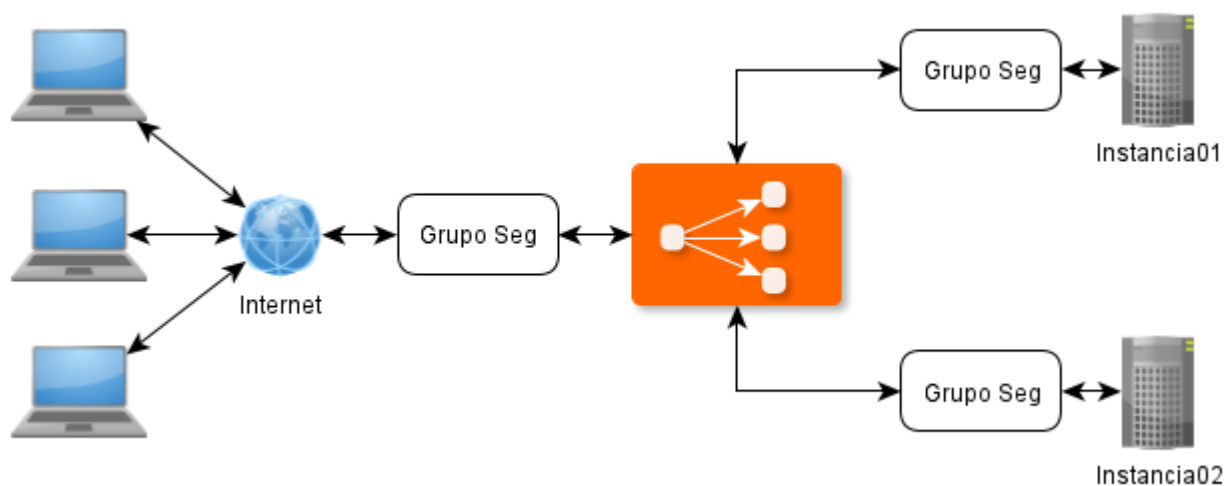




Infraestructura I

Cómo armar un ambiente más complejo en AWS

El objetivo de la clase es que conozcas cuáles son los usos reales que se van a encontrar en las empresas donde se desarrollan. Además, aprenderás buenas prácticas al momento de elegir una arquitectura para tu aplicación y sacarle provecho a lo aprendido en Infraestructura I. El modelo a diseñar es el siguiente:



Free tier eligible

Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm)

Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

☒ 64-bit (x86)
☐ 64-bit (Arm)

Instance: i-0630dbd3d89230282 (Instancia01)

Details Security Networking Storage Status checks Monitoring Tags

▼ Instance summary Info

Instance ID i-0630dbd3d89230282 (Instancia01)	Public IPv4 address 3.221.170.223 open address	Private IPv4 addresses 172.31.2.9
Instance state Running	Public IPv4 DNS ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS ip-172-31-2-9.ec2.internal
Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-4cef8131

Vamos a armar el ambiente en 2 clases.

La primera Clase vamos a realizar:

1. Creación de las 2 instancias en la VPC.
2. Deployar el código del trabajo realizado en Front End II.

En la Segunda clase vamos realizar:

3. Creación del load balancer.
4. Configuración del tráfico y verificación del funcionamiento.

Empecemos.

1. Creación de las instancias EC2 en la VPC.

1.a. Acceso a la consola de gestión AWS.

Una vez logueados en la consola de Amazon Educate, seleccionamos la opción **AWS Account**, aparecerá listada la materia y hacemos clic en **Go to Classroom**.



Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm)

Free tier eligible

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

64-bit (x86)

64-bit (Arm)

Instance: i-0630dbd3d89230282 (Instancia01)

Details

Security

Networking

Storage

Status checks

Monitoring

Tags

▼ Instance summary Info

Instance ID

i-0630dbd3d89230282 (Instancia01)

Instance state

Running

Instance type

t2.micro

Public IPv4 address

3.221.170.223 | open address

Public IPv4 DNS

ec2-3-221-170-223.compute-1.amazonaws.com | open address

Elastic IP addresses

-

Private IPv4 addresses

172.31.2.9

Private IPv4 DNS

ip-172-31-2-9.ec2.internal

VPC ID

vpc-4cef8131

My Classrooms

Portfolio

Career Pathways

Badges

Jobs

AWS Account

Logout

Consecutive Days: 1

Pathways Completed: 0

Badges Earned: 0

Preferred Language: English

ing over 18 million cloud jobs worldwide
ate introduces you to lucrative cloud-
learning pathways, each with content
ivities and labs, opportunities to earn
of Completion, and access to the AWS
ses at your school or through online
re pathway to your dream job in the

If you missed out the "Optimizing your AWS Educate Profile to Help You Find a Cloud Career" webinar and Q&A session, watch it [here](#)!

Suggested Jobs

Entry Level Software Developer

Smoothstack, Inc.

more about this opportunity

See More


Seleccionamos la opción **AWS Educate Starter Account**.

AWS Educate Starter Account

Your cloud journey has only just begun. Use your AWS Educate Starter Account to access the AWS Console and resources, and start building in the cloud!



AWS Educate Starter Account

 **Ubuntu Server 20.04 LTS (HVM), SSD Volume Type** - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm) Select

Free tier eligible Root device type: ebs Virtualization type: hvm ENA Enabled: Yes








Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

☒ 64-bit (x86)
☐ 64-bit (Arm)

Instance: i-0630dbd3d89230282 (Instancia01)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

▼ Instance summary [Info](#)

Instance ID  i-0630dbd3d89230282 (Instancia01)	Public IPv4 address  3.221.170.223 open address	Private IPv4 addresses  172.31.2.9
Instance state  Running	Public IPv4 DNS  ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS  ip-172-31-2-9.ec2.internal
Instance type t2.micro	Elastic IP addresses -	VPC ID  vpc-4cef8131

Presionamos el botón de acceso a **AWS Console** y verificamos que el browser no bloquee ventanas emergentes en este sitio.

Vocareum My Classes Help introaingenieria@gmail.com




Welcome to your AWS Educate Account


AWS Educate provides you with access to a wide variety of AWS Services for you to get your hands on and build on AWS! To get started, click on the AWS Console button to log in to your AWS console.

Please read the FAQ below to help you get started on your Starter Account.

- What are the list of services supported?
- What regions are supported with Starter Accounts or Classroom Accounts?
- I can't start any resources. What happened?
- Can I create users within my Starter or Classroom Account for others to access?
- Can I create my own IAM policy within Starter Account or Classroom?

Your AWS Account Status

	Active full access [introaingenieria@gmail.com]
	\$30 remaining credits (estimated)
	2:59 session time

[Account Details](#) [AWS Console](#) 

Please use AWS Educate Account responsibly. Remember to shut down your instances when not in use to make the best use of your credits. And, don't forget to logout once you are done with your work!

Nos encontramos con la consola de gestión de la plataforma AWS.

Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm) Select

Free tier eligible

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Instance: i-0630dbd3d89230282 (Instancia01)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

▼ Instance summary [Info](#)

Instance ID i-0630dbd3d89230282 (Instancia01)	Public IPv4 address 3.221.170.223 open address	Private IPv4 addresses 172.31.2.9
Instance state Running	Public IPv4 DNS ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS ip-172-31-2-9.ec2.internal
Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-4cef8131

← → ↺ 🏠 <https://console.aws.amazon.com/console/home?region=us-east-1#> 90% *** 🌟

aws Services ▾ Resource Groups ▾ 🔍

AWS Management Console

AWS services

Find Services
You can enter names, keywords or acronyms.

🔍 Example: Relational Database Service, database, RDS

▶ All services

Stay connected to your AWS resources on-the-go

📱 Download the AWS Console Mobile App to your iOS or Android mobile device. [Learn more](#)

Build a solution
Get started with simple wizards and automated workflows.

