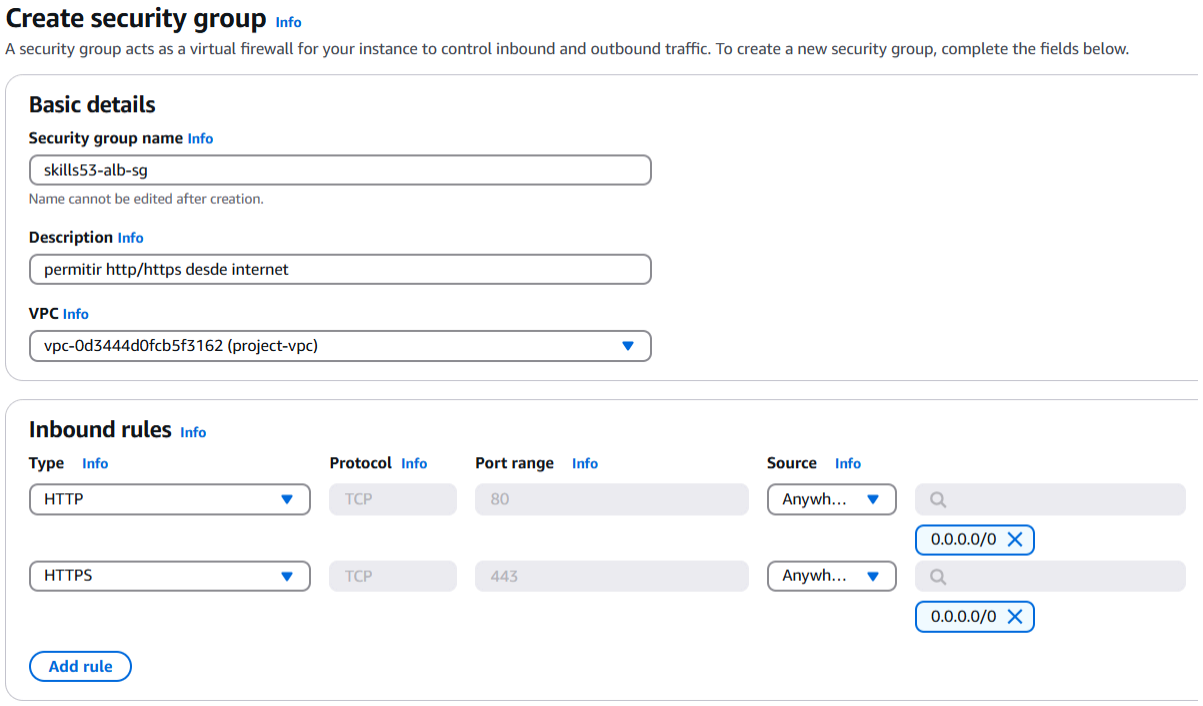
Activitat 1: Desplegament d'un CMS (wordpress) sobre EC2

