

CASO PRÁCTICO 3

Aplicación Inventario en 2 EC2 (con ALB) y Base de Datos MySQL en RDS

Para el desarrollo de esta simple arquitectura, comienzo con la creación de una **VPC** con dos subredes públicas y un internet gateway, todo generado automáticamente con el wizard.

Entonces, creo los dos **Security Group** solicitados:

- **SGEC2** con el puerto 80:

The screenshot shows the AWS Management Console interface for the Security Group **sg-0c44b9238f8de310d - SGEC2**. The console is in the **VPC** section under **Security Groups**. The **Details** tab is active, showing the following information:

Property	Value
Security group name	SGEC2
Security group ID	sg-0c44b9238f8de310d
Description	Allow HTTP
VPC ID	vpc-0f8cab77198fb7df4
Owner	658220173762
Inbound rules count	1 Permission entry
Outbound rules count	1 Permission entry

Below the details, the **Inbound rules** tab is selected, showing a single rule:

Name	Security group rule...	IP version	Type	Protocol	Port range	Source
-	sgr-07bcf33bff1a68f57	IPv4	HTTP	TCP	80	0.0.0.0/0

- **SGBBDD** con acceso desde el **SGEC2**:

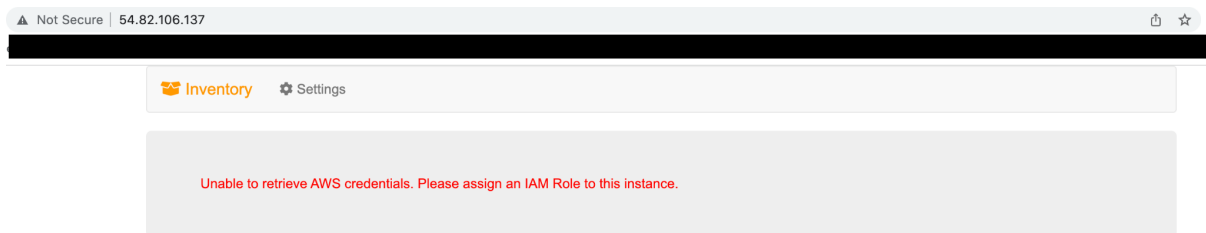
The screenshot shows the AWS Management Console interface for the Security Group **sg-0091b0f123168446c - SGBBDD**. The console is in the **VPC** section under **Security Groups**. The **Details** tab is active, showing the following information:

Property	Value
Security group name	SGBBDD
Security group ID	sg-0091b0f123168446c
Description	Allow MySQL
VPC ID	vpc-0f8cab77198fb7df4
Owner	658220173762
Inbound rules count	1 Permission entry
Outbound rules count	1 Permission entry

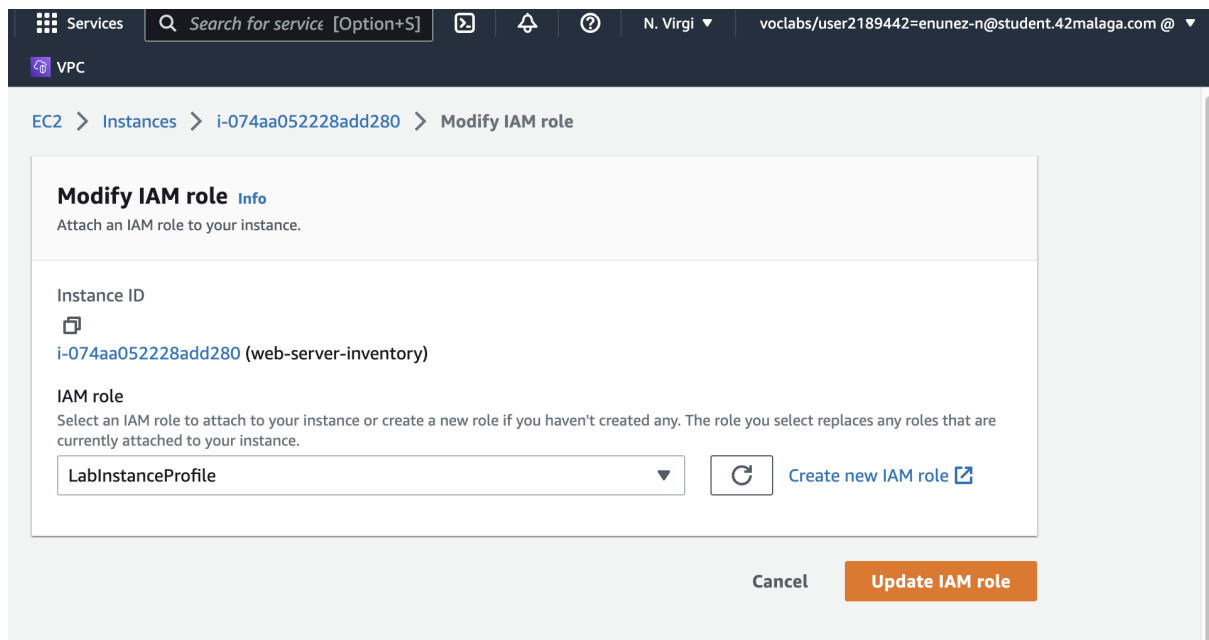
Below the details, the **Inbound rules** tab is selected, showing a single rule:

Name	Security group rule...	IP versi...	Type	Protocol	Port ra...	Source	Description
-	sgr-035e0e2245c44d3...	-	MySQL/Aurora	TCP	3306	sg-0c44b9238f8de310...	-