Launch a virtual machine
With EC2
2-3 minutes

Build a web app
With Elastic Beanstalk
6 minutes

Build using virtual servers
With Lightsail
1-2 minutes

Explore AWS

Amazon Redshift
Fast, simple, cost-effective data warehouse that can extend queries to your data lake. [Learn more](#)

Run Serverless Containers with AWS Fargate
AWS Fargate runs and scales your containers without having to manage servers or clusters. [Learn more](#)

En la consola de gestión de la plataforma AWS hacemos clic en **EC2**.

Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm) Select

Free tier eligible

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Instance: i-0630dbd3d89230282 (Instancia01)

Details Security Networking Storage Status checks Monitoring Tags

▼ Instance summary Info

<p>Instance ID</p> <p>i-0630dbd3d89230282 (Instancia01)</p> <p>Instance state</p> <p>Running</p> <p>Instance type</p> <p>t2.micro</p>	<p>Public IPv4 address</p> <p>3.221.170.223 open address</p> <p>Public IPv4 DNS</p> <p>ec2-3-221-170-223.compute-1.amazonaws.com open address</p> <p>Elastic IP addresses</p> <p>-</p>	<p>Private IPv4 addresses</p> <p>172.31.2.9</p> <p>Private IPv4 DNS</p> <p>ip-172-31-2-9.ec2.internal</p> <p>VPC ID</p> <p>vpc-4cef8131</p>
---	--	---

AWS Management Console

AWS services

► All services

Build a solution

Get started with simple wizards and automated workflows.

Launch a virtual machine

With EC2
2-3 minutes



Build a web app

With Elastic Beanstalk
6 minutes



Build using virtual servers

With Lightsail
1-2 minutes



1.b. Crear una instancia en EC2.

Vale aclarar que este paso lo vamos a repetir para crear también la segunda instancia.

Nos posicionamos en la parte superior derecha de la pantalla y hacemos clic en el botón **Launch instances**.



 **Ubuntu Server 20.04 LTS (HVM), SSD Volume Type** - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm)

Free tier eligible

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

☒ 64-bit (x86)
☐ 64-bit (Arm)

Instance: i-0630dbd3d89230282 (Instancia01)

Details Security Networking Storage Status checks Monitoring Tags


▼ Instance summary Info

Instance ID i-0630dbd3d89230282 (Instancia01)	Public IPv4 address 3.221.170.223 open address	Private IPv4 addresses 172.31.2.9
Instance state Running	Public IPv4 DNS ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS ip-172-31-2-9.ec2.internal
Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-4cef8131

Launch instances

Elgimos **Ubuntu Server 20.04 LTS**.

Seleccionamos el modelo de máquina **Family T2.micro (capa free)**.

 **Ubuntu Server 20.04 LTS (HVM), SSD Volume Type** - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm) Select








Free tier eligible Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>). 64-bit (x86) 64-bit (Arm)

Instance: i-0630dbd3d89230282 (Instancia01)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

▼ Instance summary [Info](#)


Instance ID  i-0630dbd3d89230282 (Instancia01)	Public IPv4 address  3.221.170.223 open address	Private IPv4 addresses  172.31.2.9
Instance state  Running	Public IPv4 DNS  ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS  ip-172-31-2-9.ec2.internal
Instance type t2.micro	Elastic IP addresses -	VPC ID  vpc-4cef8131

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are v for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: **All instance families** **Current generation** [Show/Hide Columns](#)

Currently selected: t2.micro (- ECUs, 1 vCPUs, 2.5 GHz, -, 1 GiB memory, EBS only)

	Family	Type	vCPUs 
<input type="checkbox"/>	t2	t2.nano	1
<input checked="" type="checkbox"/>	t2	t2.micro Free tier eligible	1
<input type="checkbox"/>	t2	t2.small	1
<input type="checkbox"/>	t2	t2.medium	2

Hacemos clic en **Next**.

