

Infrastructure as Code: AWS-CLI Primer Workshop

AWS-CLI Primer Workshop

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1. Instalé AWS CLI
2. **Configuré AWS CLI** con mis credenciales

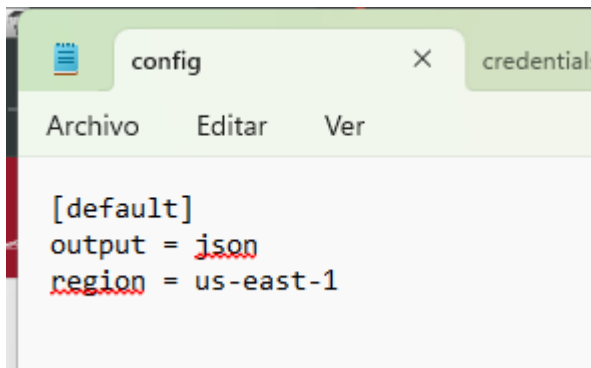
```
USUARIO@DESKTOP-R8IT589 MINGW64 ~/Videos/AREP5
$ aws configure
AWS Access Key ID [*****MPLE]: AKIAIOSFODNN7EXAMPLE
AWS Secret Access Key [*****EKEY]: wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAM
PLEKEY
Default region name [None]: us-west-2
Default output format [USUARIO@DESKTOP-R8IT589 MINGW64 ~]: json
```

3. Ingresé al directorio .aws y configuré correctamente ambos archivos (config y credentials)

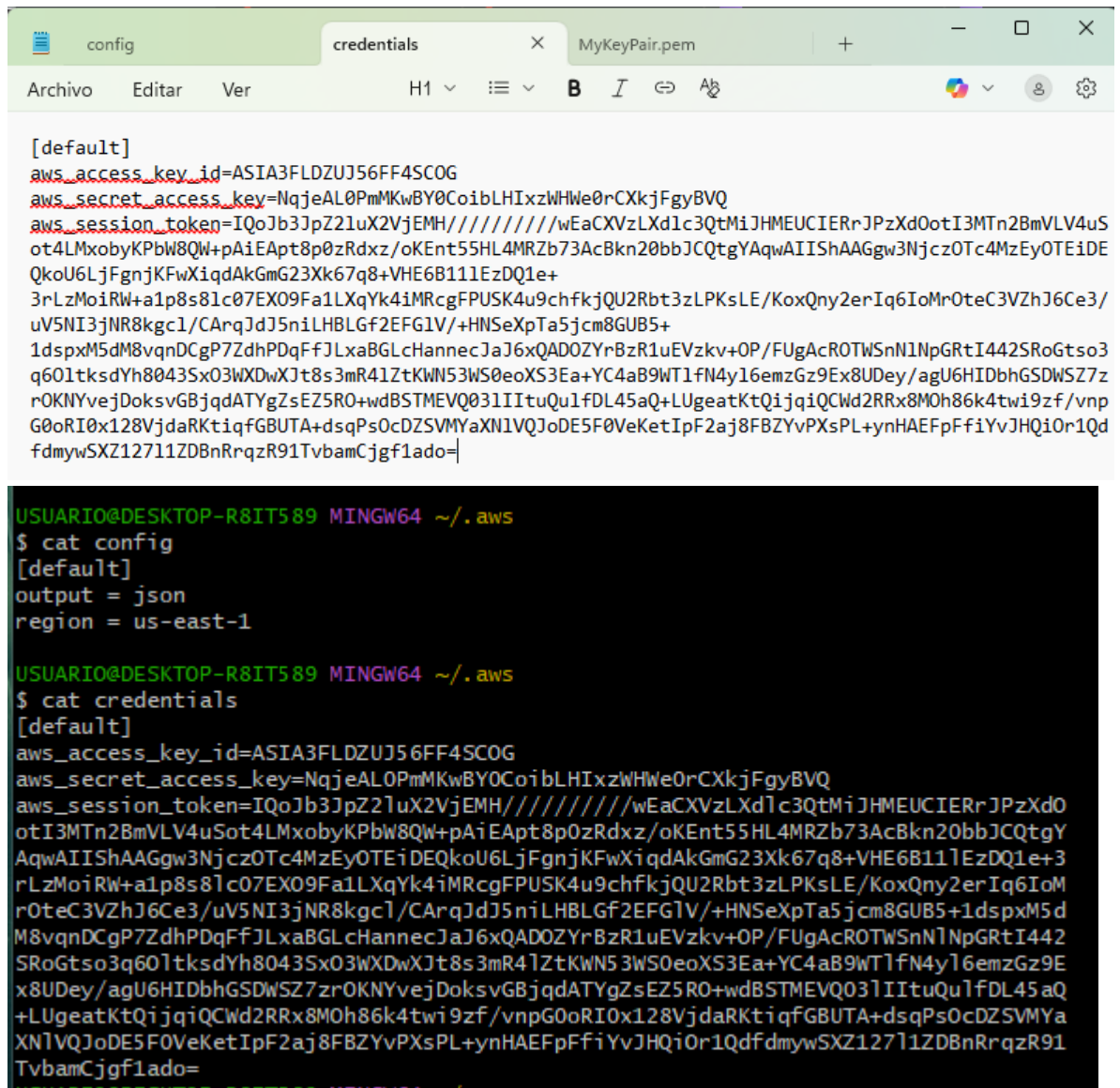
```
USUARIO@DESKTOP-R8IT589 MINGW64 ~/Videos/AREP5
$ cd

USUARIO@DESKTOP-R8IT589 MINGW64 ~
$ cd .aws

USUARIO@DESKTOP-R8IT589 MINGW64 ~/.aws
$ dir
config  credentials
```



```
[default]
output = json
region = us-east-1
```



