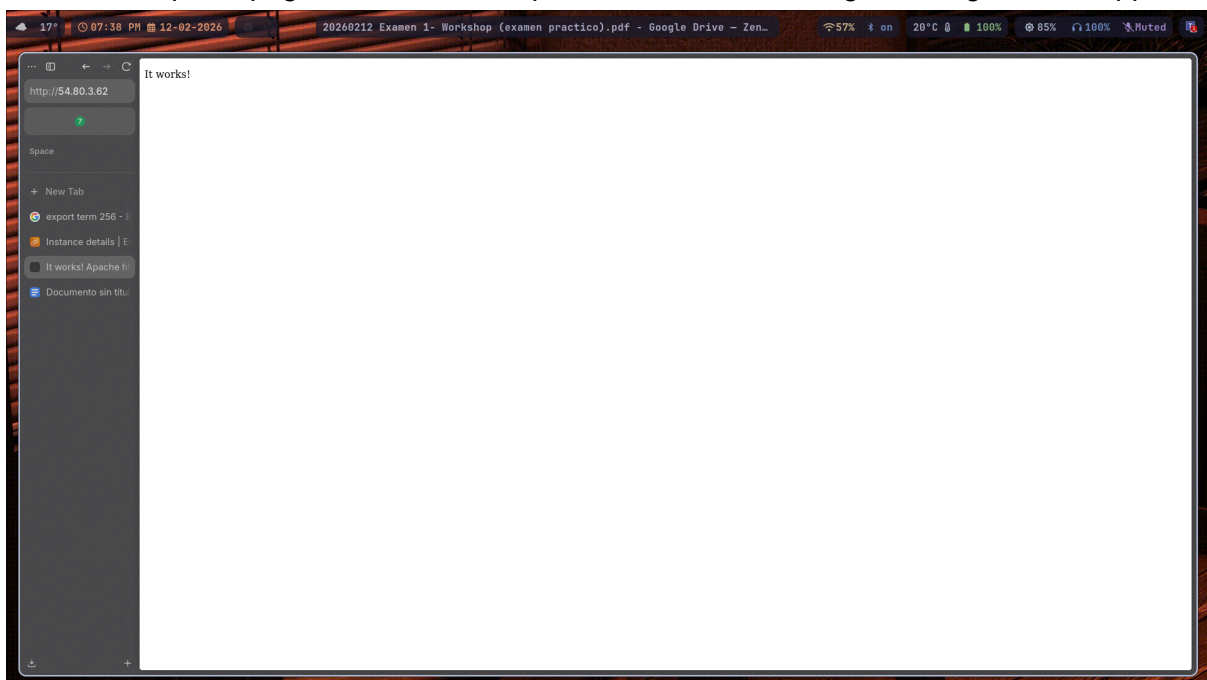
Se corrige descargando manualmente desde ssh


```
[ec2-user@ip-172-31-23-100 html]$ ls -l
total 84
drwxr-xr-x. 3 root root 16384 Feb 13 01:02 __MACOSX
-rw-r--r--. 1 root root   463 Jul 24  2013 db-update.php
-rw-r--r--. 1 root root   368 Sep 17  2012 get-cpu-load.php
-rw-r--r--. 1 root root  1420 Jun 22  2023 get-index-meta-data.php
-rw-r--r--. 1 root root 14135 Dec  3 17:31 immersion-day-app-php7.zip
-rw-r--r--. 1 root root   370 Dec 29  2021 index.php
-rw-r--r--. 1 root root   371 Apr 10  2013 load.php
-rw-r--r--. 1 root root   357 May  4  2021 menu.php
-rw-r--r--. 1 root root   543 Oct  2  2014 put-cpu-load.php
-rw-r--r--. 1 root root   134 Dec 29  2021 rds-initialize.php
-rw-r--r--. 1 root root  3515 Jan 11  2022 rds-read-data.php
-rw-r--r--. 1 root root  1257 Dec 29  2021 rds-write-config.php
-rw-r--r--. 1 root root  3192 Jun 22  2023 rds.conf.php
-rw-r--r--. 1 root root   346 Dec 29  2021 rds.php
drwxr-xr-x. 2 root root    29 Dec 29  2021 sql
-rw-r--r--. 1 root root   877 Sep  6  2012 style.css
drwxr-xr-x. 6 root root   186 Feb 13 01:03 vendor
[ec2-user@ip-172-31-23-100 html]$
```

Al comprobar ya funciona

Actividad 4. EBS con tags
Se crea el EBS en la AZ correcta (en mi instancia es la us-east-1c)

Create volume Info
Create an Amazon EBS volume to attach to any EC2 instance in the same Availability Zone.

Volume settings

Volume type | Info

General Purpose SSD (gp3) ▼

Size (GiB) | Info

3 ⌄

Min: 1 GiB, Max: 65536 GiB.

IOPS | Info

3000 ⌄

Min: 3000 IOPS, Max: 80000 IOPS.

Throughput (MiB/s) | Info

125 ⌄

Min: 125 MiB, Max: 2000 MiB. Baseline: 125 MiB/s.

