

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

Crear VPC

Crear SG

sg-alb

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-alb-sg

Name cannot be edited after creation.

Description [Info](#)

permitir http/https desde internet

VPC [Info](#)

vpc-0d3444d0fcb5f3162 (project-vpc)

Inbound rules [Info](#)

Type [Info](#)

HTTP

Protocol [Info](#)

TCP

Port range [Info](#)

80

Source [Info](#)

Anywh...

0.0.0.0/0

HTTPS

TCP

443

Anywh...

0.0.0.0/0

Add rule

sg-ec2

sg-02fbc04528f8f03f5 - skills53-ec2-sg

Actions

Details

Security group name

skills53-ec2-sg

Security group ID

sg-02fbc04528f8f03f5

Description

permitir ec2 wordpress

VPC ID

vpc-0d3444d0fcb5f3162

Owner

717850616230

Inbound rules count

3 Permission entries

Outbound rules count

1 Permission entry

Inbound rules

Outbound rules

Sharing - new

VPC associations - new

Tags

Inbound rules (3)

Manage tags

Edit inbound rules

Search

	Name	Security group rule ID	IP version	Type	Protocol	Port range	Source
<input type="checkbox"/>	-	sgr-005fdf92b7ddd990c	-	HTTP	TCP	80	sg-0d36b1723f
<input type="checkbox"/>	-	sgr-05ca32797a9f33623	IPv4	SSH	TCP	22	0.0.0.0/0
<input type="checkbox"/>	-	sgr-02269276347b453ed	-	NFS	TCP	2049	sg-02fbc04528

Edit inbound rules [Info](#)

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules [Info](#)

Security group rule ID

sgr-005fdf92b7ddd990c

Type [Info](#)

HTTP

Protocol [Info](#)

TCP

Port range [Info](#)

80

Source [Info](#)

Custom

Q

sg-0d36b1723f7d90d89

sg-05ca32797a9f33623

SSH

TCP

22

Custom

Q

0.0.0.0/0

sg-02269276347b453ed

NFS

TCP

2049

Custom

Q

sg-02fbc04528f8f03f5

Add rule

sg-rds

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-rds-sg

Name cannot be edited after creation.

Description [Info](#)

permitir mysql desde ec2

VPC [Info](#)

vpc-0d3444d0fcb5f3162 (project-vpc)

Inbound rules [Info](#)

Type [Info](#)

MYSQL/Aurora

Protocol [Info](#)

TCP

Port range [Info](#)

3306

Source [Info](#)

Custom

Q sg-02fbc04528f8f03f5

sg-02fbc04528f8f03f5

Add rule

sg-bastionhost

sg-042fb656103114e1f - skills53-bastion-sg

Actions

Details

Security group name

skills53-bastion-sg

Security group ID

sg-042fb656103114e1f

Description

permitir ssh desde mi ip

VPC ID

vpc-0d3444d0fcb5f3162

Owner

717850616230

Inbound rules count

1 Permission entry

Outbound rules count

1 Permission entry

Inbound rules

Outbound rules

Sharing - new

VPC associations - new

Tags

Inbound rules (1)

Manage tags

Edit inbound rules

Q Search

< 1 >

<input type="checkbox"/>	Name	Security group rule ID	IP version	Type	Protocol	Port range	Source
<input type="checkbox"/>	-	sgr-06d0b9df5e2343814	IPv4	SSH	TCP	22	0.0.0.0/0

sg-efs

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](#)

Name cannot be edited after creation.

Description [Info](#)

VPC [Info](#)

Inbound rules [Info](#)

Type [Info](#)

Protocol [Info](#)

Port range [Info](#)

Source [Info](#)

Description

[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.

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

[Remove](#)
skills53-efs-sg[Remove](#)
skills53-efs-sg[Remove](#)
skills53-efs-sg[Add mount target](#)[Cancel](#)[Previous](#)[Next](#)

Success!
 File system (fs-042097165f66e5540) is available.