En la interfaz, el Step 3 lo dejamos tal cual está y apretamos **Next**.

En el Step 4, dejamos los discos por defecto de 8 GB, volvemos a presionar **Next**.

En el Step 5, hacemos lo mismo.



Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm) Select

Free tier eligible

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Instance: i-0630dbd3d89230282 (Instancia01)

Details Security Networking Storage Status checks Monitoring Tags

▼ Instance summary Info

Instance ID i-0630dbd3d89230282 (Instancia01)	Public IPv4 address 3.221.170.223 open address	Private IPv4 addresses 172.31.2.9
Instance state Running	Public IPv4 DNS ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS ip-172-31-2-9.ec2.internal
Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-4cef8131

COPIAMOS A QUE GRUPO DE SEGURIDAD PERTENECE

sg-0bcec8812b56facd1

En el Step 6 vamos a configurar, por ahora, un grupo de seguridad para el acceso a la instancia.

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☒ Create a new security group

☐ Select an existing security group

Security group name: grupo-seguridad-acceso-instancias

Description: acceder a las instancias EC2

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Anywhere 0.0.0.0/0 ::0	e.g. SSH for Admin Desktop
HTTP	TCP	80	Anywhere 0.0.0.0/0 ::0	e.g. SSH for Admin Desktop
HTTPS	TCP	443	Anywhere 0.0.0.0/0 ::0	e.g. SSH for Admin Desktop

Add Rule

Lo importante es darle un nombre y una descripción que nos ayude a identificarlo y dar acceso a los protocolos:



Free tier eligible

Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm)

Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

64-bit (x86)
64-bit (Arm)

Instance: i-0630dbd3d89230282 (Instancia01)

Details Security Networking Storage Status checks Monitoring Tags

▼ Instance summary Info

Instance ID i-0630dbd3d89230282 (Instancia01)	Public IPv4 address 3.221.170.223 open address	Private IPv4 addresses 172.31.2.9
Instance state Running	Public IPv4 DNS ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS ip-172-31-2-9.ec2.internal
Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-4cef8131

☐ SSH TCP PUERTO 22 ANYWHERE

☐ HTTP TCP PUERTO 80 ANYWHERE

Hacemos clic en **Review and Launch**.

Corroboramos la configuración de la instancia y hacemos clic en **Launch instances**.

Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Create a new key pair

Key pair name

infra1

Download Key Pair

You have to download the **private key file** (*.pem file) before you can continue. **Store it in a secure and accessible location.** You will not be able to download the file again after it's created.

Cancel Launch Instances

Creamos un nuevo key pair, si no tenemos, y descargamos el archivo .pem.

Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm) Select

Free tier eligible

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Instance: i-0630dbd3d89230282 (Instancia01)

Details	Security	Networking	Storage	Status checks	Monitoring	Tags			
<p>▼ Instance summary Info</p> <table border="1"> <tr> <td> <p>Instance ID</p> <p>i-0630dbd3d89230282 (Instancia01)</p> <p>Instance state</p> <p>Running</p> <p>Instance type</p> <p>t2.micro</p> </td> <td> <p>Public IPv4 address</p> <p>3.221.170.223 open address</p> <p>Public IPv4 DNS</p> <p>ec2-3-221-170-223.compute-1.amazonaws.com open address</p> <p>Elastic IP addresses</p> <p>-</p> </td> <td> <p>Private IPv4 addresses</p> <p>172.31.2.9</p> <p>Private IPv4 DNS</p> <p>ip-172-31-2-9.ec2.internal</p> <p>VPC ID</p> <p>vpc-4cef8131</p> </td> </tr> </table>							<p>Instance ID</p> <p>i-0630dbd3d89230282 (Instancia01)</p> <p>Instance state</p> <p>Running</p> <p>Instance type</p> <p>t2.micro</p>	<p>Public IPv4 address</p> <p>3.221.170.223 open address</p> <p>Public IPv4 DNS</p> <p>ec2-3-221-170-223.compute-1.amazonaws.com open address</p> <p>Elastic IP addresses</p> <p>-</p>	<p>Private IPv4 addresses</p> <p>172.31.2.9</p> <p>Private IPv4 DNS</p> <p>ip-172-31-2-9.ec2.internal</p> <p>VPC ID</p> <p>vpc-4cef8131</p>
<p>Instance ID</p> <p>i-0630dbd3d89230282 (Instancia01)</p> <p>Instance state</p> <p>Running</p> <p>Instance type</p> <p>t2.micro</p>	<p>Public IPv4 address</p> <p>3.221.170.223 open address</p> <p>Public IPv4 DNS</p> <p>ec2-3-221-170-223.compute-1.amazonaws.com open address</p> <p>Elastic IP addresses</p> <p>-</p>	<p>Private IPv4 addresses</p> <p>172.31.2.9</p> <p>Private IPv4 DNS</p> <p>ip-172-31-2-9.ec2.internal</p> <p>VPC ID</p> <p>vpc-4cef8131</p>							

