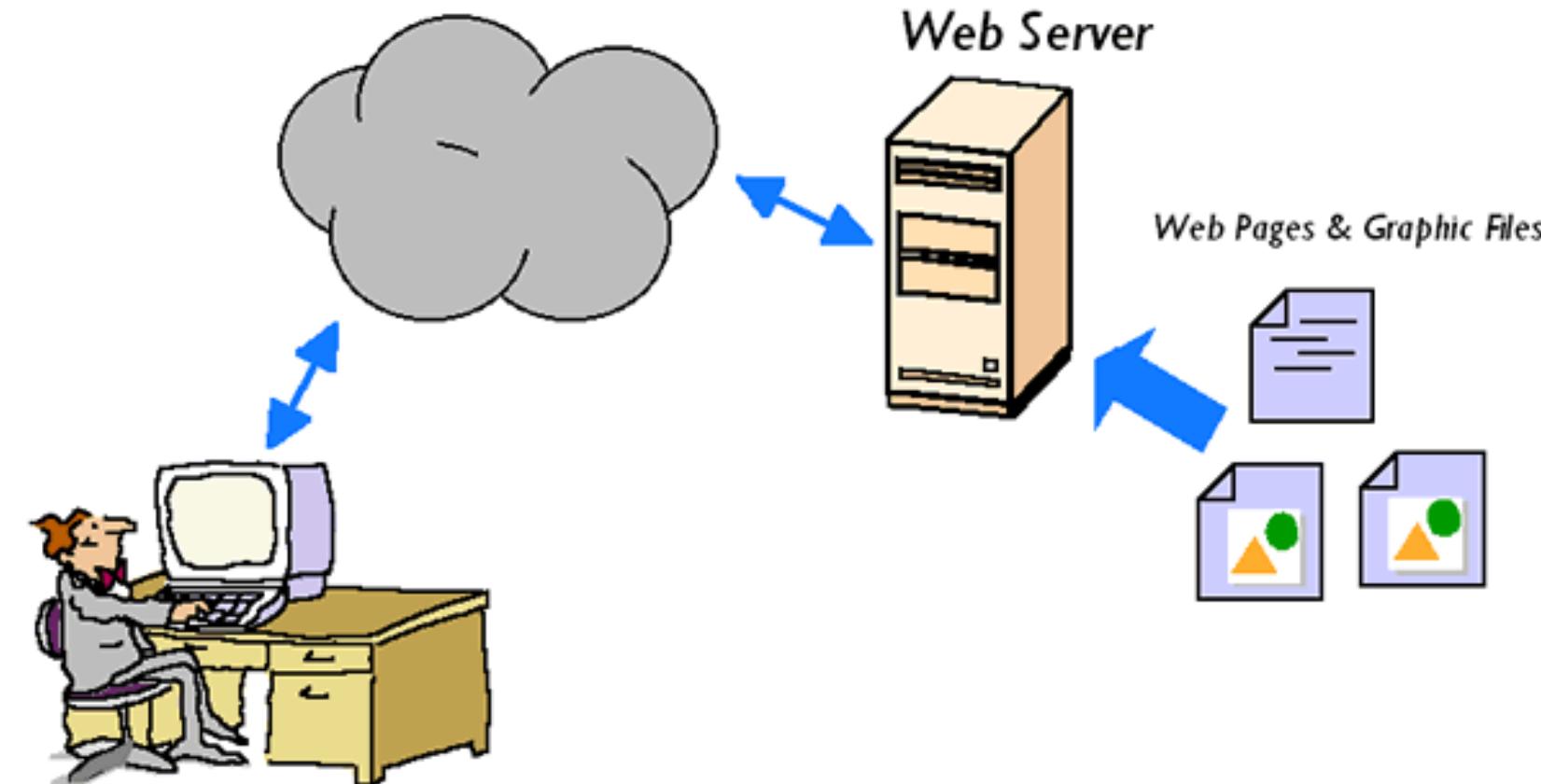


Software y estándares para la Web

Seminario 3: AWS – Servidor Web

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Software y estándares para la Web

Esquema

- ¿Qué es un servidor Web?
- Servidor Web Apache
- LAMP
- Instalar Apache con Ubuntu Linux
- Instalar Apache con Amazon Linux
- Instalar LAMP con Amazon Linux
- Resumen
- Lecturas recomendadas
- Referencias
- Trabajos

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Software y estándares para la Web

Esquema

- ¿Qué es un servidor Web?
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- Instalar Apache con Ubuntu Linux
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- Instalar LAMP con Amazon Linux
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- Trabajos

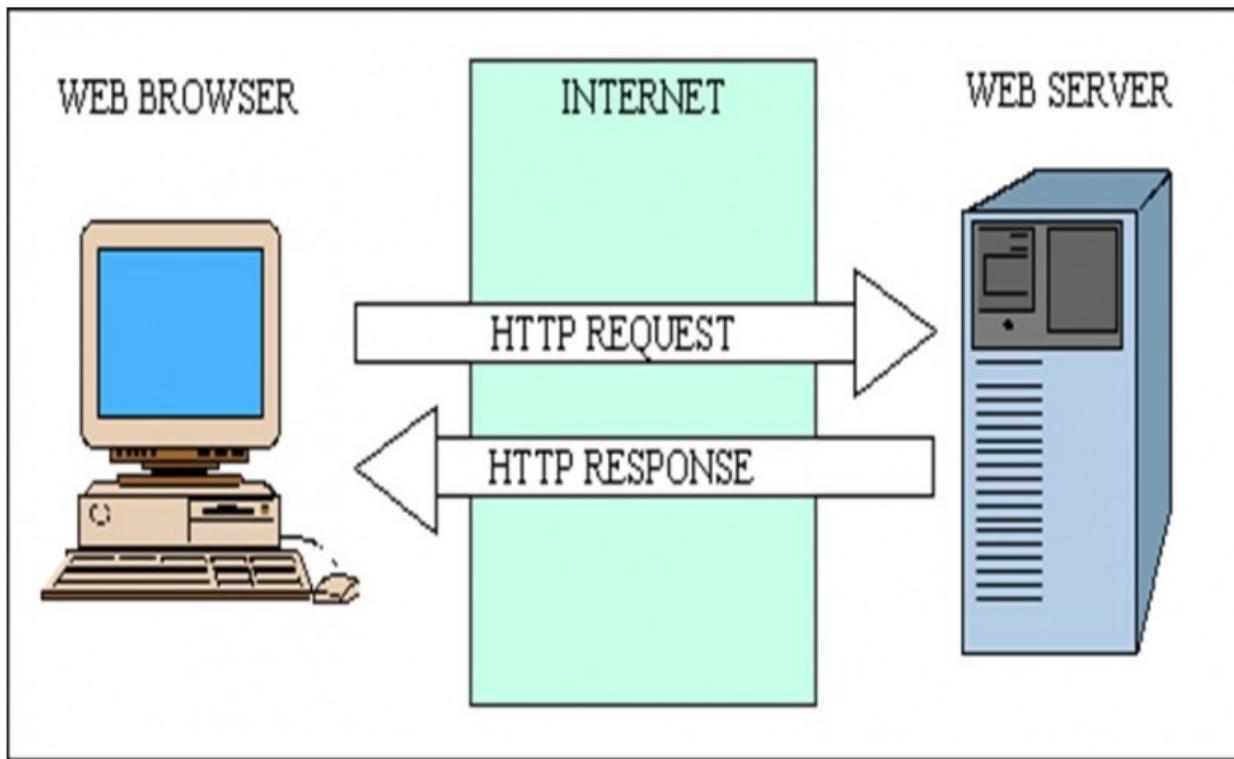
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Informática
del Software