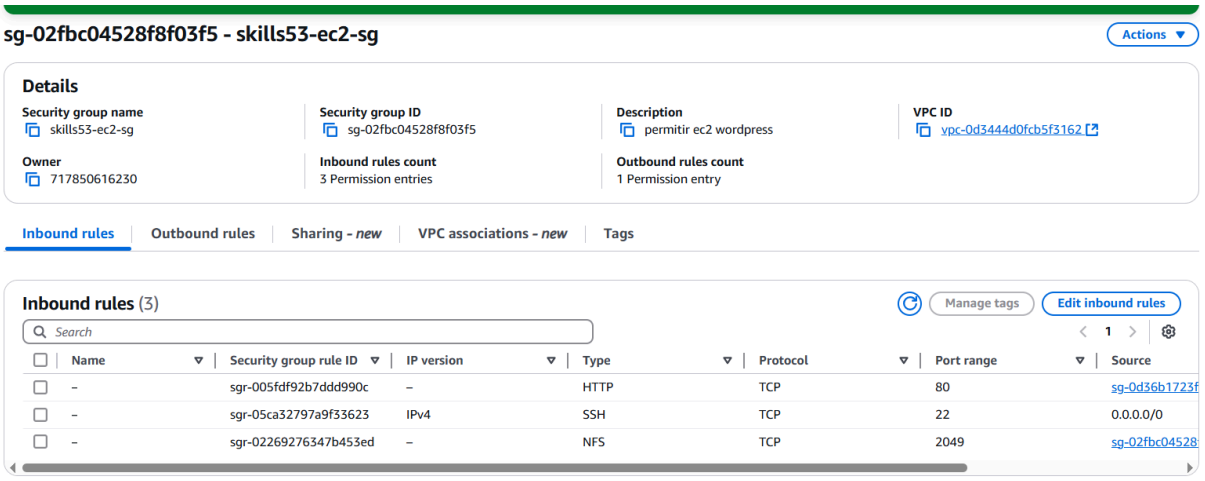
Crear VPC

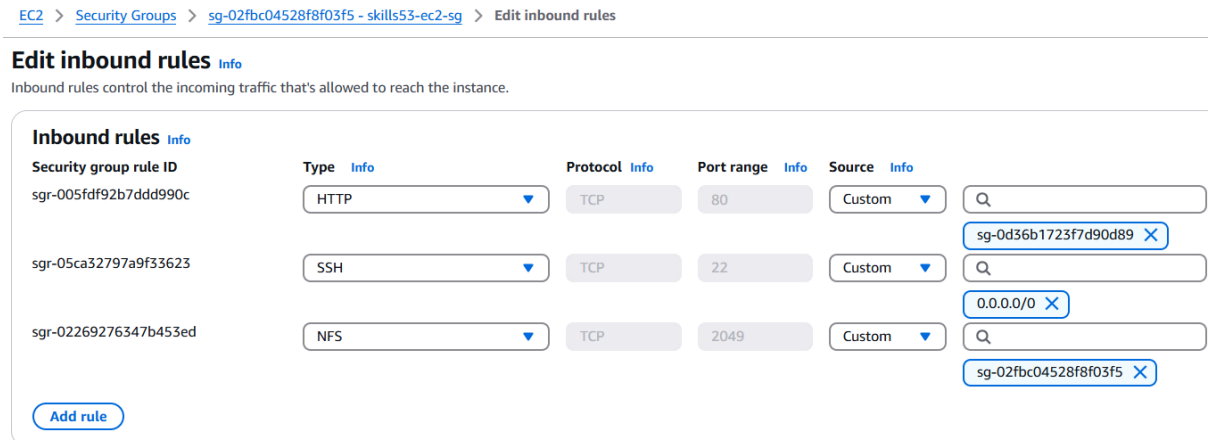
Crear SG

sg-alb

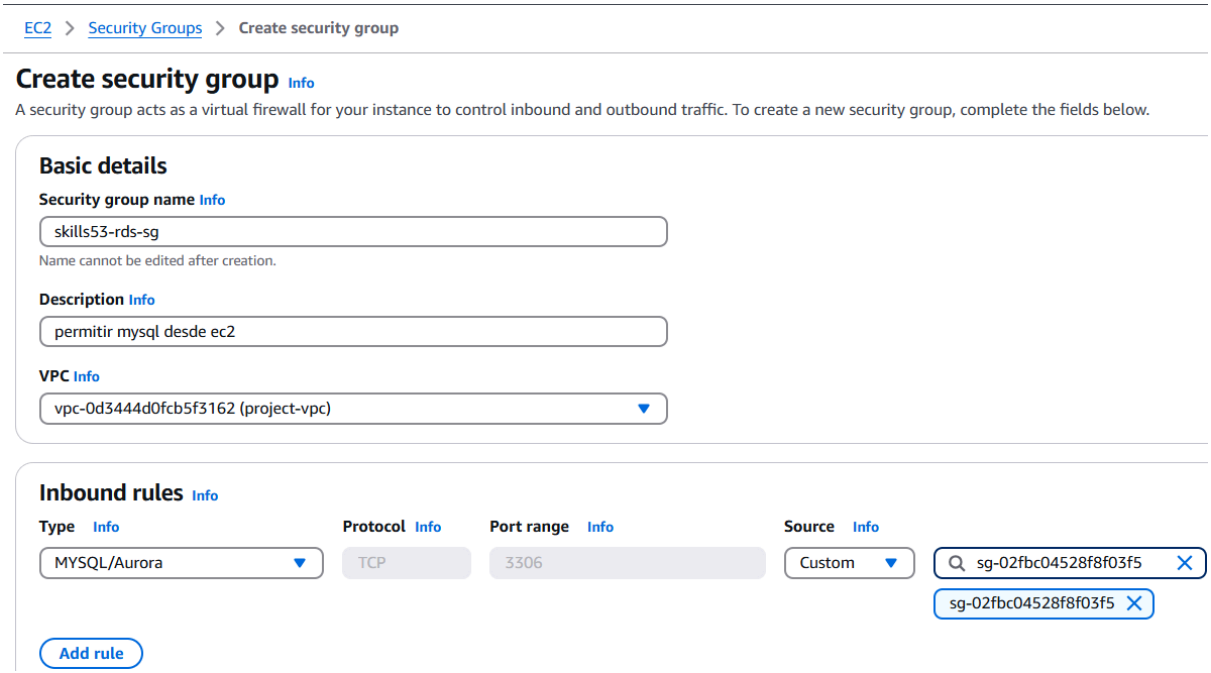


sg-ec2

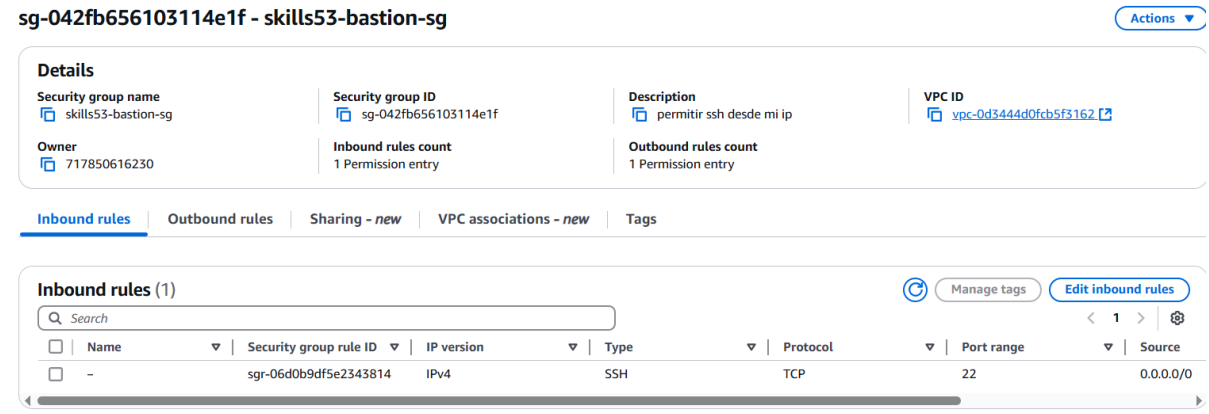




sg-rds



sg-bastionhost



sg-efs

EC2 > Security Groups > Create security group

Create security group Info

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Basic details

Security group name Info

skills53-efs-sg

Name cannot be edited after creation.