Availability Zone | Info

use1-az4 (us-east-1c) ▼

Snapshot ID - *optional* | Info

Don't create volume from a snapshot ▼ ↻

Encryption | Info
Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances.
☐ Encrypt this volume

Agregamos el tag para identificarlo

Tags - *optional* Info
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - *optional*	
🔍 Name ✕	🔍 angel-gonzalezEXAMEN ✕	Remove

Add new tag
You can add up to 49 more tags.

Le hacemos el attach a mi instancia

Attach volume Info
Attach a volume to an instance to use it as you would a regular physical hard disk drive.

Basic details

Volume ID
🗗 vol-04b23fead9399e75a (angel-gonzalezEXAMEN)

Availability Zone
use1-az4 (us-east-1c)

Instance | Info

i-08083666d9af03a84
(Angel-Gonzalez-EXAMEN) (running) ▼ ↻

Only instances in the same Availability Zone as the selected volume are displayed.

Device name | Info

/dev/xvdbb ▼

Recommended device names for Linux: /dev/xvda for root volume. /dev/sd[f-p] for data volumes.

ⓘ Newer Linux kernels may rename your devices to **/dev/xvdf** through **/dev/xvdp** internally, even when the device name entered here (and shown in the details) is **/dev/sdf** through **/dev/sdp**. ✕

Cancel **Attach volume**

Revisamos que se encuentre el disco

Actividad 5. Bucket S3

Create bucket Info
Buckets are containers for data stored in S3.

General configuration

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

Bucket type Info

- ● General purpose
  Recommended for most use cases and access patterns. General purpose buckets are the original S3 bucket type. They allow a mix of storage classes that redundantly store objects across multiple Availability Zones.

- ○ Directory
  Recommended for low-latency use cases. These buckets use only the S3 Express One Zone storage class, which provides faster processing of data within a single Availability Zone.

Bucket name Info

angel-gonzalez-padilla-EXAMEN-S3

Bucket names must be 3 to 63 characters and unique within the global namespace. Bucket names must also begin and end with a letter or number. Valid characters are a-z, 0-9, periods (.), and hyphens (-). Learn more

Copy settings from existing bucket - *optional*
Only the bucket settings in the following configuration are copied.

Choose bucket

Format: s3://bucket/prefix

Object Ownership Info
Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

Object Ownership

- ● ACLs disabled (recommended)
  All objects in this bucket are owned by this account. Access to this bucket and its objects is specified using only policies.

- ○ ACLs enabled
  Objects in this bucket can be owned by other AWS accounts. Access to this bucket and its objects can be specified using ACLs.

Object Ownership
Bucket owner enforced

Block Public Access settings for this bucket
Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to this bucket and its objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. Learn more

- ☑ **Block *all* public access**
  Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.
  - ☑ **Block public access to buckets and objects granted through *new* access control lists (ACLs)**
    S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
  - ☑ **Block public access to buckets and objects granted through *any* access control lists (ACLs)**
    S3 will ignore all ACLs that grant public access to buckets and objects.
  - ☑ **Block public access to buckets and objects granted through *new* public bucket or access point policies**
    S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.
  - ☑ **Block public and cross-account access to buckets and objects through *any* public bucket or access point policies**
    S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

Bucket Versioning
Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. Learn more

Bucket Versioning
- ● Disable
- ○ Enable

Asignamos tag

Tags - *optional*
You can use bucket tags to analyze, manage and specify permissions for a bucket. Learn more

ⓘ You can use s3:ListTagsForResource, s3:TagResource, and s3:UntagResource APIs to manage tags on S3 general purpose buckets for access control in addition to cost allocation and resource organization. To ensure a seamless transition, please provide permissions to s3:ListTagsForResource, s3:TagResource, and s3:UntagResource actions. Learn more
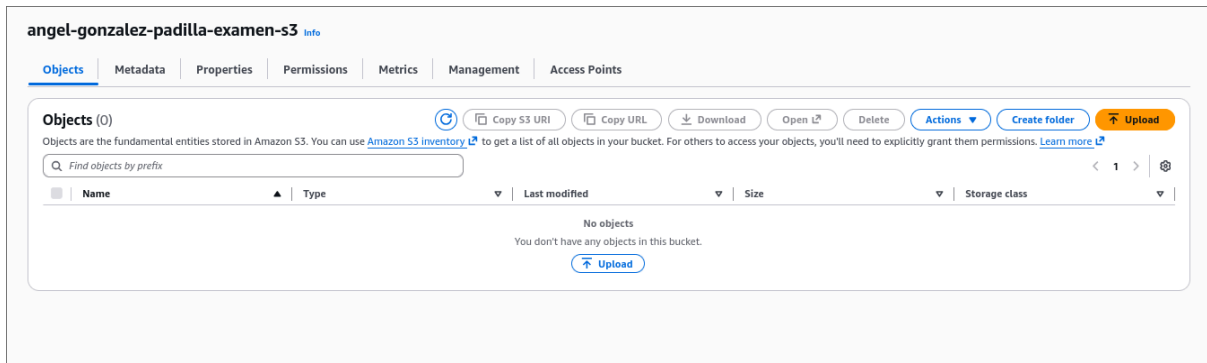
Key