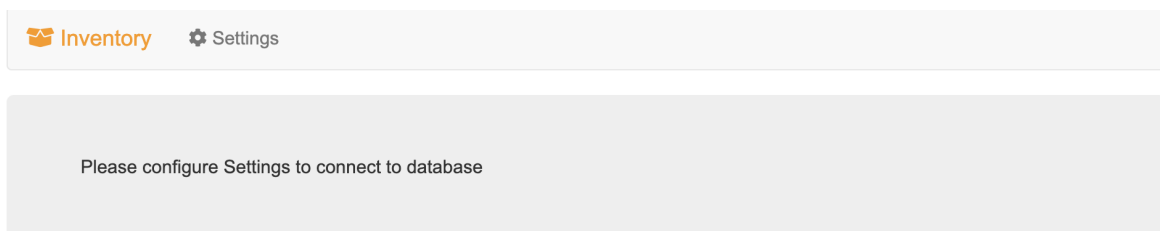
En el siguiente paso, lanzo la **máquina EC2** con el **user-data** provisto, en la subnet **~1a**. La instalación de la aplicación de inventario se realiza correctamente, ya que me permite acceder a ella, pero no ver su contenido, al no haber aplicado permisos.



Aplico los permisos, asignando el **IAM role** que se nos facilita en el entorno:



Y así nos permite el acceso:



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Creo la **base de datos** del inventario:

services, features, blogs, docs, and more [Option+S] [icons] N. Virginia ▼ voclabs/user2189442=enunez-n@student.42malaga.com @ 6582-2017...

Creating database **inventory-db** View credential details X
Your database might take a few minutes to launch.

RDS > Databases > inventory-db

inventory-db Modify Actions ▼

Summary

DB identifier inventory-db	CPU <div>7.89%</div>	Status ⌚ Backing-up	Class db.t2.micro
Role Instance	Current activity <div>0 Connections</div>	Engine MySQL Community	Region & AZ us-east-1a

Connectivity & security Monitoring Logs & events Configuration Maintenance & backups Tags

Connectivity & security

Endpoint & port

Endpoint
inventory-db.ctdejfsjyock.us-east-1.rds.amazonaws.com

Port
3306

Networking

Availability Zone
us-east-1a

VPC
case3-vpc (vpc-0f8cab77198fb7df4)

Subnet group
default-vpc-0f8cab77198fb7df4

Subnets
subnet-0e012b92762796fb2
subnet-0ff80b1a9c0717dc8

Network type
IPv4

Security

VPC security groups
SGBBDD (sg-0091b0f123168446c)
✔ Active

Publicly accessible
No

Certificate authority
rds-ca-2019

Certificate authority date
August 22, 2024, 19:08 (UTC+02:00)

Uso la dirección **endpoint** una vez se ha creado la base de datos para poder configurar la aplicación con los datos correctos y añadido un **item** al **inventario**:

Not Secure | 54.82.106.137/index.php [share] [star]

Inventory Settings

	Store	Item	Quantity
🗑️🔗	Puerto Rico	Amazon Echo	12
🗑️🔗	Paris	Amazon Dot	3
🗑️🔗	Detroit	Amazon Tap	5
🗑️🔗	Malaga	Amazon Lightbulb	20

+ Add Inventory

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Successfully created target group: WS-Inventory-TG

EC2 > Target groups

Target groups (1/1) Info

Search or filter target groups

<input checked="" type="checkbox"/>	Name	ARN	Port	Protocol	Target
<input checked="" type="checkbox"/>	WS-Inventory-TG	arn:aws:elasticloadbalancing...	80	HTTP	Insta

Target group: WS-Inventory-TG

Details Targets Monitoring Health checks Attributes Tags

Details

arn:aws:elasticloadbalancing:us-east-1:658220173762:targetgroup/WS-Inventory-TG/cadc02b341da2e67

Target type	Protocol : Port	Protocol version	VPC
Instance	HTTP: 80	HTTP1	
IP address type	Load balancer		
IPv4	None associated		

Total targets	Healthy	Unhealthy	Unused
2	0	0	2

Entonces creo el **ALB** con el **TG** creado anteriormente:

Create Load Balancer Actions

search : Inventory Add filter

Name	DNS name	State	VPC ID	Availability
Inventory	Inventory-1401888611.us-east-1.elb.amazonaws.com	Provisioning	vpc-0f8cab77198fb7df4	us-east-1b, i

Load balancer: Inventory

Description Listeners Monitoring Integrated services Tags

Basic Configuration

Name	Inventory
ARN	arn:aws:elasticloadbalancing:us-east-1:658220173762:loadbalancer/app/Inventory/5dfc1ccf8a0b7cb3
DNS name	Inventory-1401888611.us-east-1.elb.amazonaws.com (A Record)
State	Provisioning
Type	application
Scheme	internet-facing
IP address type	ipv4
VPC	vpc-0f8cab77198fb7df4
Availability Zones	subnet-0e012b92762796fb2 - us-east-1b subnet-0ff80b1a9c0717dc8 - us-east-1a
Hosted zone	Z35SXDOTRQ7X7K
Creation time	October 26, 2022 at 12:47:10 PM UTC+2

Security

Security groups	sg-0c44b9238f8de310d, SGEC2
	Allow HTTP









Replico la instancia en la otra subnet pública ~1b, y creo el **Target Group** con las dos subnets para el **Aplication Load Balancer**:

Accediendo a la **URL** del **Load Balancer**, se puede entrar a la aplicación de inventario, encargándose éste de **redirigir el tráfico** hacia una de las dos instancias del **Target Group**:

Not Secure inventory-1401888611.us-east-1.elb.amazonaws.com

Inventory

Settings

		Store	Item	Quantity
		Puerto Rico	Amazon Echo	12
		Paris	Amazon Dot	3
		Detroit	Amazon Tap	5
		Malaga	Amazon Lightbulb	20

+ Add Inventory

View site information

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