View file system

[Amazon EFS](#) > File systems

File systems (1)

Filter by property values

View details

Delete

Create file system

	Name	File system ID	Encrypte d	Total size	Size in Standard	Size in IA	Size in Archive	Provisioned Throughput (MiB/s)	File system state
	skills53-efs	fs-042097165f66e5540	Encrypte d	6.00 KiB	6.00 KiB	0 Bytes	0 Bytes	-	Available

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

CREAR SUBNET GROUP RDS

Aurora and RDS

Subnet groups

Create DB subnet group

Create DB subnet group

To create a new subnet group, give it a name and a description, and choose an existing VPC. You will then be able to add subnets related to that VPC.

Subnet group details

Name
 You won't be able to modify the name after your subnet group has been created.

Must contain from 1 to 255 characters. Alphanumeric characters, spaces, hyphens, underscores, and periods are allowed.

Description

VPC
 Choose a VPC identifier that corresponds to the subnets you want to use for your DB subnet group. You won't be able to choose a different VPC identifier after your subnet group has been created.

6 Subnets, 3 Availability Zones

Add subnets

Availability Zones
 Choose the Availability Zones that include the subnets you want to add.

us-east-1a

us-east-1b

us-east-1c

Subnets
 Choose the subnets that you want to add. The list includes the subnets in the selected Availability Zones.

project-subnet-private1-us-east-1a

Subnet ID: subnet-06621aa0d93f191e6 CIDR: 10.55.128.0/20

project-subnet-private2-us-east-1b

Subnet ID: subnet-032b0b0e97d926ea8 CIDR: 10.55.144.0/20

project-subnet-private3-us-east-1c

Subnet ID: subnet-032b0b0e97d926ea8 CIDR: 10.55.144.0/20

CREAR RDS

Aurora and RDS

Create database

Templates

Choose a sample template to meet your use case.

☐ Production
 Use defaults for high availability and fast, consistent performance.

☒ Dev/Test
 This instance is intended for development use outside of a production environment.

☐ Free tier
 Use RDS Free Tier to develop new applications, test existing applications, or gain hands-on experience with Amazon RDS.
 [Info](#)

Availability and durability

Deployment options

Info

Choose the deployment option that provides the availability and durability needed for your use case. AWS is committed to a certain level of uptime depending on the deployment option you choose. Learn more in the [Amazon RDS service level agreement \(SLA\)](#).

☐ Multi-AZ DB cluster deployment (3 instances)
 Creates a primary DB instance with two readable standbys in separate Availability Zones. This setup provides:

- 99.95% uptime
- Redundancy across Availability Zones
- Increased read capacity
- Reduced write latency

☒ Multi-AZ DB instance deployment (2 instances)
 Creates a primary DB instance with a non-readable standby instance in a separate Availability Zone. This setup provides:

- 99.95% uptime
- Redundancy across Availability Zones

☐ Single-AZ DB instance deployment (1 instance)
 Creates a single DB instance without standby instances. This setup provides:

- 99.5% uptime
- No data redundancy

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

wordpress-alb-53

Actions

▼ Details

Load balancer type

Application

Status

Provisioning

VPC

vpc-0d3444d0fcb5f3162

Load balancer IP address type

IPv4

Scheme

Internet-facing

Hosted zone

Z35SXDOTRQ7X7K

Availability Zones

subnet-012155569296da2f4 us-east-1a (use1-az2)
 subnet-02363d02c437ae5a6 us-east-1b (use1-az4)
 subnet-055ff357dd5b95520 us-east-1c (use1-az6)

Date created

April 26, 2025, 12:32 (UTC+02:00)

Load balancer ARN

arn:aws:elasticloadbalancing:us-east-1:717850616230:loadbalancer/app/wordpress-alb-53/9c851fc41830d568

DNS name

wordpress-alb-53-633665422.us-east-1.elb.amazonaws.com (A Record)

Listeners and rules

Network mapping

Resource map

Security

Monitoring

Integrations

Attributes

Capacity

Tags

Listeners and rules (1)

Info

Manage rules

Manage listener

Add listener

A listener checks for connection requests on its configured protocol and port. Traffic received by the listener is routed according to the default action and any additional rules.

