

Comprobación de la instalación de Terraform

```
PS C:\Users\pc\Documents\2023-I\CLOUD_COMPUTING\Tercer_Corte\learn-terraform-aws-instance> terraform --version
Terraform v1.4.6
on windows_amd64
+ provider registry.terraform.io/hashicorp/aws v4.67.0
```

Configuración de las variables de entorno

Variables de entorno ✕

Variables de usuario para pc

Variable	Valor
ChocolateyLastPathUpdate	133298783549063023
JAVA_HOME	C:\Program Files\Java\jdk-19
Path	C:\Users\pc\AppData\Local\Microsoft\WindowsApps;C:\Users\pc\Ap...
PhpStorm	C:\Users\pc\AppData\Local\JetBrains\PhpStorm 2022.3.2\bin;
TEMP	C:\Users\pc\AppData\Local\Temp
TMP	C:\Users\pc\AppData\Local\Temp

Nueva... Editar... Eliminar

Variables del sistema

Variable	Valor
AWS_ACCESS_KEY_ID	
AWS_SECRET_ACCESS_KEY	
ChocolateyInstall	C:\ProgramData\chocolatey
ComSpec	C:\Windows\system32\cmd.exe
DriverData	C:\Windows\System32\Drivers\DriverData
JAVA_HOME	C:\Program Files\Java\jdk-19
NUMBER_OF_PROCESSORS	4
OS	Windows_NT
Path	C:\Program Files\Common Files\Oracle\Java\javapath;C:\Windows

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Archivo main.tf

```
main.tf

terraform {
  required_providers {
    aws = {
      source  = "hashicorp/aws"
      version = "~> 4.16"
    }
  }

  required_version = ">= 1.2.0"
}

provider "aws" {
  region = "us-west-2"
}

resource "aws_instance" "app_server1" {
  ami          = "ami-830c94e3"
  instance_type = "t2.micro"

  tags = {
    Name = "ExampleAppServerInstance-${var.username}"
  }
}

resource "aws_instance" "app_server2" {
  ami          = "ami-830c94e3"
  instance_type = "t2.micro"

  tags = {
    Name = "ExampleAppServerInstance-${var.username}"
  }
}

variable "username" {
  description = "Usuario de Kevin Gómez Cantillo en AWS"
  default     = "kevin-sys"
}
```

Comandos necesarios para crear las dos instancias de EC2 con Terraform

```
Windows PowerShell
PS C:\Users\pc\Documents\2023-I\CLOUD_COMPUTING\Tercer_Corte\learn-terraform-aws-instance> terraform init
Initializing the backend...

Initializing provider plugins...
- Finding hashicorp/aws versions matching "~> 4.16"...
- Installing hashicorp/aws v4.67.0...
- Installed hashicorp/aws v4.67.0 (signed by HashiCorp)

Terraform has created a lock file .terraform.lock.hcl to record the provider
selections it made above. Include this file in your version control repository
so that Terraform can guarantee to make the same selections by default when
you run "terraform init" in the future.

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
PS C:\Users\pc\Documents\2023-I\CLOUD_COMPUTING\Tercer_Corte\learn-terraform-aws-instance> terraform fmt
main.tf
PS C:\Users\pc\Documents\2023-I\CLOUD_COMPUTING\Tercer_Corte\learn-terraform-aws-instance> terraform validate
Success! The configuration is valid.
```

Visualización de las dos instancias de EC2 en AWS

Instancias (3) Información					Conectar	Estado de la instancia ▼	Acciones ▼
🔍 Buscar instancia por atributo o etiqueta (case-sensitive)							
<input type="checkbox"/>	Name ▼	ID de la instancia	Estado de la i... ▼	Tipo de inst...			
<input type="checkbox"/>	ExampleAppServerInstance-kevin-sys	i-0a91ff46cb8d0655d	✔ En ejecución 🔍 🔍	t2.micro			
<input type="checkbox"/>	ExampleAppServerInstance	i-0f6274e527659c255	⊖ Terminada 🔍 🔍	t2.micro			
<input type="checkbox"/>	ExampleAppServerInstance-kevin-sys	i-0642c1dc810551fac	✔ En ejecución 🔍 🔍	t2.micro			

Por ultimo usamos el comando **terraform destroy** que como su nombre lo indica destruirá las dos instancias de EC2 que hicimos en el paso anterior.

```
Plan: 0 to add, 0 to change, 2 to destroy.
Do you really want to destroy all resources?
  Terraform will destroy all your managed infrastructure, as shown above.
  There is no undo. Only 'yes' will be accepted to confirm.

Enter a value: yes
aws_instance.app_server2: Destroying... [id=i-0a91ff46cb8d0655d]
aws_instance.app_server1: Destroying... [id=i-0642c1dc810551fac]
aws_instance.app_server1: Still destroying... [id=i-0642c1dc810551fac, 10s elapsed]
aws_instance.app_server2: Still destroying... [id=i-0a91ff46cb8d0655d, 10s elapsed]
aws_instance.app_server2: Still destroying... [id=i-0a91ff46cb8d0655d, 21s elapsed]
aws_instance.app_server1: Still destroying... [id=i-0642c1dc810551fac, 21s elapsed]
aws_instance.app_server1: Destruction complete after 22s
aws_instance.app_server2: Still destroying... [id=i-0a91ff46cb8d0655d, 31s elapsed]
aws_instance.app_server2: Destruction complete after 33s
Destroy complete! Resources: 2 destroyed.
```

Y en AWS vemos que las instancias fueron detenidas

Instancias (3) Información					Conectar	Estado de la instancia ▼	Acciones ▼	Lan
🔍 Buscar instancia por atributo o etiqueta (case-sensitive)								
<input type="checkbox"/>	Name ▼	ID de la instancia	Estado de la i... ▼	Tipo de inst... ▼				
<input type="checkbox"/>	ExampleAppServerInstance-kevin-sys	i-0a91ff46cb8d0655d	⊖ Terminada 🔍 🔍	t2.micro				
<input type="checkbox"/>	ExampleAppServerInstance-kevin-sys	i-0642c1dc810551fac	⊖ Terminada 🔍 🔍	t2.micro				