

# Sesión 8 - Conectividad

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## Paso 1. Crear la VPC

**Create VPC** [Info](#)

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances.

**VPC settings**

**Resources to create** [Info](#)  
Create only the VPC resource or the VPC and other networking resources.

VPC only    VPC and more

**Name tag - optional**  
Creates a tag with a key of 'Name' and a value that you specify.

**IPv4 CIDR block** [Info](#)  
 IPv4 CIDR manual input  
 IPAM-allocated IPv4 CIDR block

**IPv4 CIDR**  
  
CIDR block size must be between /16 and /28.

**IPv6 CIDR block** [Info](#)  
 No IPv6 CIDR block  
 IPAM-allocated IPv6 CIDR block  
 Amazon-provided IPv6 CIDR block  
 IPv6 CIDR owned by me

**Tenancy** [Info](#)

**VPC encryption control (\$)** [Info](#)  
Monitor mode provides visibility into encryption status without blocking traffic. Enforce mode prevents unencrypted traffic. [Additional charges apply](#) ↗  
 None    Monitor mode  
See which resources in your VPC are unencrypted but allow the creation of unencrypted resources.

## Paso 2. Crear subnet pública

**VPC**

**VPC ID**  
Create subnets in this VPC.

**Associated VPC CIDRs**

**IPv4 CIDRs**  
10.0.0.0/16

**Subnet settings**  
Specify the CIDR blocks and Availability Zone for the subnet.

**Subnet 1 of 1**

**Subnet name**  
Create a tag with a key of 'Name' and a value that you specify.

The name can be up to 256 characters long.

**Availability Zone** [Info](#)  
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

**IPv4 VPC CIDR block** [Info](#)  
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.

**IPv4 subnet CIDR block**  
 256 IPs

**▼ Tags - optional**

Key	Value - optional
<input type="text" value="Name"/> <input type="button" value="X"/>	<input type="text" value="public-subnet-AngelGonzalez"/> <input type="button" value="X"/> <input type="button" value="Remove"/>

You can add 49 more tags.

### Paso 3. Crear un internet Gateway y hacerle attach a la VPC

**Create internet gateway** [Info](#)  
An internet gateway is a virtual router that connects a VPC to the internet. To create a new internet gateway specify the name for the gateway below.

**Internet gateway settings**

**Name tag**  
Creates a tag with a key of 'Name' and a value that you specify.

**Tags - optional**  
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - optional
<input type="text" value="Name"/> <input type="button" value="X"/>	<input type="text" value="demo-igw-angelgonzalez"/> <input type="button" value="X"/> <input type="button" value="Remove"/>

You can add 49 more tags.

**Attach to VPC (igw-096039f9b77e4279a)** Info

**VPC**  
Attach an internet gateway to a VPC to enable the VPC to communicate with the internet. Specify the VPC to attach below.

**Available VPCs**  
Attach the internet gateway to this VPC.

X

▶ AWS Command Line Interface command

Cancel Attach internet gateway

✓ Internet gateway igw-096039f9b77e4279a successfully attached to vpc-0f96c6d6771b20358 X

## igw-096039f9b77e4279a / demo-igw-angelgonzalez Actions ▾

<b>Details</b> <small>Info</small>			
<b>Internet gateway ID</b> <span style="color: blue;">□</span> igw-096039f9b77e4279a	<b>State</b> <span style="color: green;">✓ Attached</span>	<b>VPC ID</b> <span style="color: blue;">vpc-0f96c6d6771b20358</span>   <a href="#">demo-vpc</a>	<b>Owner</b> <span style="color: blue;">□</span> 654654478122

  

<b>Tags (1)</b>	
<span style="color: blue;">Manage tags</span> <span style="color: red;">X</span> <span style="color: blue;">Search tags</span>	
Key	Value
Name	demo-igw-angelgonzalez

## Actividad 4. Configurar Route Table

**Create route table** Info

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

**Route table settings**

**Name - optional**  
Create a tag with a key of 'Name' and a value that you specify.

**VPC**  
The VPC to use for this route table.

**Tags**  
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - optional
<input type="text" value="Name"/> <span style="color: blue;">X</span>	<input type="text" value="public-rt-angelgonzalez"/> <span style="color: blue;">X</span> <span style="color: blue;">Remove</span>
<span style="color: blue;">Add new tag</span>	

You can add 49 more tags.