The image shows a web browser window with three tabs: 'config', 'credentials', and 'MyKeyPair.pem'. The 'credentials' tab is active, displaying a long string of AWS credentials. Below the browser, a terminal window shows the contents of the 'config' and 'credentials' files. The 'config' file contains 'output = json' and 'region = us-east-1'. The 'credentials' file contains the same AWS credentials as the browser tab.

```
[default]
aws_access_key_id=ASIA3FLDZUJ56FF4SCOG
aws_secret_access_key=NqjeAL0PmMKwBY0CoibLHIxzWHWe0rCXkjFgyBVQ
aws_session_token=IQoJb3JpZ2luX2VjEMH////////wEaCXVzLXd1c3QtMiJHMEUCIERrJPzXdOotI3MTn2BmVLV4uS
ot4LMxobyKPbW8QW+pAiEApt8p0zRdxz/oKEnt55HL4MRZb73AcBkn20bbJCQtgYAqWAIIShAAGgw3Njcz0Tc4MzEyOTE1DE
QkoU6LjFgnjKFwXiQdAkGmG23Xk67q8+VHE6B111EzDQ1e+
3rLzMoiRW+a1p8s8lc07EX09Fa1LXqYk4iMRcgFPUSK4u9chfkjQU2Rbt3zLPKsLE/KoxQny2erIq6IoMr0teC3VZhJ6Ce3/
uV5NI3jNR8kgc1/CARqJdJ5niLHBLGf2EFG1V/+HNSeXpTa5jcm8GUB5+
1dspxM5dM8vqnDCgP7ZdhPDqFfJLxaBGLcHannecJaJ6xQAD0ZYrBzR1uEVzkv+OP/FUGAcROTWSnN1NpGRtI442SRoGtso3
q60ltsdYh8043Sx03WXDwXJt8s3mR41ZtKWN53WS0eoXS3Ea+YC4aB9WT1fN4y16emzGz9Ex8UDey/agU6HIDbhGSDWSZ7z
rOKNYvejDoksvGBjqdATYgZsEZ5R0+wdBSTMEVQ031IItuQu1fDL45aQ+LUgeatKtQijqiQCWd2RRx8M0h86k4twi9zf/vnp
G0oRI0x128VjdaRKtiqfGBUTA+dsqPs0cDZSVMYAXN1VQJoDE5F0VeKetIpF2aj8FBZYvPXsPL+ynHAEFpFfiYvJHQi0r1Qd
fdmywSXZ12711ZDBnRrqzR91TvbamCjgf1ado=
```

```
USUARIO@DESKTOP-R8IT589 MINGW64 ~/.aws
$ cat config
[default]
output = json
region = us-east-1

USUARIO@DESKTOP-R8IT589 MINGW64 ~/.aws
$ cat credentials
[default]
aws_access_key_id=ASIA3FLDZUJ56FF4SCOG
aws_secret_access_key=NqjeAL0PmMKwBY0CoibLHIxzWHWe0rCXkjFgyBVQ
aws_session_token=IQoJb3JpZ2luX2VjEMH////////wEaCXVzLXd1c3QtMiJHMEUCIERrJPzXdO
otI3MTn2BmVLV4uSot4LMxobyKPbW8QW+pAiEApt8p0zRdxz/oKEnt55HL4MRZb73AcBkn20bbJCQtgY
AqWAIIShAAGgw3Njcz0Tc4MzEyOTE1DEQkoU6LjFgnjKFwXiQdAkGmG23Xk67q8+VHE6B111EzDQ1e+3
rLzMoiRW+a1p8s8lc07EX09Fa1LXqYk4iMRcgFPUSK4u9chfkjQU2Rbt3zLPKsLE/KoxQny2erIq6IoM
r0teC3VZhJ6Ce3/uV5NI3jNR8kgc1/CARqJdJ5niLHBLGf2EFG1V/+HNSeXpTa5jcm8GUB5+1dspxM5d
M8vqnDCgP7ZdhPDqFfJLxaBGLcHannecJaJ6xQAD0ZYrBzR1uEVzkv+OP/FUGAcROTWSnN1NpGRtI442
SRoGtso3q60ltsdYh8043Sx03WXDwXJt8s3mR41ZtKWN53WS0eoXS3Ea+YC4aB9WT1fN4y16emzGz9E
x8UDey/agU6HIDbhGSDWSZ7zrOKNYvejDoksvGBjqdATYgZsEZ5R0+wdBSTMEVQ031IItuQu1fDL45aQ
+LUgeatKtQijqiQCWd2RRx8M0h86k4twi9zf/vnpG0oRI0x128VjdaRKtiqfGBUTA+dsqPs0cDZSVMY
AXN1VQJoDE5F0VeKetIpF2aj8FBZYvPXsPL+ynHAEFpFfiYvJHQi0r1QdfmywSXZ12711ZDBnRrqzR91
TvbamCjgf1ado=
```