Name

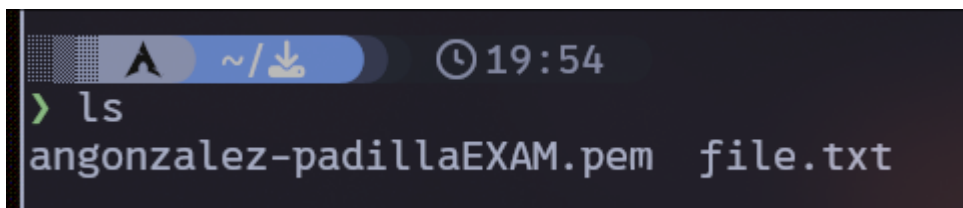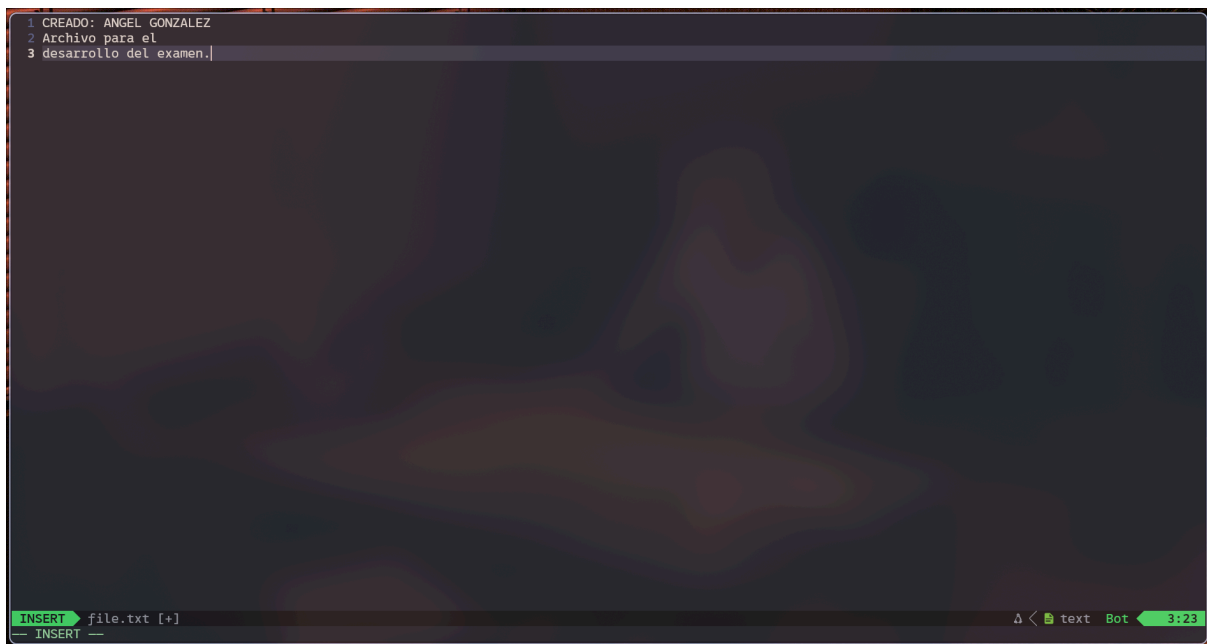**Value** - *optional*

AngelGonzalez-ExamenS3

Remove

Add new tag

You can add up to 49 more tags.

Creado con éxito

Creamos un archivo .txt

Lo subimos al bucket

Upload Info

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDKs or Amazon S3 REST API. Learn more ⬈

Drag and drop files and folders you want to upload here, or choose **Add files** or **Add folder**.

Files and folders (1 total, 63.0 B)

All files and folders in this table will be uploaded.

Remove | Add files | Add folder

🔍 Find by name

‹ 1 ›

☐	Name ▽	Folder ▽	Type ▽	Size ▽
☐	file.txt	-	text/plain	63.0 B

Destination Info

Destination

s3://angel-gonzalez-padilla-examen-s3 ⬈

▶ **Destination details**
Bucket settings that impact new objects stored in the specified destination.

▶ **Permissions**
Grant public access and access to other AWS accounts.

▶ **Properties**
Specify storage class, encryption settings, tags, and more.

Cancel | Upload

Subido con éxito

✓ **Upload succeeded**
For more information, see the **Files and folders** table.

✕

Upload: status

Close

ℹ After you navigate away from this page, the following information is no longer available.

Summary

Destination
s3://angel-gonzalez-padilla-examen-s3

Succeeded
✓ 1 file, 63.0 B (100.00%)

Failed
⊖ 0 files, 0 B (0%)

Files and folders | Configuration

Files and folders (1 total, 63.0 B)

🔍 Find by name

‹ 1 ›

Name	Folder ▽	Type ▽	Size ▽	Status ▽	Error ▽
file.txt ⬈	-	text/plain	63.0 B	✓ Succeeded	-