Cancel Create route table

## Edit routes

### Route 1

Destination  
10.0.0.0/16

Target

local

Status

Active

Propagated  
No

Route Origin  
CreateRouteTable

### Route 2

Destination  
 X

Target

Internet Gateway

Status

-

Propagated  
No

Route Origin  
CreateRoute

Remove

Add route

Cancel

Preview

Save changes

## Edit subnet associations

Change which subnets are associated with this route table.

### Available subnets (1/1)

Available subnets (1/1)					
<input type="text" value="Filter subnet associations"/> <span>X</span>					
<input checked="" type="checkbox"/>	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route Table
<input checked="" type="checkbox"/>	public-subnet-AngelGonzalez	subnet-053c8fd04b17fa601	10.0.1.0/24	-	<span>Map</span>

### Selected subnets

subnet-053c8fd04b17fa601 / public-subnet-AngelGonzalez X

Cancel

Save associations

Paso 5. Subnets privadas

<p><span style="color: green;">✓</span> You have successfully created 1 subnet: subnet-0616cd0257921e157</p> <p><b>Subnets (1)</b> <a href="#">Info</a></p> <p>Last updated less than a minute ago <a href="#">Actions</a> <a href="#">Create subnet</a></p>																
<p><input type="text"/> Find subnets by attribute or tag</p>																
<table border="1"> <thead> <tr> <th>Subnet ID : subnet-0616cd0257921e157</th> <th>X</th> <th><a href="#">Clear filters</a></th> <th>&lt; 1 &gt;</th> <th></th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>Name</td> <td>Subnet ID</td> <td>State</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td>pvs-AngelGonzalez-DBS</td> <td><a href="#">subnet-0616cd0257921e157</a></td> <td><span style="color: green;">✓ Available</span></td> <td></td> </tr> </tbody> </table>		Subnet ID : subnet-0616cd0257921e157	X	<a href="#">Clear filters</a>	< 1 >		<input type="checkbox"/>	Name	Subnet ID	State		<input type="checkbox"/>	pvs-AngelGonzalez-DBS	<a href="#">subnet-0616cd0257921e157</a>	<span style="color: green;">✓ Available</span>	
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**Create route table** [Info](#)

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

**Route table settings**

**Name - optional**  
Create a tag with a key of 'Name' and a value that you specify.

private-rt-dbs

**VPC**  
The VPC to use for this route table.

vpc-0f96c6d6771b20358 (demo-vpc)

**Tags**  
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - optional
<input type="text"/> Name	<input type="text"/> private-rt-dbs <a href="#">X</a> <a href="#">Remove</a>

[Add new tag](#)

You can add 49 more tags.

[Cancel](#) [Create route table](#)

You have successfully updated subnet associations for rtb-076a294da08ca8512 / private-rt-dbs.

X

## rtb-076a294da08ca8512 / private-rt-dbs

Actions ▾

### Details Info

Route table ID	Main	Explicit subnet associations	Edge associations
<a href="#">rtb-076a294da08ca8512</a>	<input type="checkbox"/> No	<a href="#">subnet-0616cd025792</a> 1e157 / pvs-AngelGonzalez-DBS	-
VPC	Owner ID		
vpc-0f96c6d6771b203	<input type="checkbox"/> 654654478122		
58   demo-vpc			

Routes | **Subnet associations** | Edge associations | Route propagation | Tags

### Explicit subnet associations (1)

Edit subnet associations

Find subnet association

< 1 > |

Name	▼	Subnet ID	▼	IPv4 CIDR	▼	IPv6 CIDR	▼
pvs-AngelGonzalez-DBS		<a href="#">subnet-0616cd025792</a>		10.0.2.0/24		-	

### Subnets without explicit associations (0)

Edit subnet associations

The following subnets have not been explicitly associated with any route tables and are therefore associated with the main route table:

Find subnet association

< 1 > |

Name	▼	Subnet ID	▼	IPv4 CIDR	▼	IPv6 CIDR	▼

No subnets without explicit associations

All your subnets are associated with a route table.

Paso 6. Crear 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

Name cannot be edited after creation.

#### Description Info

#### VPC Info

### Inbound rules Info

This security group has no inbound rules.