Step 1: Create a Key Pair for EC2

1. Cambié la carpeta y creé una "llave digital" que me permitirá conectarme de forma segura a mi servidor EC2.

```

USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREP5
$ aws ec2 create-key-pair --key-name MyKeyPair --query 'KeyMaterial' --output text > MyKeyPair.pem
ls
MyKeyPair.pem

USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREP5
$ ls -la
total 8
drwxr-xr-x 1 USUARIO 197121  0 Sep 23 11:34 ./
drwxr-xr-x 1 USUARIO 197121  0 Sep 23 11:28 ../
-rw-r--r-- 1 USUARIO 197121 1702 Sep 23 11:35 MyKeyPair.pem

```

2. Cambié los permisos para que solo yo pueda leer la llave

```

USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREP5
$ chmod 400 MyKeyPair.pem

USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREP5
$ ls -la
total 8
drwxr-xr-x 1 USUARIO 197121  0 Sep 23 11:34 ./
drwxr-xr-x 1 USUARIO 197121  0 Sep 23 11:28 ../
-r--r--r-- 1 USUARIO 197121 1702 Sep 23 11:35 MyKeyPair.pem

```

3. Check the fingerprint

```

USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREP5
$ aws ec2 describe-key-pairs --key-name MyKeyPair
{
  "KeyPairs": [
    {
      "KeyPairId": "key-02ff3bb3315400d4d",
      "KeyType": "rsa",
      "Tags": [],
      "CreateTime": "2025-09-23T16:35:43.882000+00:00",
      "KeyName": "MyKeyPair",
      "KeyFingerprint": "5b:be:34:03:34:90:65:74:41:64:1c:93:db:12:4a:ac:96:ac:e4:fe"
    }
  ]
}

```

Step 2: Create a Security Group

1. Revisé VPCs configured in your account

VPC

Norte de Virginia 1

▼ Solo esta región

Estados Unidos (Norte de Virginia)

1

Sus VPC (1) Información

🔍 *Buscar VPC por atributo o etiqueta*

<input type="checkbox"/>	Name	ID de la VPC
<input type="checkbox"/>	-	vpc-0e6a25b4409618b7f

```
USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREP5
$ aws ec2 create-security-group --group-name my-sg-cli --description "My security group" --vpc-id vpc-0e6a25b4409618b7f
{
  "GroupId": "sg-009e3436f77ac4998",
  "SecurityGroupArn": "arn:aws:ec2:us-east-1:767397831291:security-group/sg-009e3436f77ac4998"
}
```