Software y estándares para la Web

¿Qué es un servidor Web? (I)

- Es un programa que procesa **peticiones HTTP** y **envía respuestas HTTP**
- HTTP (**Hypertext Transfer Protocol**) es el protocolo más usado para distribuir información en la Web (World Wide Web)

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Software y estándares para la Web

¿Qué es un servidor Web? (II)

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del Software

Web browser



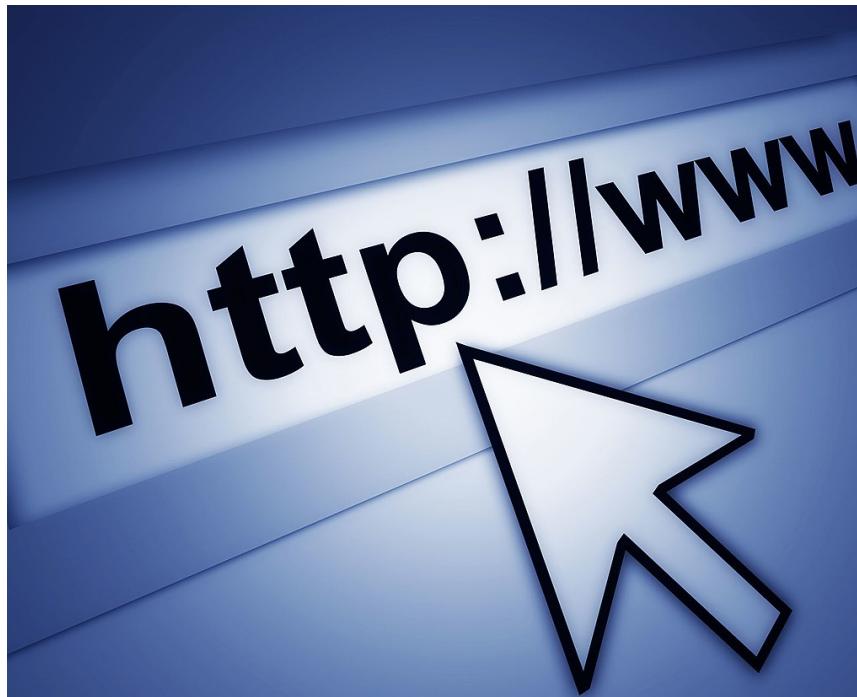
Web server

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Protocolo HTTP (Hypertext Transfer Protocol)

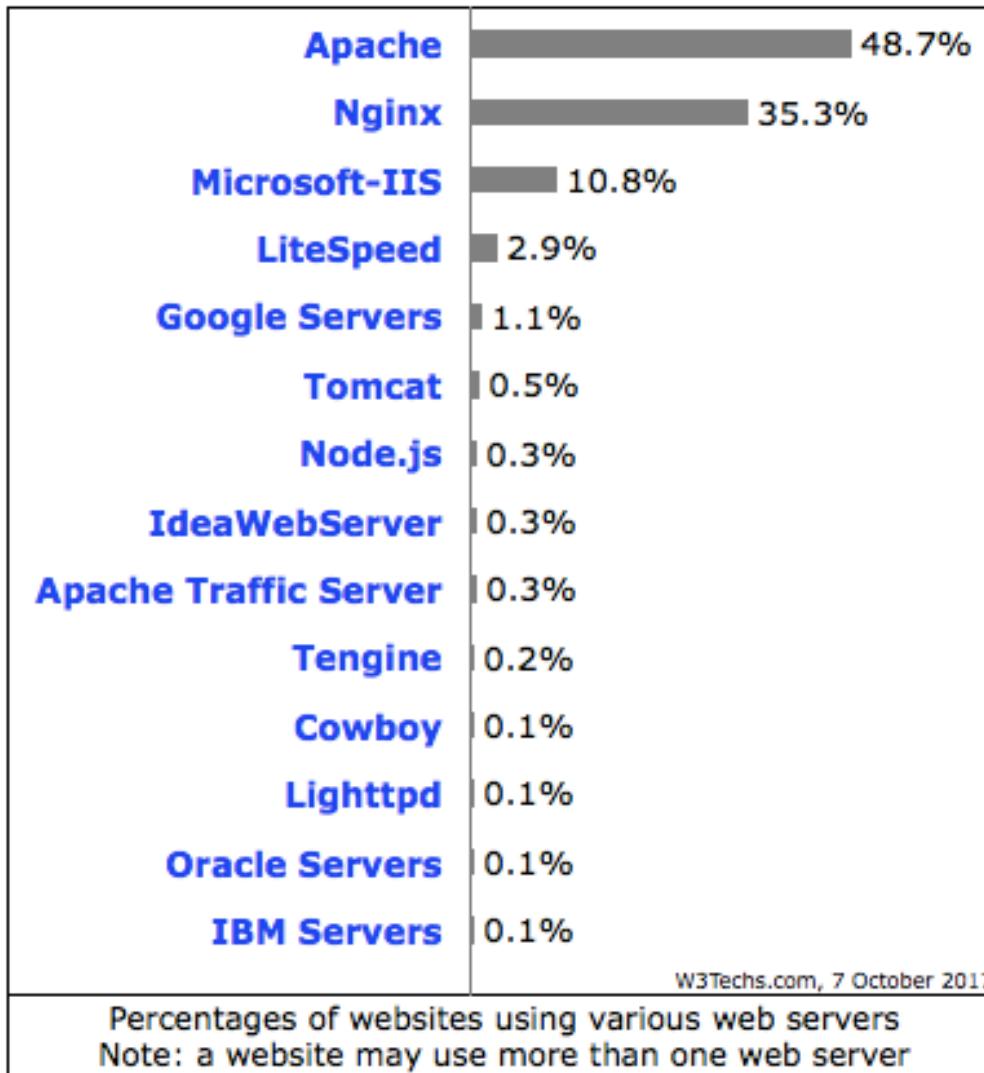
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- HTTP define la **sintaxis** y la **semántica** que utilizan los elementos de software de la **arquitectura web** (clientes, servidores, proxies) **para comunicarse**.
- HTTP es un **protocolo sin estado**, es decir, no guarda ninguna información sobre conexiones anteriores
- **Estándar** del W3C
 - <https://www.w3.org/Protocols/>



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Servidores Web más utilizados: https://w3techs.com/technologies/overview/web_server/all



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Software y estándares para la Web

Esquema

- ¿Qué es un servidor Web?
- **Servidor Web Apache**
- LAMP
- Instalar Apache con Ubuntu Linux
- Instalar Apache con Amazon Linux
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Software y estándares para la Web

