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Facultad de Ingeniería
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Tecnologías de Virtualización y Data Centers
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CREACIÓN DE VM EN AMAZON AWS

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Guatemala, 23 de mayo del 2024

CREACIÓN DE LA CUENTA DE AWS:

Free Tier offers

All AWS accounts can explore 3 different types of free offers, depending on the product used.



Always free
Never expires



12 months free
Start from initial sign-up date



Trials
Start from service activation date

Sign up for AWS

Contact Information

How do you plan to use AWS?

- ☒ Business - for your work, school, or organization
- ☐ Personal - for your own projects

Who should we contact about this account?

Full Name

Juan Manuel Barillas Garcia

Organization name

Universidad Rafael Landivar

Country code Phone Number

 +502

52733524

Country or Region

Guatemala

Address line 1

18 ave 13-00

Address line 2

Apartment, suite, unit, building, floor, etc.

City

Guatemala

State, Province, or Region

Guatemala

Postal Code

010157

☒ I have read and agree to the terms of the [AWS Customer Agreement](#).



Congratulations !

Thank you for signing up with AWS.

We are activating your account, which should take a few minutes. You will receive an email when this is complete.

Go to the AWS Management Console

[Sign up for another account](#) or [Contact Sales](#)

CREACIÓN DE MÁQUINA VIRTUAL:

Sign in

☒ **Root user**

Account owner that performs tasks requiring unrestricted access. [Learn more](#)

☐ **IAM user**

User within an account that performs daily tasks. [Learn more](#)

Root user email address

juan.barillas@redesdecomunicacion.net

Next

By continuing, you agree to the [AWS Customer Agreement](#) or other agreement for AWS services, and the [Privacy Notice](#). This site uses essential cookies. See our [Cookie Notice](#) for more information.

————— New to AWS? —————

Create a new AWS account

aws

Services

Search

[Alt+S]

Ohio

juanbarillas

EC2 > Instances > Launch an instance

Launch an instance

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags

Name

VM-Ubuntu-1

Add additional tags

Application and OS Images (Amazon Machine Image)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux

macOS

Ubuntu

Windows

Red Hat

SUSE

Browse more AMIs

Amazon Machine Image (AMI)

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type

ami-09040d770ffe2224f (64-bit (x86)) / ami-0acb327475c6fd498 (64-bit (Arm))

Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description

Canonical, Ubuntu, 24.04 LTS, amd64 noble image build on 2024-04-23

Summary

Number of instances

1

Software Image (AMI)

Canonical, Ubuntu, 24.04 LTS, ...read more

ami-09040d770ffe2224f

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel

Launch instance

Review commands

Instance type

Info | Get advice

Instance type

t2.micro

Family: t2 1 vCPU 1 GiB Memory Current generation: true

On-Demand Linux base pricing: 0.0116 USD per Hour

On-Demand SUSE base pricing: 0.0116 USD per Hour

On-Demand Windows base pricing: 0.0162 USD per Hour

On-Demand RHEL base pricing: 0.0716 USD per Hour

Free tier eligible

All generations

Compare instance types

Additional costs apply for AMIs with pre-installed software

▼ Network settings [Info](#)

[Edit](#)

Network [Info](#)

vpc-04b3b764448996e40

Subnet [Info](#)

No preference (Default subnet in any availability zone)

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


We'll create a new security group called **'launch-wizard-1'** with the following rules:

☒ Allow SSH traffic from
Helps you connect to your instance

Anywhere
0.0.0.0/0

☒ Allow HTTPS traffic from the internet
To set up an endpoint, for example when creating a web server

☒ Allow HTTP traffic from the internet
To set up an endpoint, for example when creating a web server


 Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.



▼ **Configure storage** [Info](#)

[Advanced](#)


1x GiB ▼ Root volume (Not encrypted)

 Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage



Add new volume

The selected AMI contains more instance store volumes than the instance allows. Only the first 0 instance store volumes from the AMI will be accessible from the instance

 Click refresh to view backup information



The tags that you assign determine whether the instance will be backed up by any Data Lifecycle Manager policies.

0 x File systems

[Edit](#)

▼ Summary

Number of instances [Info](#)

1

Software Image (AMI)

Canonical, Ubuntu, 24.04 LTS, ...[read more](#)
ami-09040d770ffe2224f

Virtual server type (instance type)



t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 20 GiB

 **Free tier:** In your first year includes  750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel

Launch instance

[Review commands](#)

[EC2](#) > [Instances](#) > Launch an instance

✓ **Success**

Successfully initiated launch of instance ([i-031db0aff67920add](#))

▼ **Launch log**

Initializing requests	✓ Succeeded
Creating security groups	✓ Succeeded
Creating security group rules	✓ Succeeded
Launch initiation	✓ Succeeded

The screenshot shows the AWS Management Console interface. On the left is a navigation sidebar with links to EC2 Dashboard, EC2 Global View, Events, and a dropdown for Instances. The main content area is titled 'Instances (1)' and includes a search bar, a table of instances, and a 'Launch instances' button. The table contains one instance: VM-Ubuntu-1 (i-031db0aff67920add), which is in the 'Running' state. The instance type is 't2.micro' and the status check is 'Initializing'.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
VM-Ubuntu-1	i-031db0aff67920add	Running	t2.micro	Initializing	View alarms +	us-east-

CONECTANDO A LA MÁQUINA VIRTUAL SERVIDOR LINUX-UBUNTU:

aws

Services

Search

[Alt+S]

Ohio

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EC2 > Instances > i-031db0aff67920add > Connect to instance

Connect to instance

Info

Connect to your instance i-031db0aff67920add (VM-Ubuntu-1) using any of these options

EC2 Instance Connect

Session Manager

SSH client

EC2 serial console

Port 22 (SSH) is open to all IP addresses

Port 22 (SSH) is currently open to all IP addresses, indicated by 0.0.0.0/0 in the inbound rule in [your security group](#). For increased security, consider restricting access to only the EC2 Instance Connect service IP addresses for your Region: 3.16.146.0/29. [Learn more](#).

