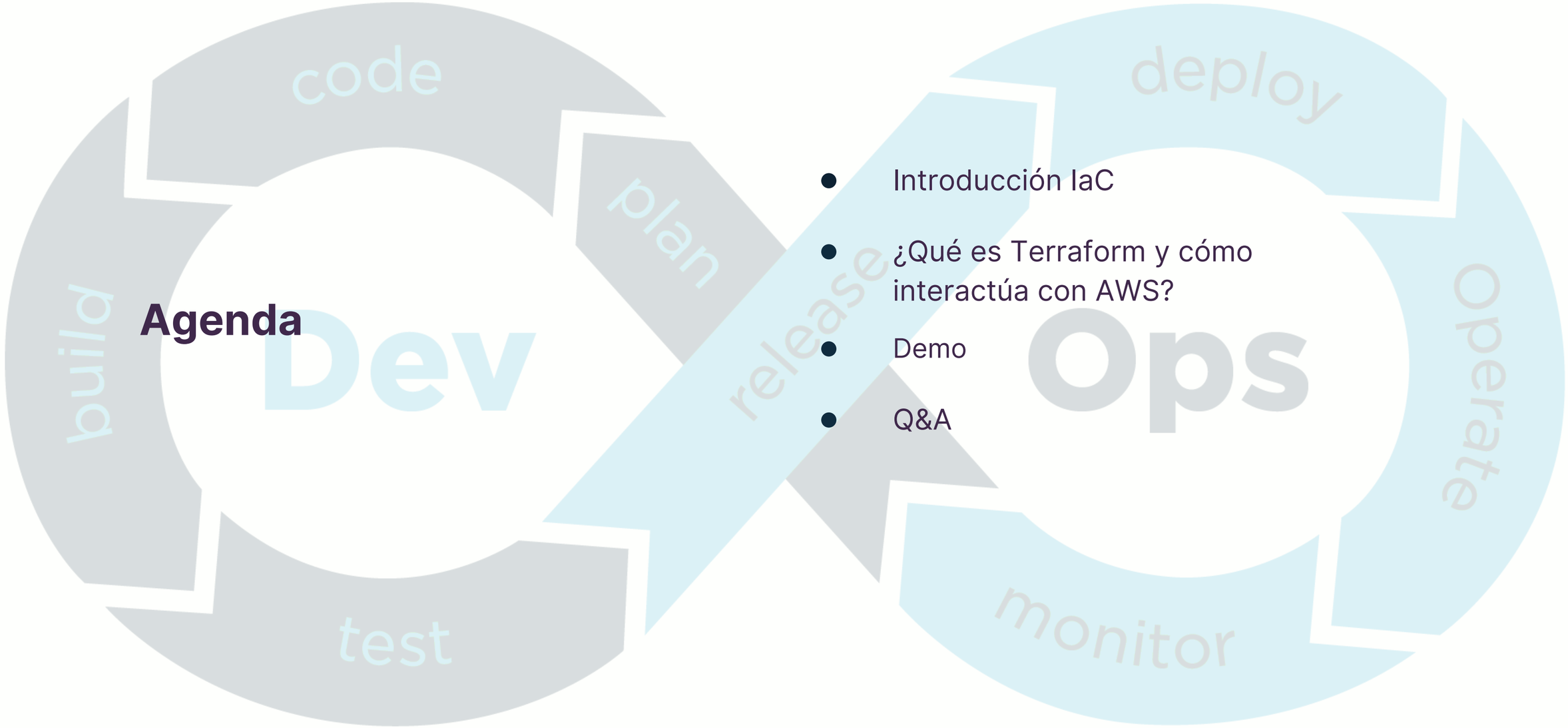
¿CÓMO CREAR INFRAESTRUCTURA EN AWS CON TERRAFORM?

Ana Karen Hernández González

Agenda

- Introducción IaC
- ¿Qué es Terraform y cómo interactúa con AWS?
- Demo
- Q&A



IAC Infraestructura como código

- La infraestructura como código se refiere al **aprovisionamiento** y la **gestión** de la infraestructura, incluido el hardware, los recursos virtuales, las plataformas, los sistemas de contenedores, los servicios y las topologías, mediante **definiciones declarativas o de guión (código)** en lugar de mediante la configuración manual o el uso de herramientas de configuración tradicionales.