Description Info

permitir nfs desde ec2

VPC Info

vpc-0d3444d0fcb5f3162 (project-vpc)

Inbound rules Info

Type Info	Protocol Info	Port range Info	Source Info		Descriptio
NFS	TCP	2049	Custom	sg-02fbc04528f8f03f5	

sg-02fbc04528f8f03f5

Add rule

Crear efs

Network access

Network

Virtual Private Cloud (VPC) Learn more

Choose the VPC where you want EC2 instances to connect to your file system.

vpc-0d3444d0fcb5f3162
project-vpc

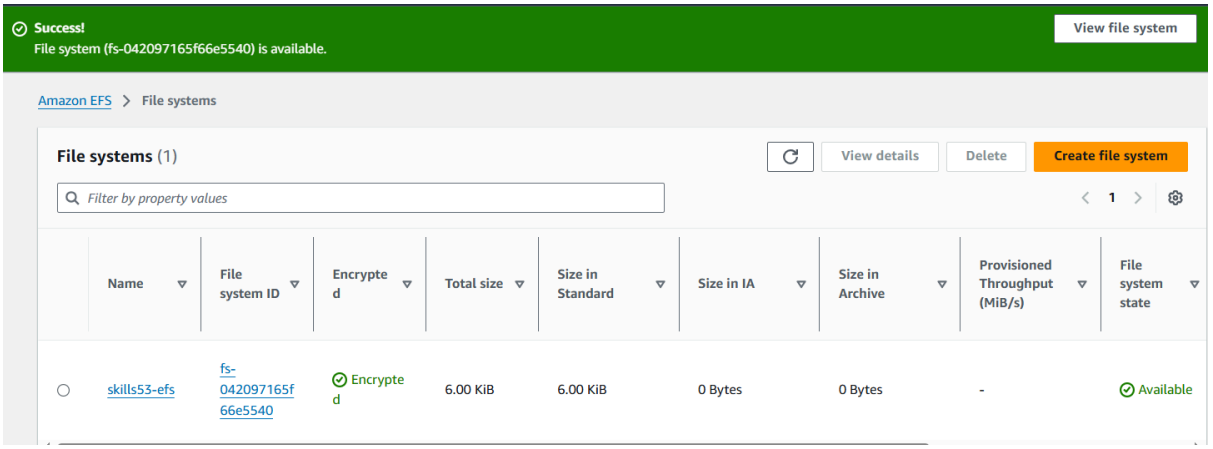
Mount targets

A mount target provides an NFSv4 endpoint at which you can mount an Amazon EFS file system. We recommend creating one mount target per Availability Zone. Learn more

Availability zone	Subnet ID	IP address	Security groups	
us-east-1a	subnet-06621aa0d93f...	Automatic	Choose security groups sg-0a834d9400d125271 skills53-efs-sg	Remove
us-east-1b	subnet-032b0b0e97d9...	Automatic	Choose security groups sg-0a834d9400d125271 skills53-efs-sg	Remove
us-east-1c	subnet-0a2a359ff883f...	Automatic	Choose security groups sg-0a834d9400d125271 skills53-efs-sg	Remove