Instance ID

i-031db0aff67920add (VM-Ubuntu-1)

Connection Type

☒ Connect using EC2 Instance Connect

Connect using the EC2 Instance Connect browser-based client, with a public IPv4 address.

☐ Connect using EC2 Instance Connect Endpoint

Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

Public IP address

52.15.195.86

Username

Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ubuntu.

ubuntu

X

Note:

In most cases, the default username, ubuntu, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

Cancel

Connect

```
aws Services Search [Alt+S] Ohio juanbarillas
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-172-31-12-232:~$ sudo su -
root@ip-172-31-12-232:~# apt update
Get:1 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble InRelease [256 kB]
Get:2 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [89.7 kB]
Get:3 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [89.7 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [89.7 kB]
Get:5 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/main amd64 Packages [1401 kB]
Get:6 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/main Translation-en [513 kB]
Get:7 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [32.2 kB]
Get:9 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:10 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [10.3 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [16.3 kB]
Get:12 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [5844 B]
Get:13 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [112 B]
Get:14 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [116 B]
Get:15 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:16 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:17 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/restricted amd64 Packages [93.9 kB]
Get:18 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/restricted Translation-en [18.7 kB]
Get:19 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:20 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:21 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:22 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:23 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [77.1 kB]
Get:24 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [20.9 kB]
Get:25 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [35.7 kB]
Get:26 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [12.6 kB]
Get:27 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [112 B]
Get:28 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [116 B]
Get:29 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [112 B]
Get:30 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [5812 B]
Get:31 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [2152 B]
Get:32 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [116 B]
Get:33 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
Get:34 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata [116 B]
Fetched 28.4 MB in 6s (5110 kB/s)
```

i-031db0aff67920add (VM-Ubuntu-1)

PublicIPs: 52.15.195.86 PrivateIPs: 172.31.12.232

INSTALANDO EL SERVIDOR APACHE2:

```
Setting up apache2-utils (2.4.58-1ubuntu8.1) ...
Setting up apache2-bin (2.4.58-1ubuntu8.1) ...
Setting up apache2 (2.4.58-1ubuntu8.1) ...
Enabling module mpm_event.
Enabling module authz_core.
Enabling module authz_host.
Enabling module authn_core.
Enabling module auth_basic.
Enabling module access_compat.
Enabling module authn_file.
Enabling module authz_user.
Enabling module alias.
Enabling module dir.
Enabling module autoindex.
Enabling module env.
Enabling module mime.
Enabling module negotiation.
Enabling module setenvif.
Enabling module filter.
Enabling module deflate.
Enabling module status.
Enabling module reqtimeout.
Enabling conf charset.
Enabling conf localized-error-pages.
Enabling conf other-vhosts-access-log.
Enabling conf security.
Enabling conf serve-cgi-bin.
Enabling site 000-default.
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /usr/lib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /usr/lib/systemd/system/apache-htcacheclean.service.
Processing triggers for ufw (0.36.2-6) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@ip-172-31-12-232:~#
```

DIRECCION IPV4 PUBLICA

The screenshot displays the AWS Management Console interface. On the left, there is a navigation menu with options like EC2 Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity, Reservations, Images, AMIs, AMI Catalog, Elastic Block Store, Volumes, Snapshots, Lifecycle Manager, and Network & Security. The main content area shows the 'Instance summary' for the instance 'i-031db0aff67920add (VM-Ubuntu-1)'. The instance is in the 'Running' state. The public IPv4 address is 52.15.195.86. The private IP address is 172.31.12.232. The instance type is t2.micro. The console also shows the instance's hostname, IP name, and VPC ID.

Instance summary for i-031db0aff67920add (VM-Ubuntu-1) Info		
Instance ID i-031db0aff67920add (VM-Ubuntu-1)	Public IPv4 address 52.15.195.86 open address	Private IPv4 addresses 172.31.12.232
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-52-15-195-86.us-east-2.compute.amazonaws.com open address
Hostname type IP name: ip-172-31-12-232.us-east-2.compute.internal	Private IP DNS name (IPv4 only) ip-172-31-12-232.us-east-2.compute.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t2.micro	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations. Learn more
Auto-assigned IP address 52.15.195.86 [Public IP]	VPC ID vpc-04b3b764448996e40	Auto Scaling Group name -
IAM Role -	Subnet ID subnet-0315e9cf64617aee1	
IMDSv2		

VERIFICANDO QUE SIRVA EL SERVIDOR APACHE2:



The screenshot shows a web browser window with the Apache2 Default Page on Ubuntu. The page features the Ubuntu logo and the text 'Apache2 Default Page' and 'It works!'. Below this, there is a paragraph explaining that this is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It also mentions that if you can read this page, it means that the Apache HTTP server installed at this site is working properly. A note advises to replace this file (located at `/var/www/html/index.html`) before continuing to operate your HTTP server. A second paragraph explains that 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
```