Terraform

Beneficios

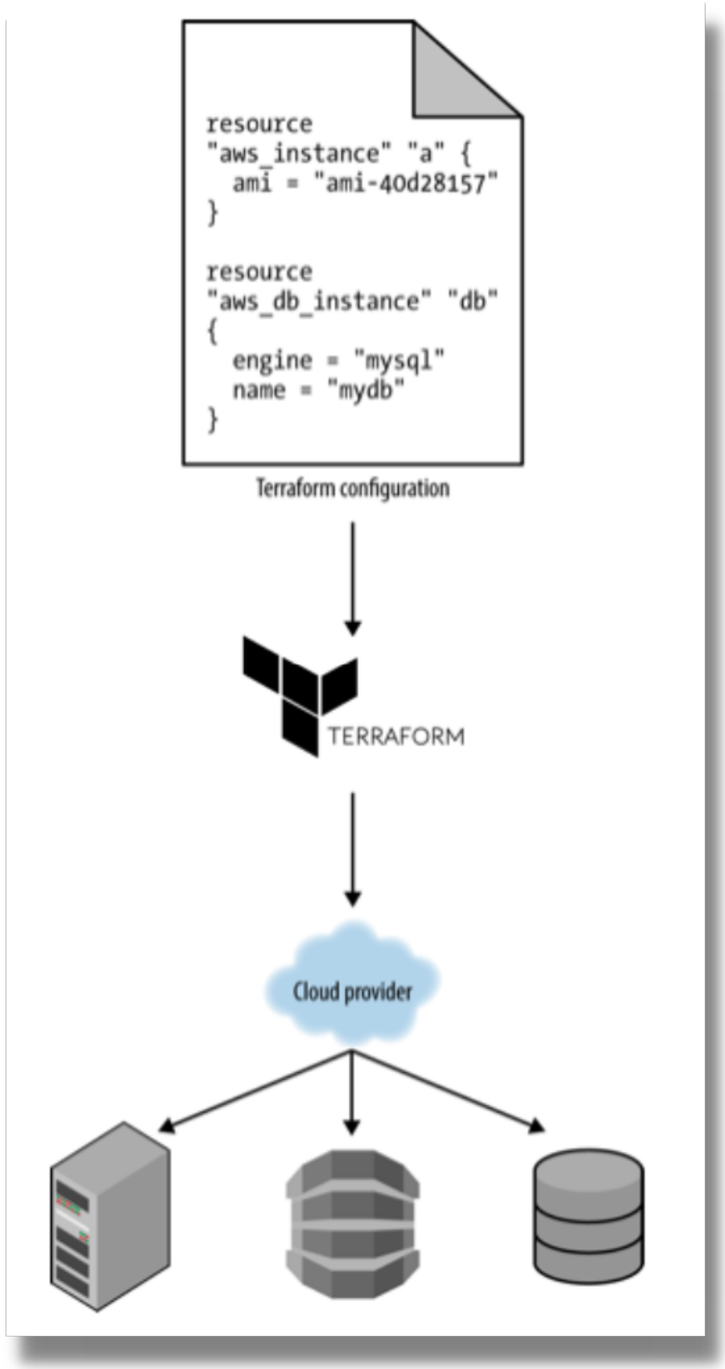
- Lenguaje declarativo
- Diferentes proveedores
- No se requiere de agente extra
- Gran comunidad
- Módulos reutilizables
- Manejo simple de estado (terraform.tfstate)

Procedimental

```
- ec2:
    count: 10
    image: ami-0c55b159cbfafe1f0
    instance_type: t2.micro
```