Servidor Web Apache

- El **servidor HTTP Apache** es un servidor web HTTP de código abierto
- Apache es usado principalmente para enviar **páginas web estáticas y dinámicas** en la World Wide Web (Web)
- Está disponible para los sistemas operativos Unix (BSD, GNU/Linux, etc.), Microsoft Windows, Macintosh y otras
- Implementa el protocolo **HTTP**
- La arquitectura del servidor Apache es muy modular
- El servidor consta de una sección **core** y diversos **módulos** que aportan mucha de la funcionalidad
- El servidor de base puede ser extendido con la inclusión de **módulos externos** entre los cuales se encuentran:
 - mod_perl - Páginas dinámicas en Perl
 - mod_php - Páginas dinámicas en PHP
 - mod_python - Páginas dinámicas en Python
 - mod_ruby - Páginas dinámicas en Ruby
 - mod_mono - Páginas dinámicas en Mono

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Apache

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LAMP (I)

- **LAMP** es el acrónimo usado para describir un sistema de infraestructura de Internet que usa las siguientes herramientas:
 - **Linux**, como sistema operativo
 - **Apache**, como servidor web
 - **MySQL / MariaDB / MongoDB**, como gestores de bases de datos
 - **Perl, PHP, o Python**, como lenguajes de programación

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LAMP (II): Configuración habitual

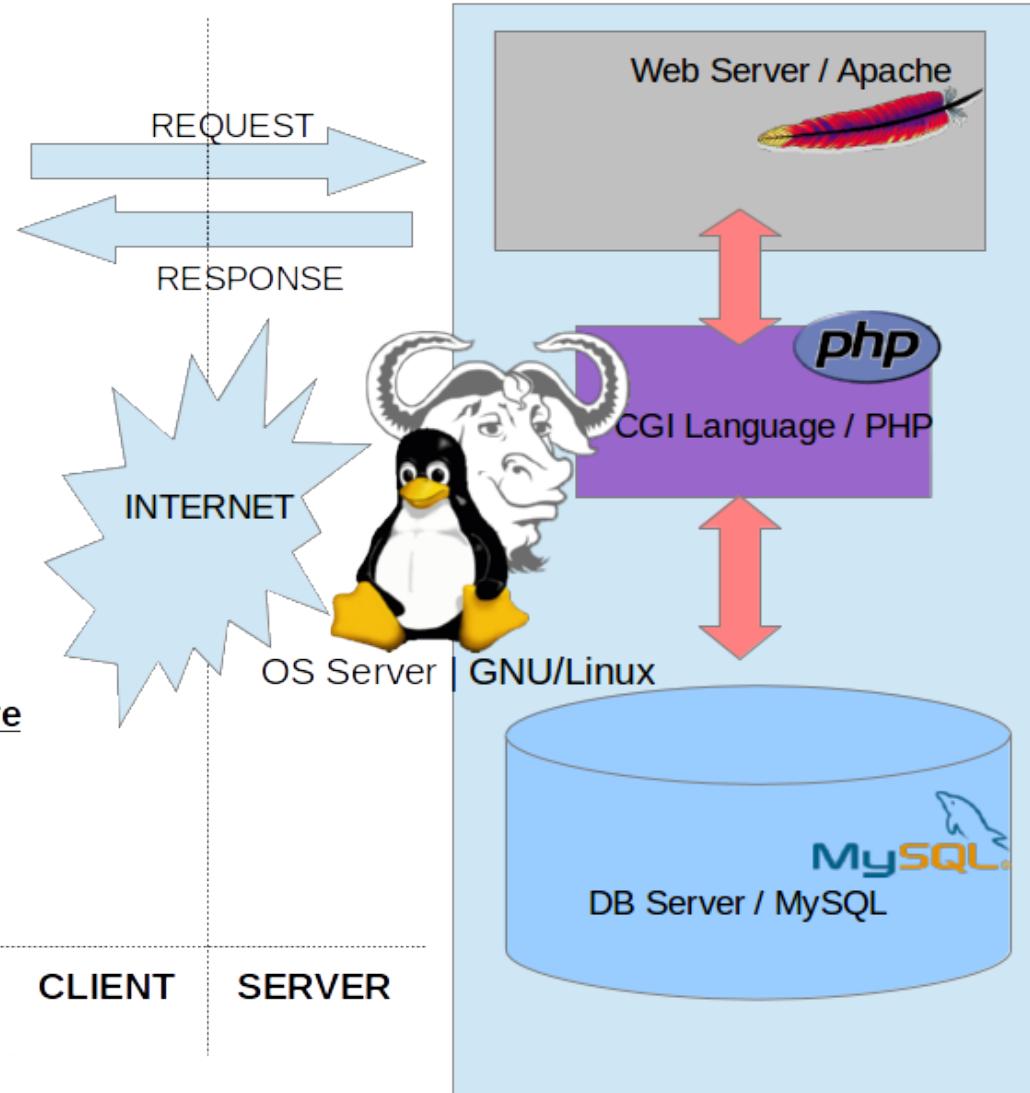
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Browser / Firefox



LAMP Architecture

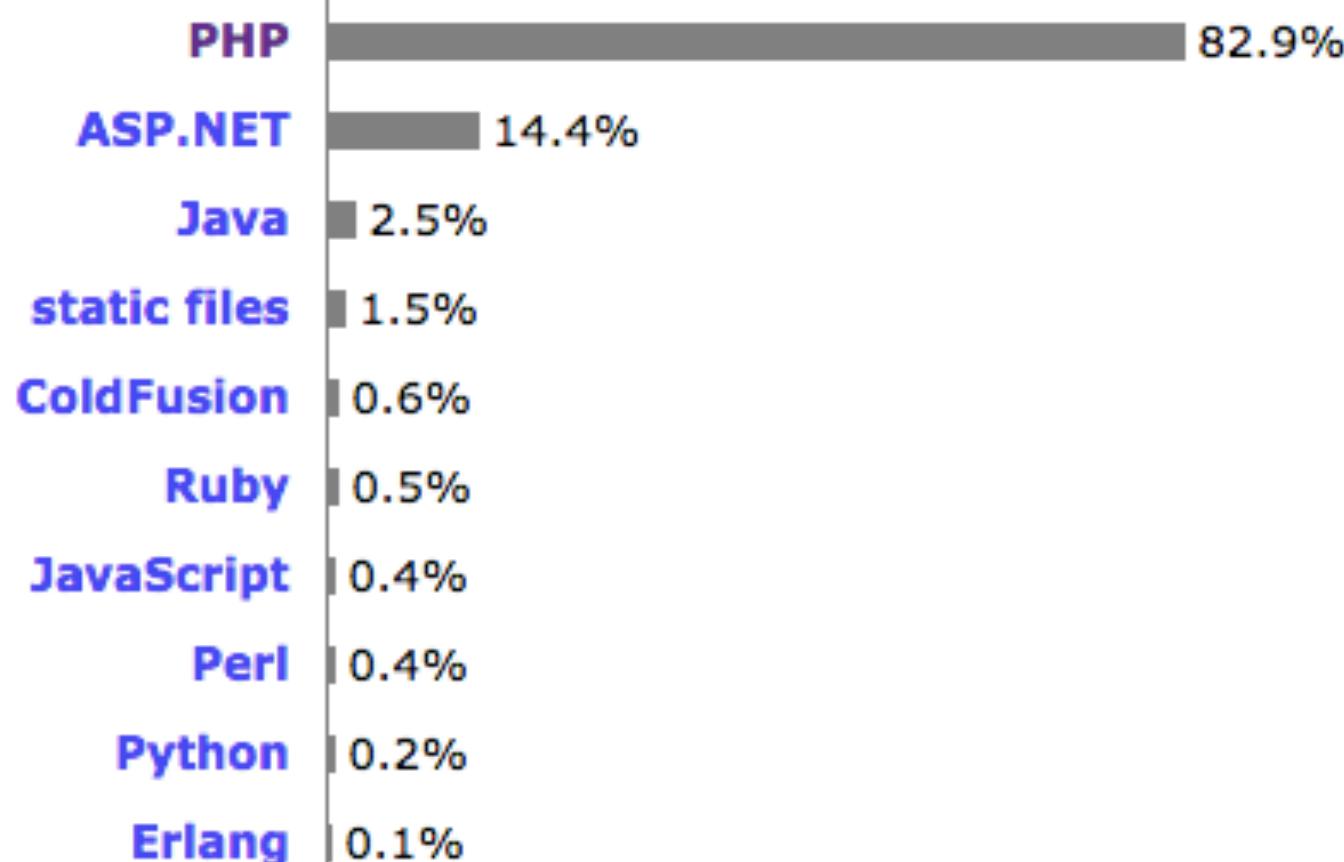
- Linux - OS
- Apache - Web
- MySQL - DB
- PHP - Script