1.c. Repetimos los pasos para crear la segunda instancia.

Instance: i-067007f142712d7e1 (Instancia02)

Details	Security	Networking	Storage	Status checks	Monitoring	Tags			
<p>▼ Instance summary Info</p> <table border="1"> <tr> <td> <p>Instance ID</p> <p>i-067007f142712d7e1 (Instancia02)</p> <p>Instance state</p> <p>Running</p> <p>Instance type</p> <p>t2.micro</p> </td> <td> <p>Public IPv4 address</p> <p>34.237.124.200 open address</p> <p>Public IPv4 DNS</p> <p>ec2-34-237-124-200.compute-1.amazonaws.com open address</p> <p>Elastic IP addresses</p> <p>-</p> </td> <td> <p>Private IPv4 addresses</p> <p>172.31.7.128</p> <p>Private IPv4 DNS</p> <p>ip-172-31-7-128.ec2.internal</p> <p>VPC ID</p> <p>vpc-4cef8131</p> </td> </tr> </table>							<p>Instance ID</p> <p>i-067007f142712d7e1 (Instancia02)</p> <p>Instance state</p> <p>Running</p> <p>Instance type</p> <p>t2.micro</p>	<p>Public IPv4 address</p> <p>34.237.124.200 open address</p> <p>Public IPv4 DNS</p> <p>ec2-34-237-124-200.compute-1.amazonaws.com open address</p> <p>Elastic IP addresses</p> <p>-</p>	<p>Private IPv4 addresses</p> <p>172.31.7.128</p> <p>Private IPv4 DNS</p> <p>ip-172-31-7-128.ec2.internal</p> <p>VPC ID</p> <p>vpc-4cef8131</p>
<p>Instance ID</p> <p>i-067007f142712d7e1 (Instancia02)</p> <p>Instance state</p> <p>Running</p> <p>Instance type</p> <p>t2.micro</p>	<p>Public IPv4 address</p> <p>34.237.124.200 open address</p> <p>Public IPv4 DNS</p> <p>ec2-34-237-124-200.compute-1.amazonaws.com open address</p> <p>Elastic IP addresses</p> <p>-</p>	<p>Private IPv4 addresses</p> <p>172.31.7.128</p> <p>Private IPv4 DNS</p> <p>ip-172-31-7-128.ec2.internal</p> <p>VPC ID</p> <p>vpc-4cef8131</p>							

2. Deployar el código del trabajo realizado en Front End II.

Para este apartado vamos a necesitar una consola o terminal BASH para comunicarnos vía SSH. En la actualidad, hay muchos productos disponibles y depende del sistema operativo que estemos utilizando. Por el momento, dejamos a tu criterio cuál te parece más cómodo y agradable a la vista. En este ejemplo, utilizamos windows 10 con CMDER. En caso de no tenerlo, se puede descargar de <https://cmder.net> —recomendamos bajar la versión full que es totalmente portable—.