2. Ver la lista de grupos

```
USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREP5
$ aws ec2 describe-security-groups --group-ids sg-009e3436f77ac4998
{
  "SecurityGroups": [
    {
      "GroupId": "sg-009e3436f77ac4998",
      "IpPermissionsEgress": [
        {
          "IpProtocol": "-1",
          "UserIdGroupPairs": [],
          "IpRanges": [
            {
              "CidrIp": "0.0.0.0/0"
            }
          ],
          "Ipv6Ranges": [],
          "PrefixListIds": []
        }
      ],
      "VpcId": "vpc-0e6a25b4409618b7f",
      "SecurityGroupArn": "arn:aws:ec2:us-east-1:767397831291:security-group/sg-009e3436f77ac4998",
      "OwnerId": "767397831291",
      "GroupName": "my-sg-cli",
      "Description": "My security group",
      "IpPermissions": []
    }
  ]
}
```

3. Allow RDP (port 3389):

```
USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREP5
$ aws ec2 authorize-security-group-ingress --group-id sg-009e3436f77ac4998 --protocol tcp --port 3389 --cidr 0.0.0.0/0
{
  "Return": true,
  "SecurityGroupRules": [
    {
      "SecurityGroupRuleId": "sgr-0fbbc770b5af3545f",
      "GroupId": "sg-009e3436f77ac4998",
      "GroupOwnerId": "767397831291",
      "IsEgress": false,
      "IpProtocol": "tcp",
      "FromPort": 3389,
      "ToPort": 3389,
      "CidrIpv4": "0.0.0.0/0",
      "SecurityGroupRuleArn": "arn:aws:ec2:us-east-1:767397831291:security-group-rule/sgr-0fbbc770b5af3545f"
    }
  ]
}
```

4. Allow SSH (port 22):

```
USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREPS
$ aws ec2 authorize-security-group-ingress --group-id sg-009e3436f77ac4998 --protocol tcp --port 22 --cidr 0.0.0.0/0
{
  "Return": true,
  "SecurityGroupRules": [
    {
      "SecurityGroupRuleId": "sgr-0bbcff5fb7d360f11",
      "GroupId": "sg-009e3436f77ac4998",
      "GroupOwnerId": "767397831291",
      "IsEgress": false,
      "IpProtocol": "tcp",
      "FromPort": 22,
      "ToPort": 22,
      "CidrIpv4": "0.0.0.0/0",
      "SecurityGroupRuleArn": "arn:aws:ec2:us-east-1:767397831291:security-group-rule/sgr-0bbcff5fb7d360f11"
    }
  ]
}
```

Step 3: Create the Instance

1. Before creating the instance, ensure you have a subnet configured.

Run the following command to launch a **t2.micro** instance:

The screenshot shows the 'Mapa de recursos' (Resource Map) in the AWS console. It displays the VPC 'vpc-0e6a25b4409618b7f' and its associated subnets. The subnets are listed under 'us-east-1a', with 'subnet-017fd4a9157be7741' highlighted. A 'Show all details' toggle is visible in the top right corner.

Mapa de recursos Información ☐ Show all details

VPC
Su red virtual de AWS
vpc-0e6a25b4409618b7f

Subnets (6)
Subredes dentro de esta VPC
us-east-1a
A subnet-017fd4a9157be7741

Step 5: List Your Instances

```
USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREP5
$ aws ec2 describe-instances --filters "Name=instance-type,Values=t2.micro" --query "Reservations[].Instances[].InstanceId"
[
  "i-07b1c0dcd3c00f92a"
]
```

Step 6: Clean Up

1. Delete the key pair:

```
USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREP5
$ aws ec2 delete-key-pair --key-name MyKeyPair
{
  "Return": true,
  "KeyPairId": "key-02ff3bb3315400d4d"
}
```

2. Delete the security group and Terminate the instance

```
USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREP5
$ aws ec2 terminate-instances --instance-ids i-07b1c0dcd3c00f92a
{
  "TerminatingInstances": [
    {
      "InstanceId": "i-07b1c0dcd3c00f92a",
      "CurrentState": {
        "Code": 32,
        "Name": "shutting-down"
      },
      "PreviousState": {
        "Code": 16,
        "Name": "running"
      }
    }
  ]
}
```

```
USUARIO@DESKTOP-R8IT589 MINGW64 ~/Documents/AREP5
$ aws ec2 delete-security-group --group-id sg-009e3436f77ac4998
{
  "Return": true,
  "GroupId": "sg-009e3436f77ac4998"
}
```

i-07b1c0dcd3c00f92a	Terminada
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