[Add rule](#)

### Outbound rules Info

#### Outbound rule 1

[Delete](#)

##### Type Info

##### Protocol Info

##### Port range Info

##### Destination type Info

##### Destination Info



##### Description - optional Info

#### Outbound rule 2

[Delete](#)

##### Type Info

##### Protocol Info

##### Port range Info

##### Destination type Info

##### Destination Info



##### Description - optional Info

 [Add rule](#)

Paso 7. lanzar EC2

▼ Network settings [Info](#)

VPC - required | [Info](#)

vpc-0f96c6d6771b20358 (demo-vpc) ▾

Subnet | [Info](#)

subnet-053c8fd04b17fa601 public-subnet-AngelGonzalez ▾ Create new subnet ↗

VPC: vpc-0f96c6d6771b20358 Owner: 654654478122  
Availability Zone: us-east-1c (use1-az4) Zone type: Availability Zone  
IP addresses available: 251 CIDR: 10.0.1.0/24

Auto-assign public IP | [Info](#)

Enable ▾

Additional charges apply when outside of free tier allowance

Firewall (security groups) | [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group  Select existing security group ▾

Common security groups | [Info](#)

Select security groups ▾ Compare security group rules

ebs-SG-test-angelgonzalez sg-023deef5d4788232e X

VPC: vpc-00f479057476a2db8

Security groups that you add or remove here will be added to or removed from all your network interfaces.

▼ Advanced network configuration

Instance summary for i-011cf67f2039ef1bf (demo-ec2-angelGonzalez) <a href="#">Info</a>		
<span> Connect</span> <span>Instance state ▾</span>		Actions ▾
Updated less than a minute ago		
<b>Instance ID</b> i-011cf67f2039ef1bf	<b>Public IPv4 address</b> 54.172.238.185   <a href="#">open address ↗</a>	<b>Private IPv4 addresses</b> 10.0.1.38
<b>IPv6 address</b> -	<b>Instance state</b> Running	<b>Public DNS</b> -
<b>Hostname type</b> IP name: ip-10-0-1-38.ec2.internal	<b>Private IP DNS name (IPv4 only)</b> ip-10-0-1-38.ec2.internal	<b>Elastic IP addresses</b> -
<b>Answer private resource DNS name</b> -	<b>Instance type</b> t3.micro	<b>AWS Compute Optimizer finding</b> User: arn:aws:iam::65465447812 2:user/students/anggonpad@gmail.com is not authorized to perform: compute-optimizer:GetEnrollmentStatus on resource: * because no id entity-based policy allows the compute-optimizer:GetEnrollmentStatus action <a href="#">Retry</a>
<b>Auto-assigned IP address</b> 54.172.238.185 [Public IP]	<b>VPC ID</b> vpc-0f96c6d6771b20358 (demo-vpc) ↗	<b>Auto Scaling Group name</b> -
<b>IAM role</b> -	<b>Subnet ID</b> subnet-053c8fd04b17fa601 (public-subnet-AngelGonzalez) ↗	<b>Managed</b> false
<b>IMDSv2</b> Required	<b>Instance ARN</b> arn:aws:ec2:us-east-1:65465447812:instance/i-011cf67f2039ef1bf	

```
[ec2-user@ip-10-0-1-38 html]$ sudo systemctl status httpd
● httpd.service - The Apache HTTP Server
  Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; preset: disabled)
  Active: active (running) since Mon 2026-02-09 00:20:23 UTC; 2min 1s ago
    Docs: man:httpd.service(8)
   Main PID: 25881 (httpd)
     Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes served/sec: 0 B/sec"
      Tasks: 177 (limit: 1067)
     Memory: 13.4M
        CPU: 160ms
       CGroup: /system.slice/httpd.service
               ├─25881 /usr/sbin/httpd -DFOREGROUND
               ├─25882 /usr/sbin/httpd -DFOREGROUND
               ├─25883 /usr/sbin/httpd -DFOREGROUND
               ├─25884 /usr/sbin/httpd -DFOREGROUND
               └─25936 /usr/sbin/httpd -DFOREGROUND

Feb 09 00:20:23 ip-10-0-1-38.ec2.internal systemd[1]: Starting httpd.service - The Apache HTTP Server...
Feb 09 00:20:23 ip-10-0-1-38.ec2.internal httpd[25881]: Server configured, listening on: port 80
Feb 09 00:20:23 ip-10-0-1-38.ec2.internal systemd[1]: Started httpd.service - The Apache HTTP Server.
[ec2-user@ip-10-0-1-38 html]$ [0] 0:sudo*
```