Filter listeners

Protocol:Port

Default action

Rules

ARN

Security policy

Default SSL/TLS certificate

☐ HTTP:80

Forward to target group

tg 1 (100%)
 Target group stickiness: Off

1 rule

ARN

Not applicable

Not applicable

CREAR UN TEMPLATE DE LANZAINEDO PARA EC2

wordpress-template-53 (lt-09241d04c85ff7b7d)

[Actions](#)[Delete template](#)

Launch template details

Launch template ID
lt-09241d04c85ff7b7d

Launch template name
wordpress-template-53

Default version
1

Owner
arn:aws:sts::717850616230:assumed-role/voclabs/user3528210=cala

[Details](#)[Versions](#)[Template tags](#)

Launch template version details

[Actions](#)[Delete template version](#)

Version

1 (Default)

Description

a prod webser for myapp

Date created

2025-04-26T10:41:18.000Z

Created by

arn:aws:sts::717850616230:assumed-role/voclabs/user3528210=cala

[Instance details](#)[Storage](#)[Resource tags](#)[Network interfaces](#)[Advanced details](#)

AMI ID

ami-084568db4383264d4

Instance type

t2.micro

Availability Zone

-

Key pair name

vockey

Security groups

-

Security group IDs

sg-02fbc04528f8f03f5

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,wsiz=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

Scaling [Info](#)

You can resize your Auto Scaling group manually or automatically to meet changes in demand.

Scaling limits

Set limits on how much your desired capacity can be increased or decreased.

Min desired capacity

Equal or less than desired capacity

Max desired capacity

Equal or greater than desired capacity

Automatic scaling - optional

Choose whether to use a target tracking policy | [Info](#)

You can set up other metric-based scaling policies and scheduled scaling after creating your Auto Scaling group.

☐ No scaling policies

Your Auto Scaling group will remain at its initial size and will not dynamically resize to meet demand.

☒ Target tracking scaling policy

Choose a CloudWatch metric and target value and let the scaling policy adjust the desired capacity in proportion to the metric's value.

Scaling policy name

Metric type | [Info](#)

Monitored metric that determines if resource utilization is too low or high. If using EC2 metrics, consider enabling detailed monitoring for better scaling performance.

Target value

Instance warmup | [Info](#)

seconds

☐ Disable scale in to create only a scale-out policy

[EC2](#) > [Auto Scaling groups](#) > wordpress-autoscaling-sg

1

wordpress-autoscaling-sg

wordpress-autoscaling-sg Capacity overview

[Edit](#)

[arn:aws:autoscaling:us-east-1:717850616230:autoScalingGroup:0ee7ecd1-dc30-41b3-bb28-c9176f2f5e3f:autoScalingGroupName/wordpress-autoscaling-sg](#)

Desired capacity

2

Scaling limits (Min - Max)

2 - 6

Desired capacity type

Units (number of instances)

Status

-

Date created

Sat Apr 26 2025 12:47:38 GMT+0200 (Hora d'estiu del Centre d'Europa)

Details

Integrations - new

Automatic scaling

Instance management

Instance refresh

Activity

Monitoring

Launch template

[Edit](#)

Launch template

[lt-09241d04c85f7b7d](#)
wordpress-template-53

Version

Latest

Description

a prod webser for myapp

[View details in the launch template console](#)

AMI ID

[ami-084568db4383264d4](#)

Security groups

-

Storage (volumes)

-

Instance type

t2.micro

Security group IDs

[sg-02fbc04528f8f03f5](#)

Key pair name

vockey

Owner

arn:aws:sts::717850616230:assumed-role/voclabs/user3528210-cala

Create time

Sat Apr 26 2025 12:41:18 GMT+0200 (Hora d'estiu del Centre d'Europa)