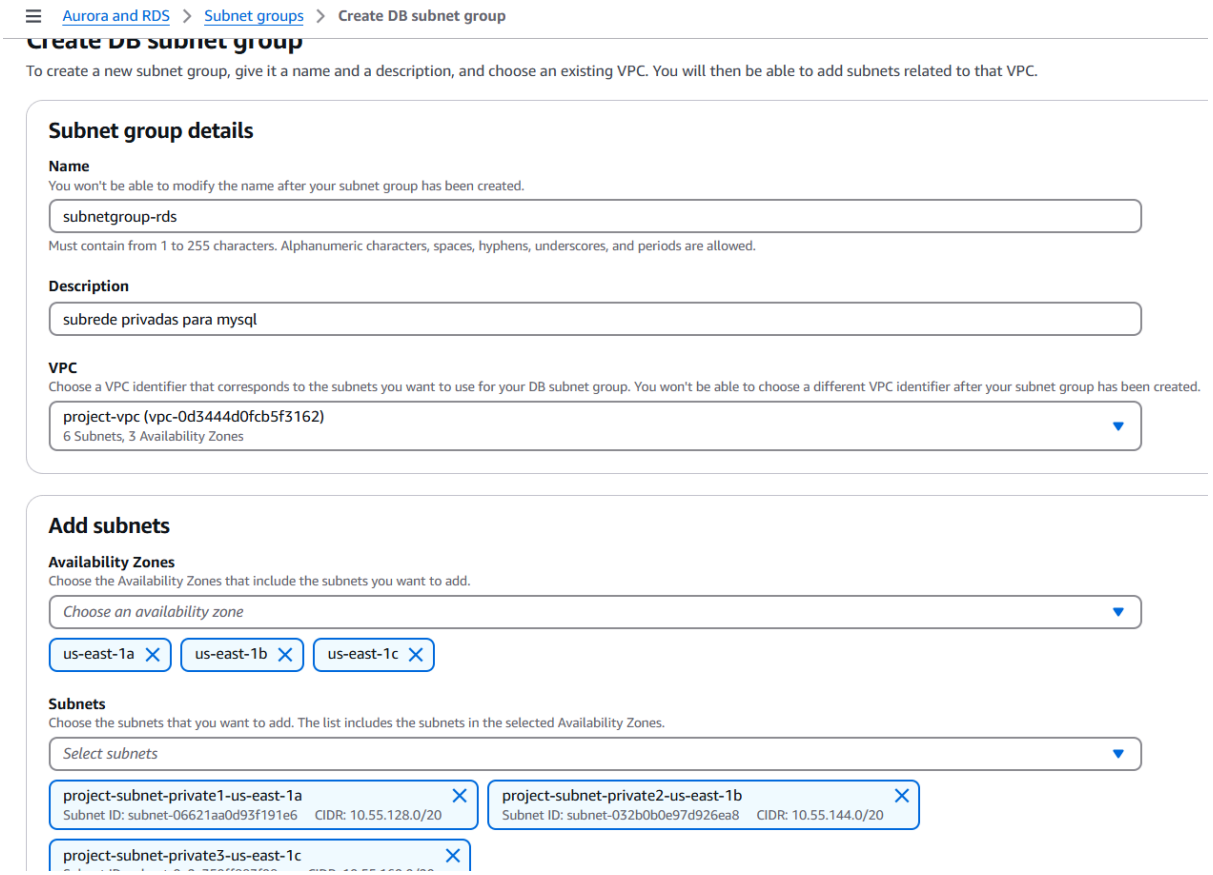
Add mount target

Cancel Previous Next

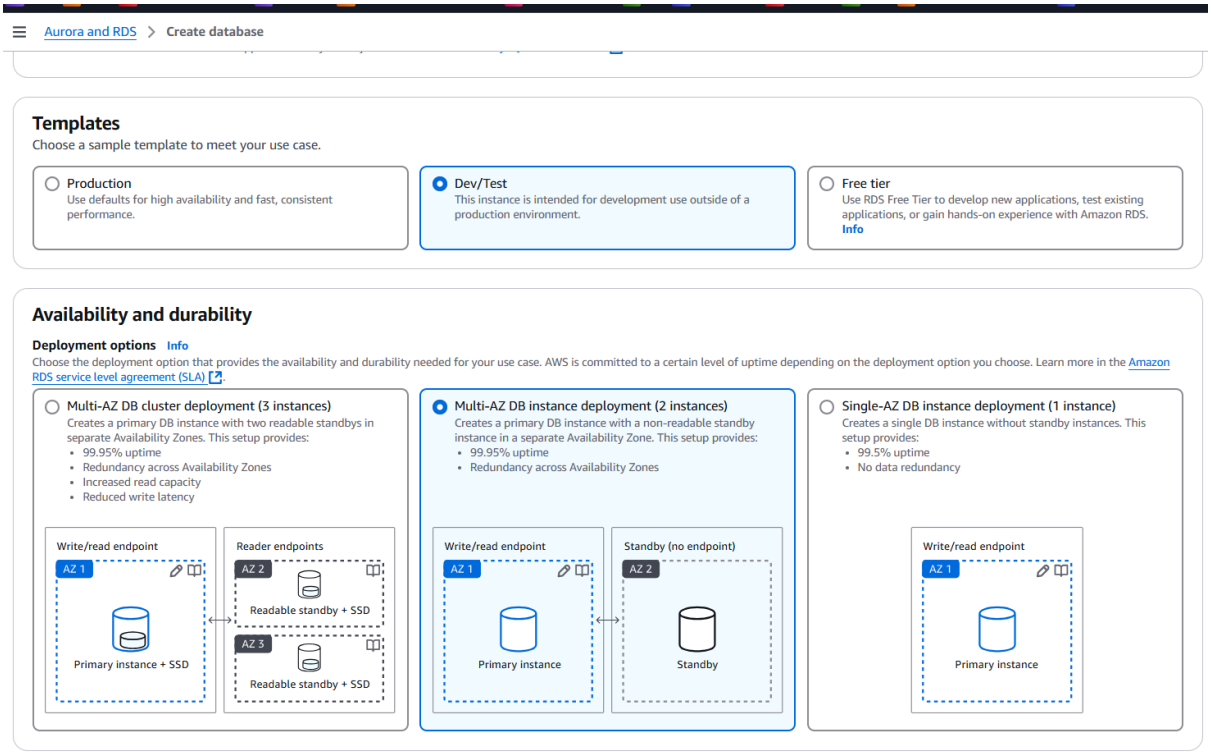


EFS proporciona almacenamiento compartido para que todas las ec2 de wordpress puedan acceder a los mismos archivos.