Copiamos el archivo de claves .pem en la carpeta raíz del cmdr, solo por comodidad del ejemplo.






















 **Ubuntu Server 20.04 LTS (HVM), SSD Volume Type** - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm) Select

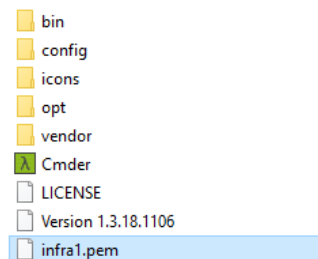
Free tier eligible

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

☒ 64-bit (x86)
 ☐ 64-bit (Arm)

Instance: i-0630dbd3d89230282 (Instancia01)

Details	Security	Networking	Storage	Status checks	Monitoring	Tags			
<p>▼ Instance summary Info</p> <table border="1"> <tr> <td> <p>Instance ID</p> <p> i-0630dbd3d89230282 (Instancia01)</p> <p>Instance state</p> <p> Running</p> <p>Instance type</p> <p>t2.micro</p> </td> <td> <p>Public IPv4 address</p> <p> 3.221.170.223 open address</p> <p>Public IPv4 DNS</p> <p> ec2-3-221-170-223.compute-1.amazonaws.com open address</p> <p>Elastic IP addresses</p> <p>-</p> </td> <td> <p>Private IPv4 addresses</p> <p> 172.31.2.9</p> <p>Private IPv4 DNS</p> <p> ip-172-31-2-9.ec2.internal</p> <p>VPC ID</p> <p> vpc-4cef8131</p> </td> </tr> </table>							<p>Instance ID</p> <p> i-0630dbd3d89230282 (Instancia01)</p> <p>Instance state</p> <p> Running</p> <p>Instance type</p> <p>t2.micro</p>	<p>Public IPv4 address</p> <p> 3.221.170.223 open address</p> <p>Public IPv4 DNS</p> <p> ec2-3-221-170-223.compute-1.amazonaws.com open address</p> <p>Elastic IP addresses</p> <p>-</p>	<p>Private IPv4 addresses</p> <p> 172.31.2.9</p> <p>Private IPv4 DNS</p> <p> ip-172-31-2-9.ec2.internal</p> <p>VPC ID</p> <p> vpc-4cef8131</p>
<p>Instance ID</p> <p> i-0630dbd3d89230282 (Instancia01)</p> <p>Instance state</p> <p> Running</p> <p>Instance type</p> <p>t2.micro</p>	<p>Public IPv4 address</p> <p> 3.221.170.223 open address</p> <p>Public IPv4 DNS</p> <p> ec2-3-221-170-223.compute-1.amazonaws.com open address</p> <p>Elastic IP addresses</p> <p>-</p>	<p>Private IPv4 addresses</p> <p> 172.31.2.9</p> <p>Private IPv4 DNS</p> <p> ip-172-31-2-9.ec2.internal</p> <p>VPC ID</p> <p> vpc-4cef8131</p>							



Abrir la carpeta en Bash donde esta la clave

Abrimos la consola. En la parte inferior derecha abrimos un bash como administrador.



Vamos a buscar la IP de la "Instancia01" que está online.

`chmod 400 ubuntukey.pem`

```
david@Escritorio ~/Downloads/cmdr
λ ssh -i infra1.pem ubuntu@3.221.170.223|
```

`>> ssh -i infra1.pem ubuntu@3.221.170.223`



Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm) Select

Free tier eligible Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>). 64-bit (x86) 64-bit (Arm)

Instance: i-0630dbd3d89230282 (Instancia01)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

▼ Instance summary [Info](#)