Request Spot Instances

No

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

infraestructura creada

crear certificado acm

AWS Certificate Manager > Certificates > 150e86c3-45d3-4c68-b4df-f331c99a7861

AWS Certificate Manager (ACM)

- List certificates
- Request certificate
- Import certificate
- AWS Private CA

150e86c3-45d3-4c68-b4df-f331c99a7861

[Delete](#)

Certificate status

Identifier
150e86c3-45d3-4c68-b4df-f331c99a7861

Status
Pending validation [Info](#)

ARN
[arn:aws:acm:us-east-1:717850616230:certificate/150e86c3-45d3-4c68-b4df-f331c99a7861](#)

Type
Amazon Issued

Domains (1) [Create records in Route 53](#) [Export to CSV](#)

Domain	Status	Renewal status	Type	CNAME name
wordpress.karura.cat	Pending validation	-	CNAME	_7da2f2a4e6110f5c8a028d2e89202e19.wordpress.karura.cat.

crear route 53 hosted zone

Public **wordpress.karura.cat** [Info](#) [Delete zone](#) [Test record](#) [Configure query logging](#) [Edit record](#)

Hosted zone details [Edit hosted zone](#)

Records (2) **DNSSEC signing** **Hosted zone tags (0)**

Records (1/2) [Info](#) [Delete record](#) [Import zone file](#) [Create record](#)

The following table lists the existing records in wordpress.karura.cat. You can't delete the SOA record or the NS record named wordpress.karura.cat.

Filter records by property or value

Record	Type	Routing	Differ...	Alias	Value/Route traffic to	TTL (s.)
<input checked="" type="checkbox"/> wordpress...	NS	Simple	-	No	ns-1744.awsdns-26.co.uk. ns-39.awsdns-04.com. ns-599.awsdns-10.net. ns-1153.awsdns-16.org.	172800
<input type="checkbox"/> wordpress...	SOA	Simple	-	No	ns-1744.awsdns-26.co.uk. a...	900

Record name
[wordpress.karura.cat](#)

Record type
NS

[Copied](#)

[ns-1744.awsdns-26.co.uk.](#)
[ns-39.awsdns-04.com.](#)
[ns-599.awsdns-10.net.](#)
[ns-1153.awsdns-16.org.](#)

Alias
No

TTL (seconds)
172800

Routing policy
Simple

Cloudflare

Type	(required)	(required)	TTL
NS	wordpress	ns-1744.awsdns-26.co.uk	Auto
	Use @ for root	E.g. ns1.example.com	

Record Attributes [Documentation](#)

emitir el certificado

Create DNS records in Amazon Route 53 (1/1)

Search domains 1 match

Validation status = Pending validation X Validation status = Failed X Is domain in Route 53? = Yes X Clear filters

Domain Validation status Is domain in Route 53

wordpress.karura.cat	Pending validation	Yes
----------------------	--------------------	-----

Cancel Create records

Certificate status

Identifier
150e86c3-45d3-4c68-b4df-f331c99a7861

Status
Issued

ARN
arn:aws:acm:us-east-1:717850616230:certificate/150e86c3-45d3-4c68-b4df-f331c99a7861

Type
Amazon Issued

Domains (1)

Create records in Route 53 Export to CSV

Domain	Status	Renewal status	Type	CNAME name
wordpress.karura.cat	Success	-	CNAME	_7da2f2a4e6110f5c8a028d2e89202e19.wordpress.karura.cat.

cree un nuevo registro para lb para mi wordpress

Public wordpress.karura.cat Info Delete zone Test record Configure query logging

Hosted zone details Edit hosted zone

Records (5) DNSSEC signing Hosted zone tags (0)

Records (1/5) Info Delete record Import zone file Create record

Automatic mode is the current search behavior optimized for best filter results. To change modes go to settings.