Declarativo

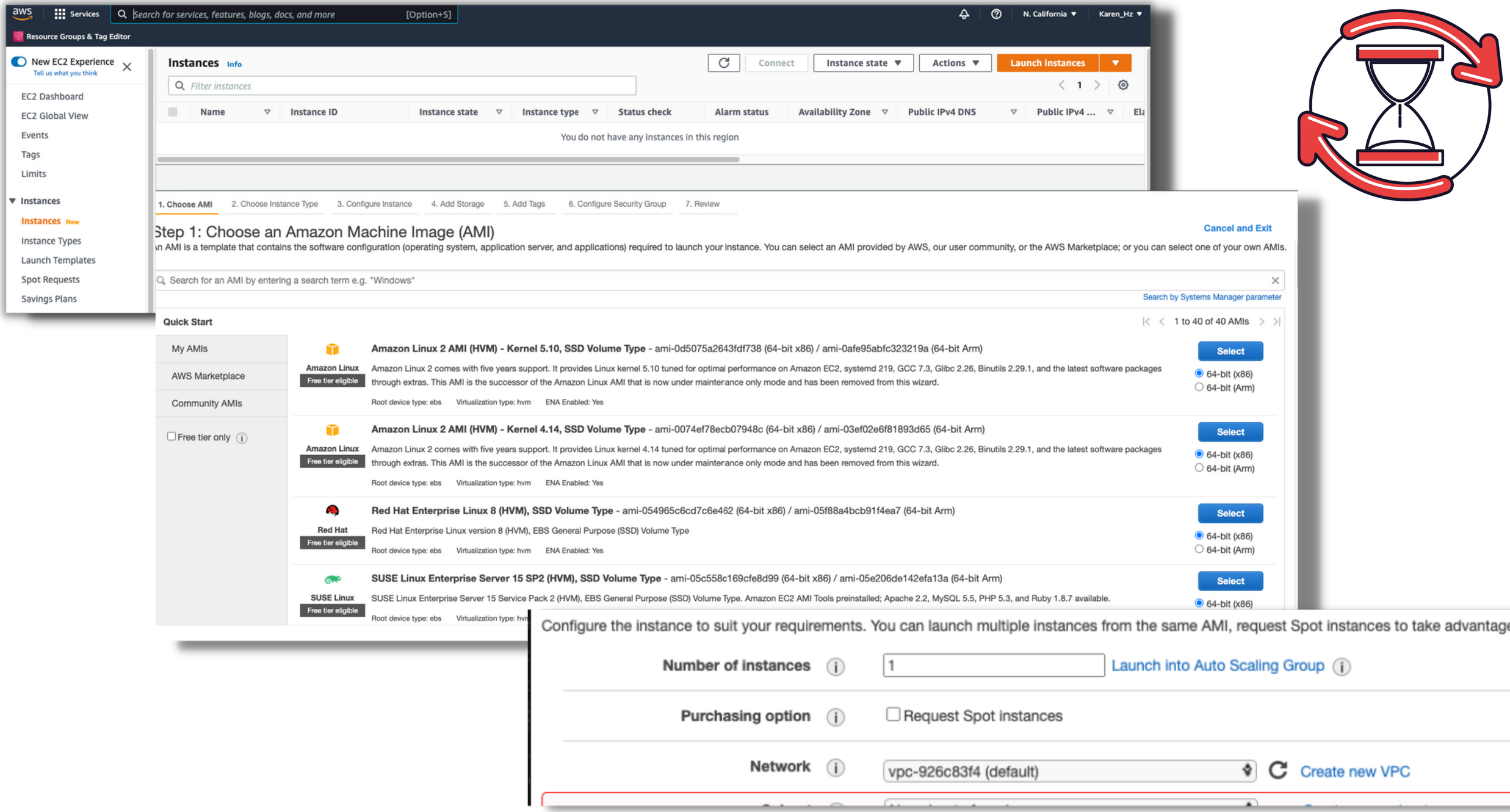
```
resource "aws_instance" "example" {
  count         = 10
  ami           = "ami-0c55b159cbfafe1f0"
  instance_type = "t2.micro"
}
```



Terraform

Terraform y AWS

aws


aws
Services
Search for services, features, blogs, docs, and more [Option+S]
N. California
Karen_Hz
Resource Groups & Tag Editor
New EC2 Experience
Tell us what you think
EC2 Dashboard
EC2 Global View
Events
Tags
Limits
Instances
Instances New
Instance Types
Launch Templates
Spot Requests
Savings Plans
Instances Info
Connect
Instance state
Actions
Launch instances
Filter instances
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
Public IPv4 DNS
Public IPv4 ...
You do not have any instances in this region
1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review
Step 1: Choose an Amazon Machine Image (AMI)
Cancel and Exit
An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.
Search for an AMI by entering a search term e.g. "Windows"
Search by Systems Manager parameter
Quick Start
1 to 40 of 40 AMIs
My AMIs
AWS Marketplace
Community AMIs
Free tier only
Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type - ami-0d5075a2643fdf738 (64-bit x86) / ami-0afe95abfc323219a (64-bit Arm)
Amazon Linux
Free tier eligible
Amazon Linux 2 comes with five years support. It provides Linux kernel 5.10 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is now under maintenance only mode and has been removed from this wizard.
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
Select
64-bit (x86)
64-bit (Arm)
Amazon Linux 2 AMI (HVM) - Kernel 4.14, SSD Volume Type - ami-0074ef78ecb07948c (64-bit x86) / ami-03ef02e6f81893d65 (64-bit Arm)
Amazon Linux
Free tier eligible
Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is now under maintenance only mode and has been removed from this wizard.
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
Select
64-bit (x86)
64-bit (Arm)
Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-054965c6cd7c6e462 (64-bit x86) / ami-05f88a4bcb91f4ea7 (64-bit Arm)
Red Hat
Free tier eligible
Red Hat Enterprise Linux version 8 (HVM), EBS General Purpose (SSD) Volume Type
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
Select
64-bit (x86)
64-bit (Arm)
SUSE Linux Enterprise Server 15 SP2 (HVM), SSD Volume Type - ami-05c558c169cfe8d99 (64-bit x86) / ami-05e206de142efa13a (64-bit Arm)
SUSE Linux
Free tier eligible
SUSE Linux Enterprise Server 15 Service Pack 2 (HVM), EBS General Purpose (SSD) Volume Type. Amazon EC2 AMI Tools preinstalled; Apache 2.2, MySQL 5.5, PHP 5.3, and Ruby 1.8.7 available.
Root device type: ebs
Select
64-bit (x86)
Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of
Number of instances
1
Launch into Auto Scaling Group
Purchasing option
Request Spot instances
Network
vpc-926c83f4 (default)
Create new VPC

Demo

- Terraform Instalado
- AWS CLI instalado
- Cuenta en AWS

https://github.com/Karen-Heez/devops-terraform-aws


THANK YOU