CREAR SUBNET GROUP RDS

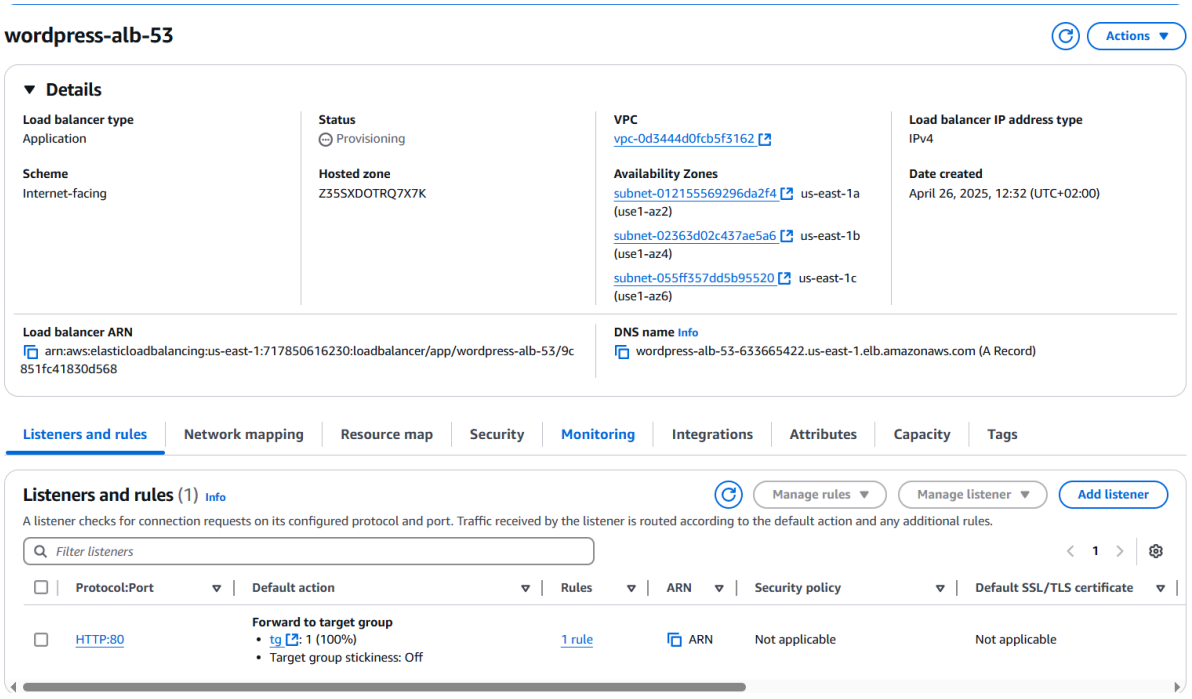


CREAR RDS

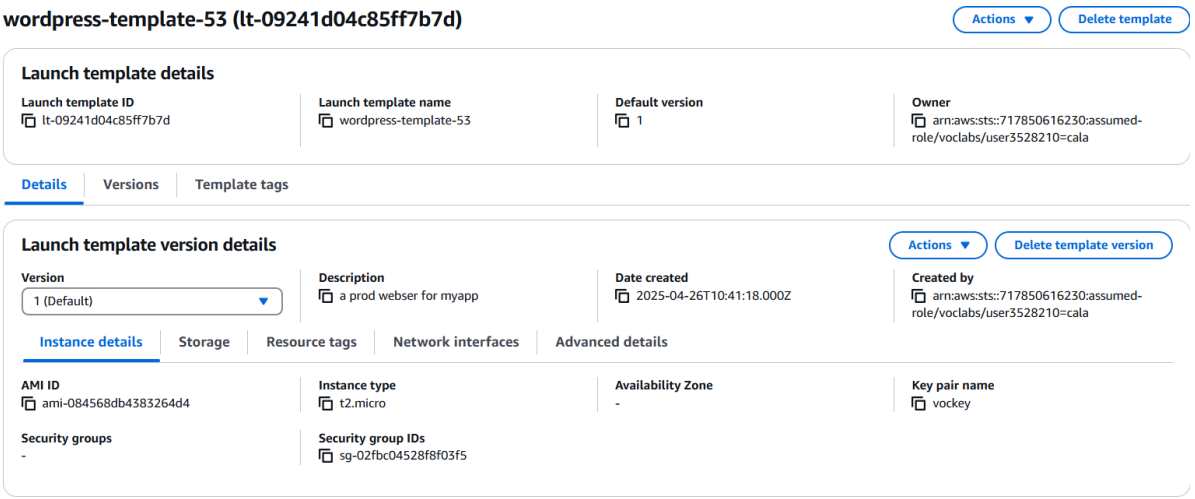


RDS Multi-AZ proporciona alta disponibilidad para la base de datos, con una réplica en espera en otra zona de disponibilidad.