Filter records by property or value Type Routing p... Alias

Record ...	Type	Routin...	Differ...	Alias	Value/Route traffic to	TTL (s)
wordpress...	NS	Simple	-	No	ns-1744.awsdns-26.co.uk. ns-39.awsdns-04.com. ns-599.awsdns-10.net. ns-1153.awsdns-16.org.	172800
wordpress...	SOA	Simple	-	No	ns-1744.awsdns-26.co.uk. a...	900
_7da2f2a...	CNAME	Simple	-	No	_9c889d16a18bbd8ab4a040...	300
lb.wordpr...	CNAME	Simple	-	No	wordpress-alb-53-63366542...	300
_12a8ef1...	CNAME	Simple	-	No	_11b77e62c206926e01017a...	300

Record details Edit record

Record name
lb.wordpress.karura.cat

Record type
CNAME

Value
wordpress-alb-53-633665422.us-east-1.elb.amazonaws.com

Alias
No

TTL (seconds)
300

Routing policy
Simple

AWS Certificate Manager Certificates c6c36f57-93ff-4625-bea0-da926020a800

AWS Certificate Manager (ACM)

List certificates
Request certificate
Import certificate
AWS Private CA

c6c36f57-93ff-4625-bea0-da926020a800

Delete

Certificate status

Identifier
c6c36f57-93ff-4625-bea0-da926020a800

Status
Issued

ARN
arn:aws:acm:us-east-1:717850616230:certificate/c6c36f57-93ff-4625-bea0-da926020a800

Type
Amazon Issued

Domains (1)

Create records in Route 53 Export to CSV

Domain	Status	Renewal status	Type	CNAME name
lb.wordpress.karura.cat	Success	-	CNAME	_12a8ef12ed49cd60a8435495fbfd6bf8.lb.wordpress.karura.cat.

listo

EC2 > **Load balancers** > wordpress-alb-53

Instance Types Launch Templates Spot Requests Savings Plans Reserved Instances Dedicated Hosts Capacity Reservations	Load balancer type Application Scheme Internet-facing	Status Active Hosted zone Z35SXDOTRQ7X7K	VPC vpc-0d3444d0fcb5f3162 Availability Zones subnet-012155569296da2f4 us-east-1a (use1-aaz2) subnet-02365d02c437ae5a6 us-east-1b (use1-az4) subnet-055ff357dd5b95520 us-east-1c (use1-az6)	Load balancer IP address type IPv4 Date created April 26, 2025, 12:32 (UTC+02:00)
--	--	---	---	--

Load balancer ARN
arn:aws:elasticloadbalancing:us-east-1:717850616230:loadbalancer/app/wordpress-alb-53/9c851fc41830d568

DNS name info
wordpress-alb-53-633665422.us-east-1.elb.amazonaws.com (A Record)

Listeners and rules | Network mapping | Resource map | Security | Monitoring | Integrations | Attributes | Capacity | Tags

Listeners and rules (2) Info

A listener checks for connection requests on its configured protocol and port. Traffic received by the listener is routed according to the default action and any additional rules.

Filter listeners

	Protocol:Port	Default action	Rules	ARN	Security policy	Default SSL/TLS certificate
<input type="checkbox"/>	HTTPS:443	Forward to target group <ul style="list-style-type: none"> target: 1 (100%) Target group stickiness: Off 	1 rule	ARN	ELBSecurityPolicy-TLS13-1-2-...	lb.wordpress.karura.cat (Certifi...
<input type="checkbox"/>	HTTP:80	Redirect to HTTPS://#{host}:443/#{path}?#(query) <ul style="list-style-type: none"> Status code: HTTP_301 	1 rule	ARN	Not applicable	Not applicable

https://lb.wordpress.karura.cat

```

    This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should replace this file (located at /var/www/html/index.html) before continuing to operate your HTTP server.

    If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

    Configuration Overview

    Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is fully documented in /usr/share/doc/apache2/README.Debian.gz. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the manual if the apache2-doc package was installed on this server.
  
```