Instance ID i-0630dbd3d89230282 (Instancia01)	Public IPv4 address 3.221.170.223 open address	Private IPv4 addresses 172.31.2.9
Instance state Running	Public IPv4 DNS ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS ip-172-31-2-9.ec2.internal
Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-4cef8131

```

Cmder
* Documentation: https://help.ubuntu.com
* Management:   https://landscape.canonical.com
* Support:      https://ubuntu.com/advantage

System information as of Sat Jul 24 00:12:26 UTC 2021

System load:  0.0      Processes:            100
Usage of /:   16.4% of 7.69GB   Users logged in:     0
Memory usage: 23%      IPv4 address for eth0: 172.31.2.9
Swap usage:   0%

1 update can be applied immediately.
To see these additional updates run: apt list --upgradable

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-2-9:~$
  
```

Una vez dentro, tenemos que instalar un servidor Apache para deployar nuestro código. Con este objetivo, ponemos el siguiente comando:


```

>> sudo apt update

>> sudo apt upgrade -y

>> sudo apt install apache2 -y
  
```





Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm)
Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Free tier eligible

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

☒ 64-bit (x86)
☐ 64-bit (Arm)

Instance: i-0630dbd3d89230282 (Instancia01)

Details

Security

Networking

Storage

Status checks


Monitoring

Tags


▼ Instance summary

Info

Instance ID

 i-0630dbd3d89230282 (Instancia01)


Instance state

 **Running**


Instance type

t2.micro

Public IPv4 address

 3.221.170.223 | [open address](#)


Public IPv4 DNS

 ec2-3-221-170-223.compute-1.amazonaws.com | [open address](#)


Elastic IP addresses

-


Private IPv4 addresses

 172.31.2.9

Private IPv4 DNS

 ip-172-31-2-9.ec2.internal

VPC ID

 vpc-4cef8131

Comprobamos que el servicio esté andando. Ingresamos a un explorador y colocamos la IP de nuestra instancia y nos debe contestar: **Apache2 recientemente instalado.**



Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm) Select
 Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).
 Free tier eligible Root device type: ebs Virtualization type: hvm ENA Enabled: Yes ☒ 64-bit (x86) ☐ 64-bit (Arm)

Instance: i-0630dbd3d89230282 (Instancia01)

Details	Security	Networking	Storage	Status checks	Monitoring	Tags									
<p>▼ Instance summary Info</p> <table border="1"> <tr> <td> Instance ID i-0630dbd3d89230282 (Instancia01) </td> <td> Public IPv4 address 3.221.170.223 open address </td> <td> Private IPv4 addresses 172.31.2.9 </td> </tr> <tr> <td> Instance state Running </td> <td> Public IPv4 DNS ec2-3-221-170-223.compute-1.amazonaws.com open address </td> <td> Private IPv4 DNS ip-172-31-2-9.ec2.internal </td> </tr> <tr> <td> Instance type t2.micro </td> <td> Elastic IP addresses - </td> <td> VPC ID vpc-4cef8131 </td> </tr> </table>							Instance ID i-0630dbd3d89230282 (Instancia01)	Public IPv4 address 3.221.170.223 open address	Private IPv4 addresses 172.31.2.9	Instance state Running	Public IPv4 DNS ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS ip-172-31-2-9.ec2.internal	Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-4cef8131
Instance ID i-0630dbd3d89230282 (Instancia01)	Public IPv4 address 3.221.170.223 open address	Private IPv4 addresses 172.31.2.9													
Instance state Running	Public IPv4 DNS ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS ip-172-31-2-9.ec2.internal													
Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-4cef8131													

Apache2 Ubuntu Default Page

ubuntu

It works!

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.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```

/etc/apache2/
|-- apache2.conf
|   |-- ports.conf
|-- mods-enabled
|   |-- *.load
|   |-- *.conf
|-- conf-enabled
|   |-- *.conf
|-- sites-enabled
|   |-- *.conf

```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective `*-available/` counterparts. These should be managed by using our helpers `a2enmod`, `a2dismod`, `a2ensite`, `a2dissite`, and `a2enconf`, `a2disconf`. See their respective man pages for detailed information.
- The binary is called `apache2`. Due to the use of environment variables, in the default configuration, `apache2` needs to be started/stopped with `/etc/init.d/apache2` or `apache2ctl`. Calling `/usr/bin/apache2` directly will not work with the default configuration.

Luego, clonamos el repositorio del proyecto Front End II. En este caso, lo tenemos en el repositorio público de Github.