CREA ALB y TG



CREAR UN TEMPLATE DE LANZAINEDO PARA EC2

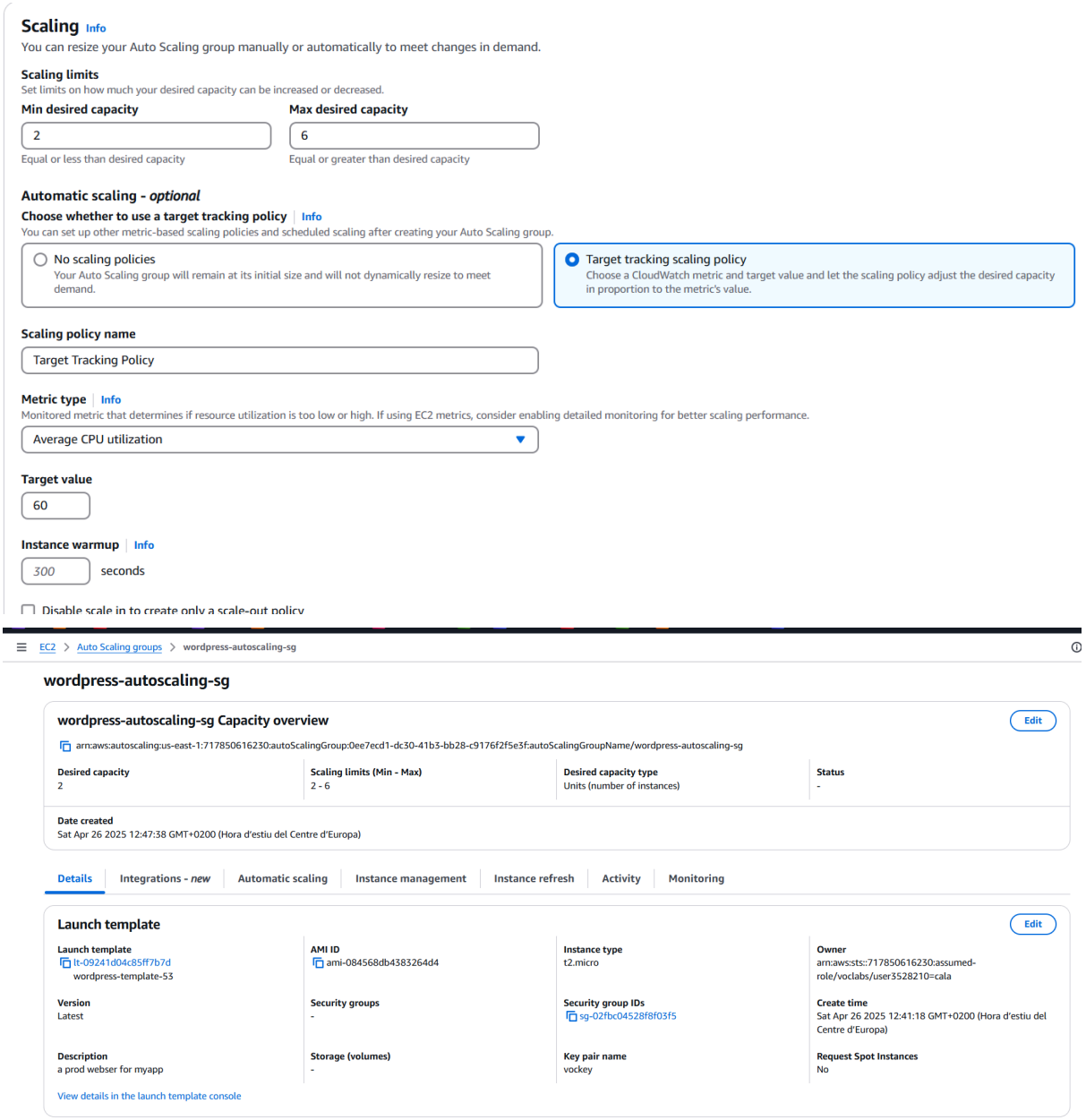


scrip:

```
#!/bin/bash
apt update
apt upgrade -y

# Instalar dependencias
apt install -y apache2 php php-mysql php-curl php-gd php-mbstring php-xml
php-xmlrpc php-soap php-intl php-zip nfs-common

# Instalar AWS CLI
apt install -y awscli

# Configurar montaje EFS
mkdir -p /var/www/html/wordpress
echo "fs-042097165f66e5540.efs.us-east-1.amazonaws.com:/
/var/www/html/wordpress nfs4
nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,_netdev 0 0" >>
/etc/fstab
mount -a

# Si es la primera instancia, descargar e instalar WordPress
if [ ! -f /var/www/html/wordpress/wp-config.php ]; then
  cd /tmp
  wget https://wordpress.org/latest.tar.gz
  tar -xzf latest.tar.gz
  cp -r wordpress/* /var/www/html/wordpress/
  chown -R www-data:www-data /var/www/html/wordpress/

  # Configurar wp-config.php
  cp /var/www/html/wordpress/wp-config-sample.php
/var/www/html/wordpress/wp-config.php
```

```
  sed -i "s/database_name_here/wordpress/"
/var/www/html/wordpress/wp-config.php
  sed -i "s/username_here/wordpressadmin/"
/var/www/html/wordpress/wp-config.php
  sed -i "s/password_here/LnHfpeccPQKk0Uasc3tO/"
/var/www/html/wordpress/wp-config.php
  sed -i "s/localhost/wordpress.c5y99z4gvpom.us-east-1.rds.amazonaws.com/"
/var/www/html/wordpress/wp-config.php

  # Añadir claves de autenticación
  SALT=$(curl -s https://api.wordpress.org/secret-key/1.1/salt/)
  SALT="${SALT//\$/\\$}"
  sed -i "/define( 'AUTH_KEY'/,/define( 'NONCE_SALT'/ d"
/var/www/html/wordpress/wp-config.php
  echo "$SALT" >> /var/www/html/wordpress/wp-config.php

  # Configurar para múltiples servidores
  echo "define('FS_METHOD', 'direct');" >> /var/www/html/wordpress/wp-config.php
fi

# Configurar Apache
cat > /etc/apache2/sites-available/wordpress.conf << EOF
<VirtualHost *:80>
    DocumentRoot /var/www/html/wordpress
    <Directory /var/www/html/wordpress>
        AllowOverride All
        Require all granted
    </Directory>
    ErrorLog \${APACHE_LOG_DIR}/error.log
    CustomLog \${APACHE_LOG_DIR}/access.log combined
</VirtualHost>
EOF

a2ensite wordpress.conf
a2enmod rewrite
systemctl restart apache2

# Mostrar finalización
echo "Instalación de WordPress completada"
```