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LAMP (III): Lenguajes de programación más usados en el servidor

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W3Techs.com, 16 October 2017

Percentages of websites using various server-side programming languages
Note: a website may use more than one server-side programming language

Software y estándares para la Web

Esquema

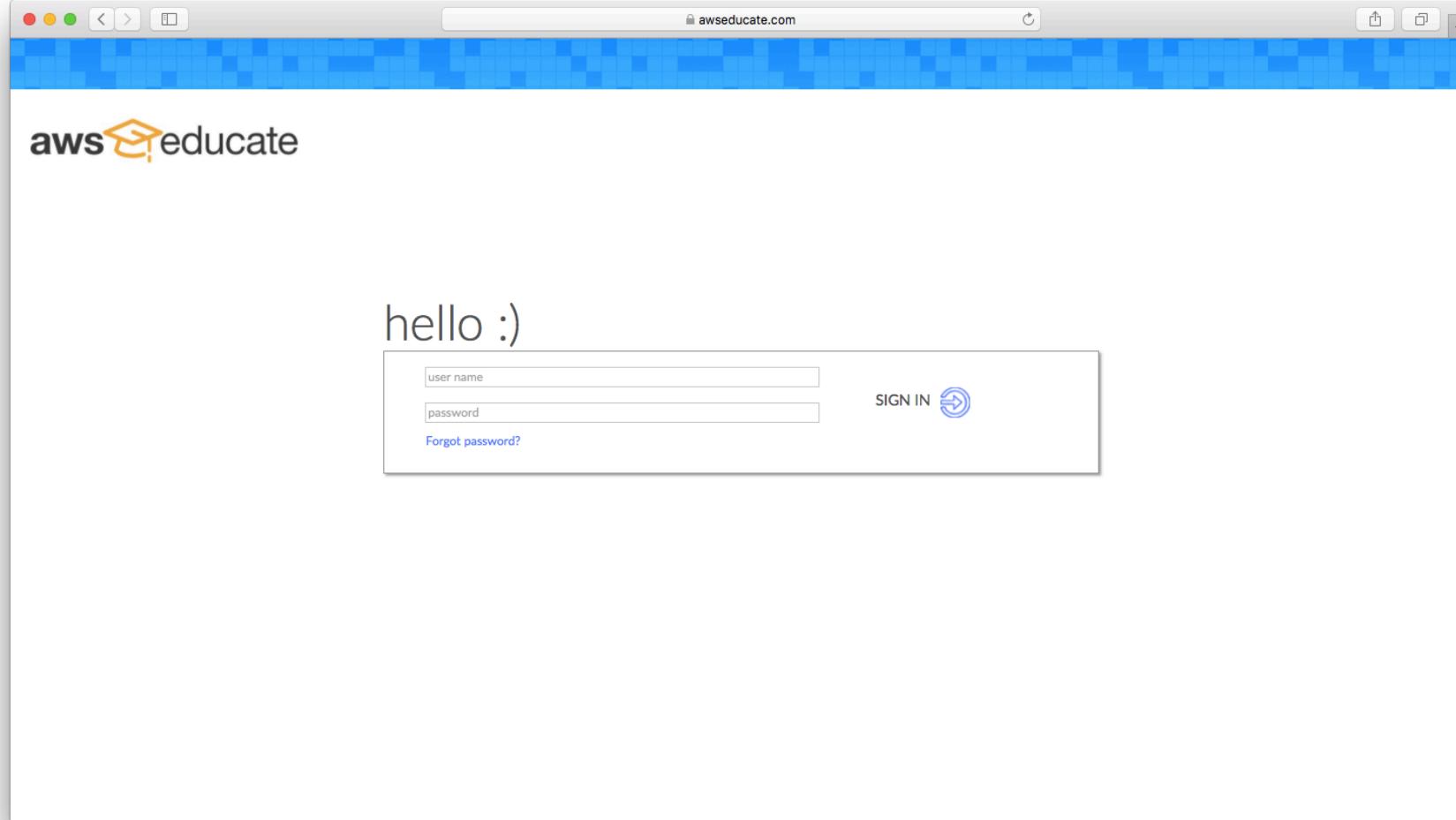
- ¿Qué es un servidor Web?
- Servidor Web Apache
- LAMP
- **Instalar Apache con Ubuntu Linux**
- Instalar Apache con Amazon Linux
- Instalar LAMP con Amazon Linux
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- Lecturas recomendadas
- Referencias
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Software y estándares para la Web

Instalar Apache con Ubuntu Linux: <https://www.awseducate.com/signin/SiteLogin>

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Instalar Apache con Ubuntu Linux: **Go to your AWS Educate Starter Account**

The screenshot shows the AWS Educate homepage. At the top right, there is a red circle around a button labeled "Go to your AWS Educate Starter Account". Below this button, a note states: "Note: Clicking this button will take you to a third party site managed by AWS, Inc. (Third Party Servicer). By clicking this button, you agree to the AWS Educate terms of service, your use of the AWS Educate Starter Account is governed by the Third Party Servicer's terms, including its Privacy Policy. AWS assumes no responsibility or liability and makes no representations or warranties regarding services provided by a Third Party Servicer." The rest of the page contains sections for "Explore Content", "Skill up on AWS", "Events", and "Free Access to AWS".

Welcome to AWS Educate

Welcome to AWS Educate, Amazon's global initiative to provide students and educators with the resources needed to greatly accelerate cloud-related learning and help students prepare for a cloud-enabled workplace! AWS Educate provides four pillars of grant-based support—content on the Cloud contributed by AWS and top educators; training materials to help you skill up on AWS; collaboration tools such as an events page; and credits to access AWS services for free. You should have received AWS credits when you signed up; you can try out the skill up resources from AWS including free labs on services such as EC2, S3, and others, and collaborate with other students at online and in-person events. We'll continue to roll out features to help you dive deep into the cloud.