```
>> sudo git clone https://github.com/davidroco99/clase25.git
```

```
>> sudo chmod 777 -R clase25/
```

```
>> sudo cp -rf clase25/* /var/www/html/
```

Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm) Select

Free tier eligible

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).
☒ 64-bit (x86)
☐ 64-bit (Arm)

Instance: i-0630dbd3d89230282 (Instancia01)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

▼ Instance summary [Info](#)

Instance ID i-0630dbd3d89230282 (Instancia01)	Public IPv4 address 3.221.170.223 open address	Private IPv4 addresses 172.31.2.9
Instance state Running	Public IPv4 DNS ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS ip-172-31-2-9.ec2.internal
Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-4cef8131

Ingresamos nuevamente a la instancia a través del navegador web (repetimos este procedimiento para la segunda instancia en EC2).



Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm)

Select

Free tier eligible

Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

- ☒ 64-bit (x86)
☐ 64-bit (Arm)

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Instance: i-0630dbd3d89230282 (Instancia01)

Details Security Networking Storage Status checks Monitoring Tags

▼ Instance summary Info

Instance ID

i-0630dbd3d89230282 (Instancia01)

Instance state

Running

Instance type

t2.micro

Public IPv4 address

3.221.170.223 | [open address](#)

Public IPv4 DNS

ec2-3-221-170-223.compute-1.amazonaws.com | [open address](#)

Elastic IP addresses

—

Private IPv4 addresses

172.31.2.9

Private IPv4 DNS

ip-172-31-2-9.ec2.internal

VPC ID

vpc-4cef8131

3.221.170.223/login.html

ToDo
Ingresar

Email:

Contraseña:

Ingresar

[¿No tiene una cuenta? Regístrese aquí](#)



Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm) [Select](#)

Free tier eligible

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Instance: i-0630dbd3d89230282 (Instancia01)

[Details](#) [Security](#) [Networking](#) [Storage](#) [Status checks](#) [Monitoring](#) [Tags](#)

▼ Instance summary [Info](#)

Instance ID i-0630dbd3d89230282 (Instancia01)	Public IPv4 address 3.221.170.223 open address	Private IPv4 addresses 172.31.2.9
Instance state Running	Public IPv4 DNS ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS ip-172-31-2-9.ec2.internal
Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-4cef8131

No es seguro | mibalanceador-866200664.us-east-1.elb.amazonaws.com/login.html

YouTube Maps Gmail Playground Digital... (3) Cómo balancear...

ToDo

Ingresar

Email:

Contraseña:

[Ingresar](#)

[¿No tiene una cuenta? Regístrese aquí](#)

¡Felicitaciones! Ya has llegado hasta acá, en la próxima clase vamos a configurar el load balancer.



Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-09e67e426f25ce0d7 (64-bit x86) / ami-00d1ab6b335f217cf (64-bit Arm)
Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select
☒ 64-bit (x86)
☐ 64-bit (Arm)

Instance: i-0630dbd3d89230282 (Instancia01)

Details

Security

Networking

Storage

Status checks

Monitoring

Tags

▼ Instance summary Info

Instance ID i-0630dbd3d89230282 (Instancia01)	Public IPv4 address 3.221.170.223 open address	Private IPv4 addresses 172.31.2.9
Instance state Running	Public IPv4 DNS ec2-3-221-170-223.compute-1.amazonaws.com open address	Private IPv4 DNS ip-172-31-2-9.ec2.internal
Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-4cef8131

Actividades a realizar

1. Intentar ingresar directamente a cada instancia constatar que está corriendo nuestra aplicación. Veremos que para ingresar tenemos que cambiar nuestra url.