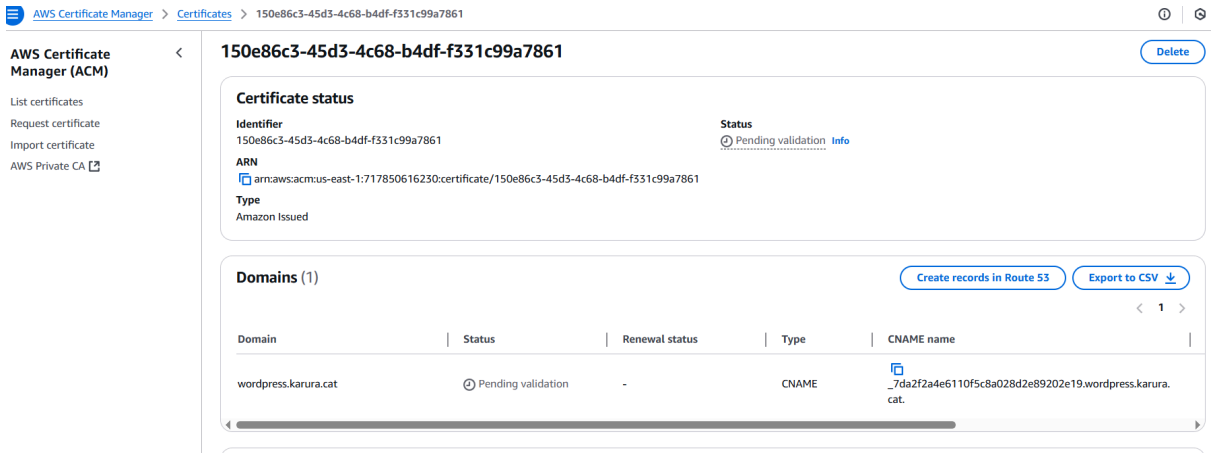
Crear grupo de auto scaling



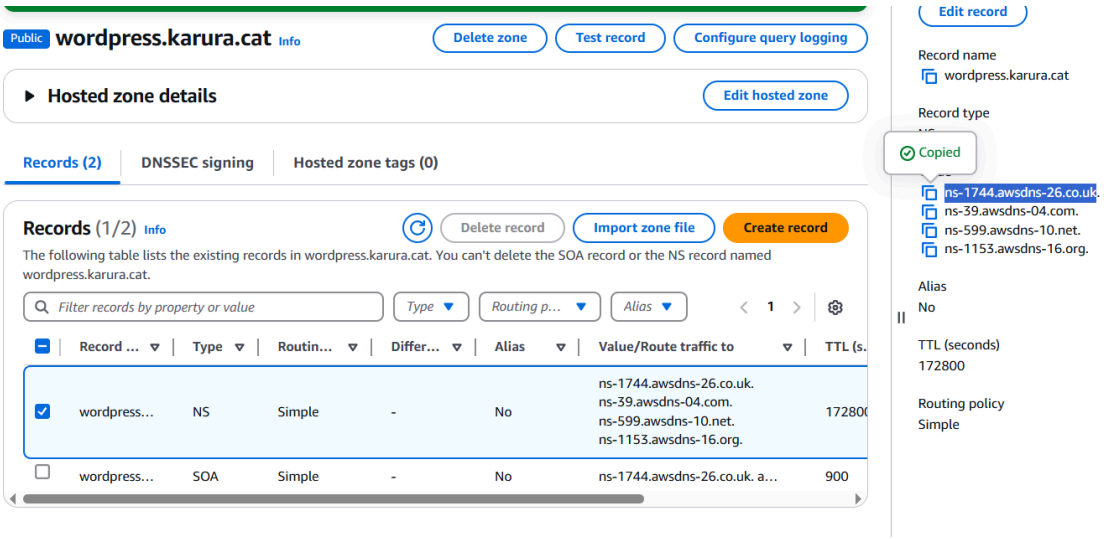
Auto scaling group mantiene el numero deseeado de ec2 y las escala automaitimente segun la carga de cpu.