Explore Content
Discover "open source" course content contributed by educators and AWS.
[Find content now »](#)

Skill up on AWS
Find everything you need to ramp up on AWS.
[Learn more »](#)

Events
Discover events where you can connect with other AWS users.
[Find events »](#)

Free Access to AWS
Free access to AWS for in-classroom use.
[Get AWS Credits »](#)

Messages and Alerts

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Software y estándares para la Web

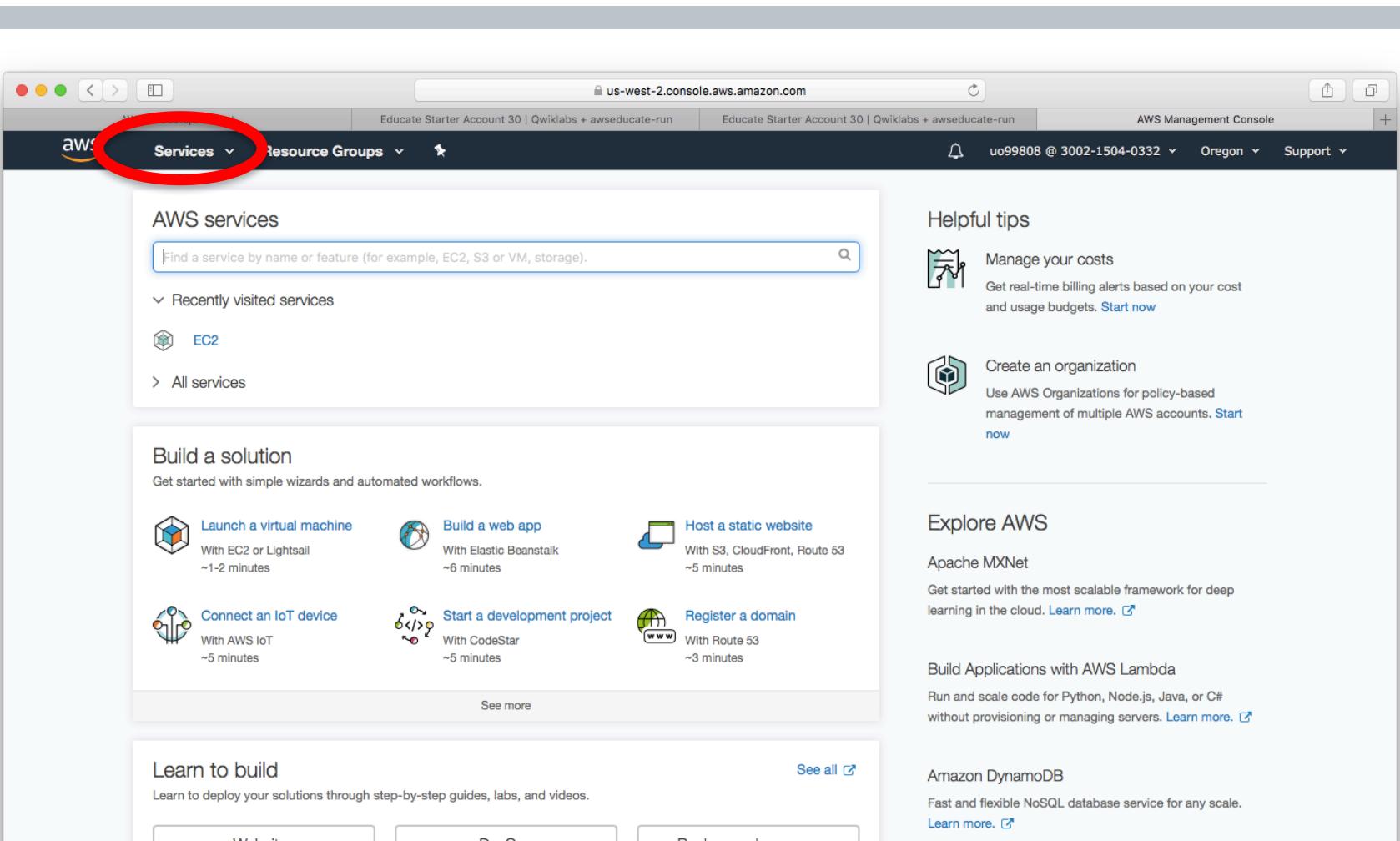
Instalar Apache con Ubuntu Linux: AWS Educate Starter Account

The screenshot shows the AWS Educate Starter Account 30 dashboard. At the top, it displays '524160m Acceso · 524160m finalización' with a 4-star rating, 'Calificación de laboratorio', and 'Detalles de Laboratorio'. Below this, there's a 'Running Lab' status indicator, a red 'FIN DE LABORATORIO' button, and account information '\$30.00' and '177 días'. A large yellow button labeled 'ABRIR CONSOLA' is highlighted with a red circle. To its left, under 'CONNECTION DETAILS', are fields for 'Clave de Acceso Id' (AKIAJTB7NHJFVEQN3CXA) and 'Clave de Acceso Secreta' (Zaj0Ge0SjF+fKN2B7yMNS96RbeLRz061v), each with a copy icon. A warning message at the bottom left says: 'Warning: Do not transmit data into the AWS Console that is not related to Qwiklabs or the lab you are taking.' On the right side, there's a question mark icon.

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Instalar Apache con Ubuntu Linux: **Services**



The screenshot shows the AWS Management Console interface. At the top, there's a navigation bar with tabs for 'Services' (which is circled in red), 'Resource Groups', and a search bar. Below the navigation bar, there's a sidebar titled 'AWS services' with a search input field. Under 'Recently visited services', 'EC2' is listed. There are also links for 'All services', 'Build a solution', and 'Learn to build'. The main content area features several quick-start options: 'Launch a virtual machine', 'Build a web app', 'Host a static website', 'Connect an IoT device', 'Start a development project', and 'Register a domain'. Each option includes a small icon, a title, a brief description, and a time estimate. At the bottom of the main content area, there are buttons for 'Websites', 'DevOps', and 'Backup and recovery'. To the right of the main content area, there's a 'Helpful tips' section with links to 'Manage your costs' and 'Create an organization', and an 'Explore AWS' section with links to 'Apache MXNet', 'Build Applications with AWS Lambda', and 'Amazon DynamoDB'.

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Instalar Apache con Ubuntu Linux: Se utiliza EC2

The screenshot shows the AWS Management Console interface. At the top, there are tabs for "Hotmail, Outlook, El Tiempo" and "EC2 Management Cons". Below the tabs, the URL is "us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2". The main navigation bar includes "Services" (selected), "Resource Groups", and other options like "Oregon" and "Support". On the left, a sidebar lists "History", "EC2" (selected), "Console Home", and "Billing". The main content area displays various AWS services categorized into groups:

- Compute**: EC2 (circled in red), EC2 Container Service, Lightsail, Elastic Beanstalk, Lambda, Batch.
- Storage**: S3, EFS, Glacier, Storage Gateway.
- Database**.
- Developer Tools**: CodeCommit, CodeBuild, CodeDeploy, CodePipeline, X-Ray.
- Management Tools**: CloudWatch, CloudFormation, CloudTrail, Config, OpsWorks, Service Catalog, Trusted Advisor.
- Analytics**: Athena, EMR, CloudSearch, Elasticsearch Service, Kinesis, Data Pipeline, QuickSight.
- Artificial Intelligence**: Lex, Polly, Rekognition, Machine Learning.
- Application Services**: Step Functions, SWF, API Gateway, Elastic Transcoder.
- Messaging**: Simple Queue Service, Simple Notification Service, SES.
- Business Productivity**: WorkDocs, WorkMail, Amazon Chime.

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Instalar Apache con Ubuntu Linux: Se lanza una instancia

EC2 Management Cons X + us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2 Services Resource Groups

EC2 Dashboard Events Tags Reports Limits INSTANCES Instances Spot Requests Reserved Instances Scheduled Instances Dedicated Hosts IMAGES AMIs Bundle Tasks ELASTIC BLOCK STORE Volumes Snapshots NETWORK & SECURITY

Resources You are using the following Amazon EC2 resources in the US West (Oregon) region:

0 Running Instances	0 Elastic IPs
0 Dedicated Hosts	0 Snapshots
2 Volumes	0 Load Balancers
3 Key Pairs	3 Security Groups
0 Placement Groups	

Just need a simple virtual private server? Get everything you need to jumpstart your project - compute, storage, and networking – for a low, predictable price. [Try Amazon Lightsail for free.](#)

Create Instance To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.

[Launch Instance](#)

Note: Your instances will launch in the US West (Oregon) region

Service Health Scheduled Events

Account Attributes

Supported Platforms VPC Default VPC vpc-75220911 Resource ID length management

Additional Information

Getting Started Guide Documentation All EC2 Resources Forums Pricing Contact Us

AWS Marketplace

Find free software trial products in the AWS Marketplace from the [EC2 Launch Wizard](#). Or try these popular AMIs:

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Instalar Apache con Ubuntu Linux: Paso 1 - Se elige Ubuntu Server

EC2 Management Cons X + us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard:

Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 1: Choose an Amazon Machine Image (AMI)

SUSE Linux Enterprise Server 12 SP2 (HVM), SSD Volume Type - ami-e4a30084
SUSE Linux Free tier eligible SUSE Linux Enterprise Server 12 Service Pack 2 (HVM), EBS General Purpose (SSD) Volume Type. Public Cloud, Advanced Systems Management, Web and Scripting, and Legacy modules enabled. 64-bit

Ubuntu Server 16.04 LTS (HVM), SSD Volume Type - ami-a58d0dc5
Ubuntu Server 16.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>). 64-bit

Microsoft Windows Server 2016 Base - ami-94e26af4
Windows Free tier eligible Microsoft Windows 2016 Datacenter edition. [English] 64-bit

Are you launching a database instance? Try Amazon RDS.

Cancel and Exit Select Select Select Hide

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Instalar Apache con Ubuntu Linux: Paso 2 - Se elige un tipo de instancia

EC2 Management Cons X + us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard:

Services | Resource Groups | Services | Resource Groups | uo99808 @ 3002-1504-0332 | Oregon | Support

1. Choose AMI | 2. Choose Instance Type | 3. Configure Instance | 4. Add Storage | 5. Add Tags | 6. Configure Security Group | 7. Review

Step 2: Choose an Instance Type

Filter by: All instance types | Current generation | Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro <small>Free tier eligible</small>	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Configure Instance Details](#)

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Instalar Apache con Ubuntu Linux: Paso 3 – Configuración de la instancia

The screenshot shows the AWS EC2 Management Console interface for launching a new instance. The top navigation bar includes tabs for Services, Resource Groups, and various account and region details. Below the navigation is a step-by-step wizard with tabs: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance (which is selected and highlighted in orange), 4. Add Storage, 5. Add Tags, 6. Configure Security Group, and 7. Review.

Step 3: Configure Instance Details

Purchasing option: Request Spot instances

Network: vpc-75220911 | DEFAULT-VPC (default)

Subnet: No preference (default subnet in any Availability Zone)

Auto-assign Public IP: Use subnet setting (Enable)

IAM role: None **Warning:** You do not have permissions to list any IAM roles. Contact your administrator, or check your IAM permissions.

Shutdown behavior: Stop

Enable termination protection: Protect against accidental termination

Monitoring: Enable CloudWatch detailed monitoring
Additional charges apply.

Tenancy: Shared - Run a shared hardware instance

Buttons at the bottom: Cancel, Previous, **Review and Launch** (highlighted in blue), and Next: Add Storage.

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Instalar Apache con Ubuntu Linux: Paso 4 – Añadir almacenamiento

EC2 Management Cons X + us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard: Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encrypted
Root	/dev/sda1	snap-090acef382b239622	8	General Purpose SSD (GP2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

Cancel Previous Review and Launch Next: Add Tags

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Instalar Apache con Ubuntu Linux: Paso 5 – añadir etiquetas Clave-Valor

EC2 Management Cons X +

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard:

Services | Resource Groups | *

1. Choose AMI | 2. Choose Instance Type | 3. Configure Instance | 4. Add Storage | **5. Add Tags** | 6. Configure Security Group | 7. Review

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.

A copy of a tag can be applied to volumes, instances or both.

Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key	(127 characters maximum)	Value	(255 characters maximum)	Instances	Volumes
Key	MaquinaUbuntuEstudiante3	Value	maquinaUbuntuEstudiante3	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Add another tag (Up to 50 tags maximum)

Cancel Previous **Review and Launch** Next: Configure Security Group

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Instalar Apache con Ubuntu Linux: Paso 6 – Configurando SSH y HTTP

The screenshot shows the AWS EC2 Management Console interface for launching a new Amazon Linux instance. The top navigation bar includes 'EC2 Management Cons', a search bar with the URL 'us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard:', and account information 'uo99808 @ 3002-1504-0332'. The main menu has 'Services' selected, followed by 'Resource Groups'. The wizard steps are numbered 1 through 7, with step 6 currently active: '6. Configure Security Group'. Below the steps, the title 'Step 6: Configure Security Group' is displayed. A descriptive text explains that a security group is a set of firewall rules that control traffic to the instance. It suggests adding rules for HTTP and HTTPS ports if a web server is being used. A link to 'Learn more' about security groups is provided. The configuration form includes fields for 'Security group name' (set to 'launch-wizard-3') and 'Description' (set to 'launch-wizard-3 created 2017-04-13T18:59:18.603-05:00'). The 'Type' section lists 'SSH' and 'HTTP'. The 'Protocol' section lists 'TCP' for both. The 'Port Range' section shows '22' for SSH and '80' for HTTP. The 'Source' section shows 'Custom' with '0.0.0.0/0' for both. At the bottom right are 'Cancel', 'Previous', and 'Review and Launch' buttons.

Assign a security group:

Create a new security group
 Select an existing security group

Security group name: launch-wizard-3

Description: launch-wizard-3 created 2017-04-13T18:59:18.603-05:00

Type	Protocol	Port Range	Source
SSH	TCP	22	Custom 0.0.0.0/0
HTTP	TCP	80	Custom 0.0.0.0/0, ::/0

Add Rule

Cancel Previous Review and Launch

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Instalar Apache con Ubuntu Linux: Paso 7 – Revisar la instancia antes de lanzarla

EC2 Management Cons X + us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard:

Services Resource Groups

uo99808 @ 3002-1504-0332 Oregon Support

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 7: Review Instance Launch

⚠ Improve your instances' security. Your security group, launch-wizard-3, is open to the world.

Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only.

You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

AMI Details Edit AMI

Ubuntu Server 16.04 LTS (HVM), SSD Volume Type - ami-a58d0dc5

Free tier eligible

Ubuntu Server 16.04 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

Instance Type Edit instance type

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

Security Groups Edit security groups

Cancel Previous Launch



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Instalar Apache con Ubuntu Linux: Paso 7 – Crear un par de claves nuevas

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Select an existing key pair or create a new key pair X

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

maquinaUbuntuEstudiante3

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

Software y estándares para la Web

Instalar Apache con Ubuntu Linux: Paso 8 – Descargar la llave en un archivo .pem

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¿Qué quieres hacer con maquinaUbuntuEstudiante3.pem?
De: us-west-2.console.aws.amazon.com

Guardar

Guardar como

Cancelar

X

Software y estándares para la Web

Instalar Apache con Ubuntu Linux: Paso 9 – Instancia lanzada

Screenshot of the AWS EC2 Management Console showing the launch status of an instance.

The browser address bar shows: us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard:

The AWS navigation bar includes: Services, Resource Groups, a star icon, a bell icon, uo99808 @ 3002-1504-0332, Oregon, and Support.

Launch Status

Your instances are now launching
The following instance launches have been initiated: i-0fb4de2d7677d1fb7 [View launch log](#)

Get notified of estimated charges
Create [billing alerts](#) to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

Click [View Instances](#) to monitor your instances' status. Once your instances are in the **running** state, you can **connect** to them from the Instances screen. [Find out](#) how to connect to your instances.

▼ Here are some helpful resources to get you started

- [How to connect to your Linux instance](#)
- [Amazon EC2: User Guide](#)
- [Learn about AWS Free Usage Tier](#)
- [Amazon EC2: Discussion Forum](#)

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Instalar Apache con Ubuntu Linux: Paso 10 – Instancia en ejecución

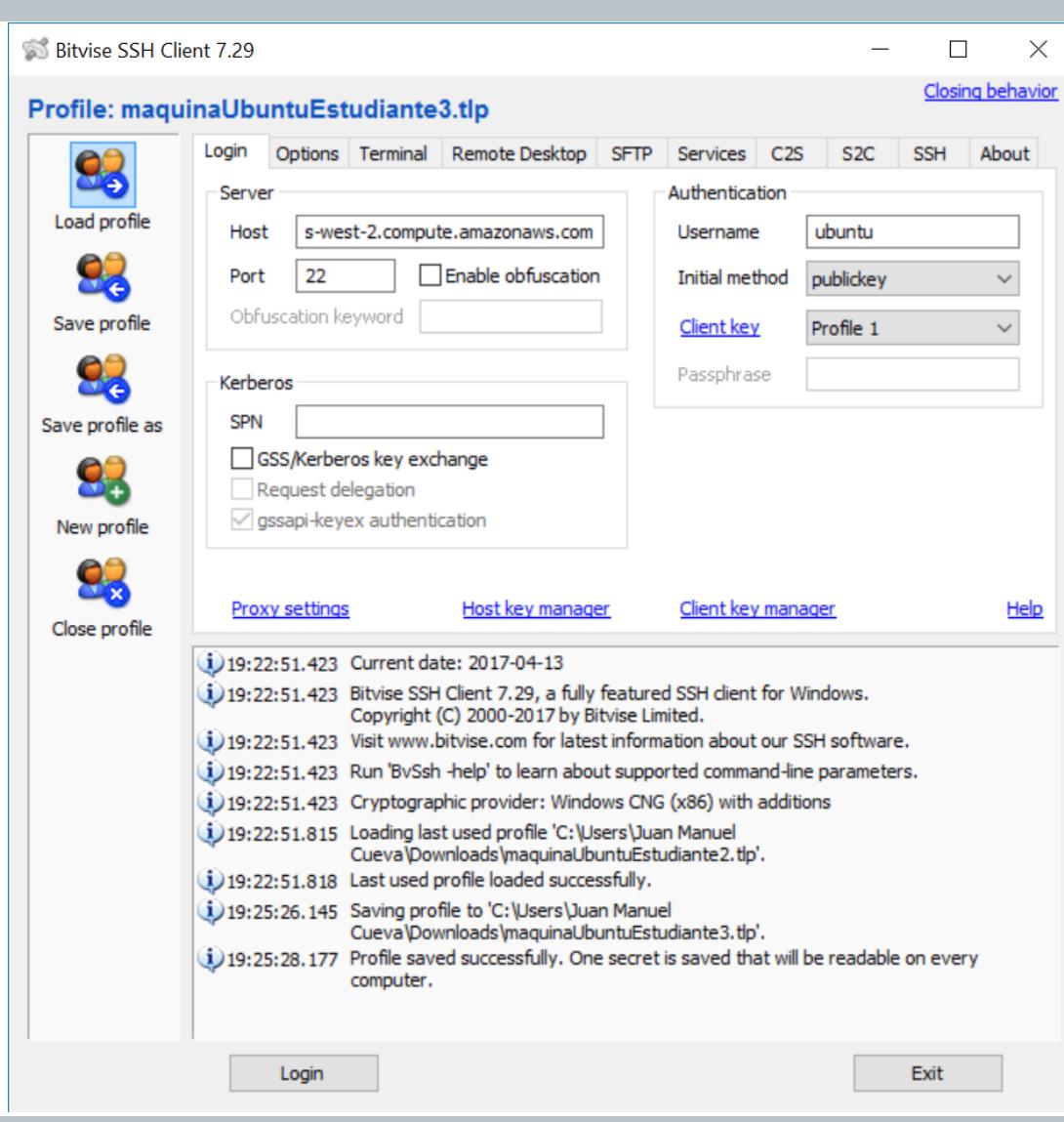
The screenshot shows the AWS EC2 Management Console interface. The left sidebar navigation bar includes links for EC2 Dashboard, Events, Tags, Reports, Limits, INSTANCES (with Instances selected), SPOT REQUESTS, Reserved Instances, Scheduled Instances, Dedicated Hosts, IMAGES (with AMIs selected), Bundle Tasks, ELASTIC BLOCK STORE (with Volumes and Snapshots selected), and NETWORK & SECURITY. The main content area displays a table of instances. A search bar at the top of the table shows a result for 'i-0fb4de2d7677d1fb7'. The table columns are Name, Instance ID, Instance Type, Availability Zone, Instance State, Status Checks, Alarm Status, and Public DNS (IPv4). One row is highlighted for the instance with ID 'i-0fb4de2d7677d1fb7', which is a t2.micro type in us-west-2a, currently running, with status checks initializing and no alarms, and a public DNS of 'ec2-34-223-213-66.us-west-2.compute.amazonaws.com'. Below this, a detailed view for the same instance shows fields like Instance ID, Instance state, Instance type, and Elastic IPs on the left, and Public DNS (IPv4), IPv4 Public IP, IPv6 IPs, and Private DNS on the right. The bottom of the page includes standard footer links for Feedback, English, Copyright notice (© 2008 - 2017, Amazon Web Services, Inc. or its affiliates. All rights reserved.), Privacy Policy, Terms of Use, and a logo for Escuela de Ingeniería Informática, Universidad de Oviedo.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)
i-0fb4de2d7677d1fb7	t2.micro	us-west-2a	running	Initializing	None		ec2-34-223-213-66.us-west-2.compute.amazonaws.com