infraestrcutura creada

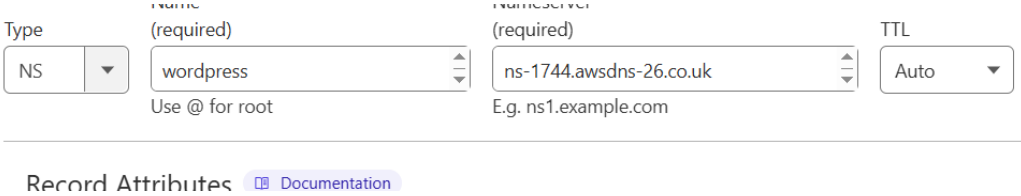
crear certificado acm



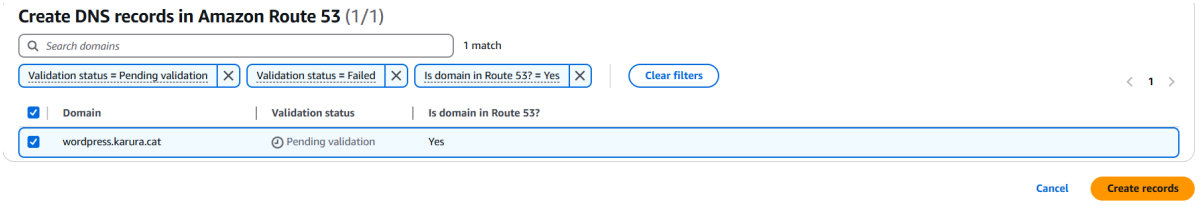
crear route 53 hosted zone

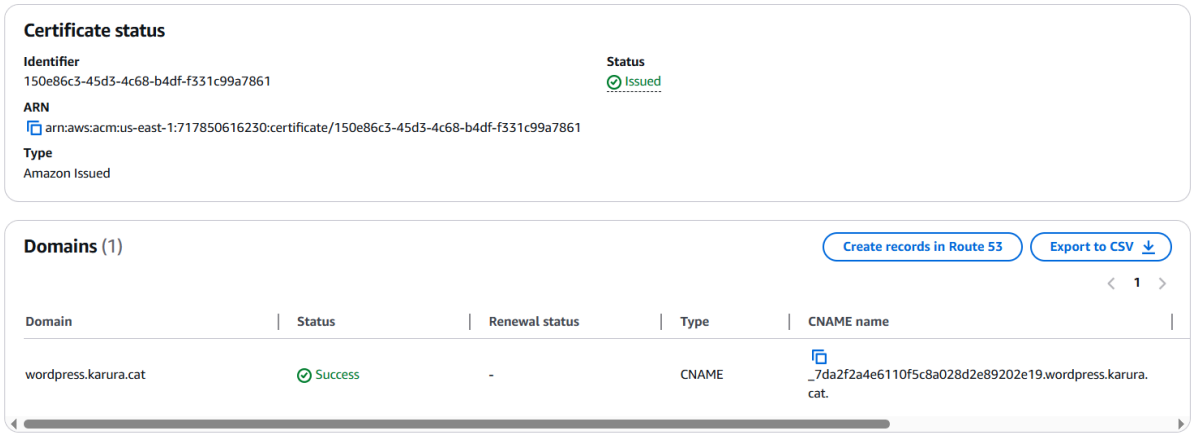


Cloudflare

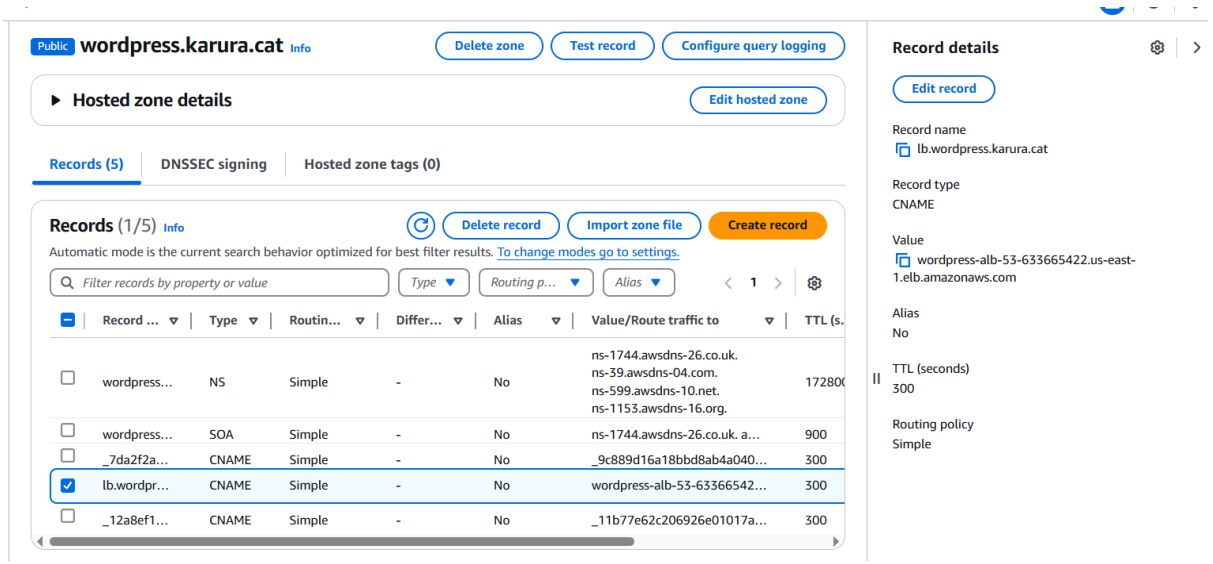


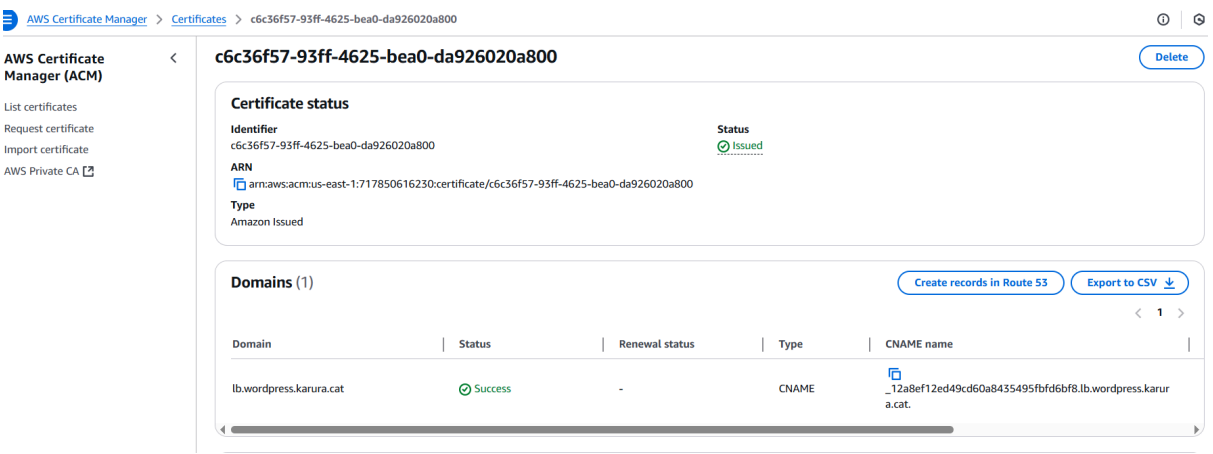
emitir el certificado





cree un nuevo registro para lb para mi wordpress





listo

acm proporciona certifacdo ssl gratuiso para aceder a con servico aws como el alb

configurar lb