Description		Status Checks	Monitoring	Tags
Instance ID	i-0fb4de2d7677d1fb7	Public DNS (IPv4)	ec2-34-223-213-66.us-west-2.compute.amazonaws.com	
Instance state	running	IPv4 Public IP	34.223.213.66	
Instance type	t2.micro	IPv6 IPs	-	
Elastic IPs		Private DNS	ip-172-31-27-95.us-west-2.compute.internal	

Software y estándares para la Web

Instalar Apache con Ubuntu Linux: Paso 11 - Cliente SSH (Bitvise)



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Instalar un servidor Web con Ubuntu Linux: Paso 12- **Cliente SSH (Bitvise)**

- **Host:** ec2-34-223-213-66.us-west-2.compute.amazonaws.com
- **Port:** 22
- **Username:** ubuntu
 - En Ubuntu Linux
- **Initial method:** publickey
- **Client key manager > import > miClave.pem**
- **Client key:** Global1 o Profile1

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Software y estándares para la Web

Instalar Apache con Ubuntu Linux: Paso 13 – Terminal Ubuntu

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```
maquinaUbuntuEstudiante3.tlp - ubuntu@ec2-34-223-213-66.us-west-2.compute.amazonaws.com:22 - ... - X
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-27-95:~$ █
```

Software y estándares para la Web

Instalar Apache con Ubuntu Linux: Paso 14 – Actualizar Ubuntu

```
maquinaUbuntuEstudiante3.tlp - ubuntu@ec2-34-223-213-66.us-west-2.compute.amazonaws.com:22 - ... ━ ━ X
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-27-95:~$ sudo apt update
```

```
maquinaUbuntuEstudiante3.tlp - ubuntu@ec2-34-223-213-66.us-west-2.compute.amazonaws.com:22 - ... ━ ━ X
ges [2,748 B]
Fetched 11.5 MB in 2s (4,173 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
43 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-27-95:~$
```

Software y estándares para la Web

Instalar Apache con Ubuntu Linux: Paso 15 – Instalar apache2

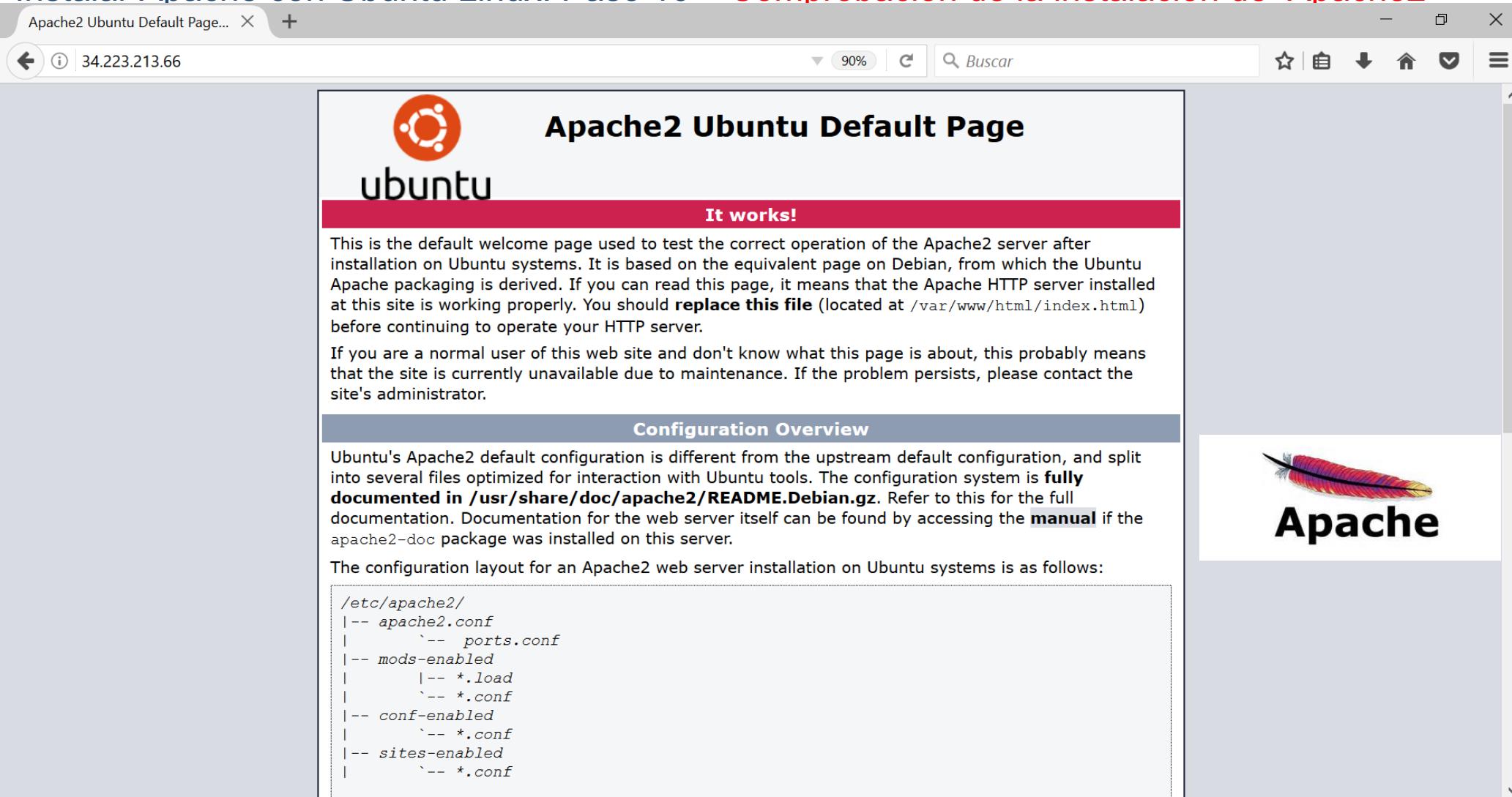


```
maquinaUbuntuEstudiante3.tlp - ubuntu@ec2-34-223-213-66.us-west-2.compute.amazonaws.com:22 - ... — □ X  
ges [2,748 B]  
Fetched 11.5 MB in 2s (4,173 kB/s)  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
43 packages can be upgraded. Run 'apt list --upgradable' to see them.  
ubuntu@ip-172-31-27-95:~$ sudo apt install apache2
```

```
maquinaUbuntuEstudiante3.tlp - ubuntu@ec2-34-223-213-66.us-west-2.compute.amazonaws.com:22 - ... — □ X  
Processing triggers for libc-bin (2.23-0ubuntu5) ...  
Processing triggers for systemd (229-4ubuntu16) ...  
Processing triggers for ureadahead (0.100.0-19) ...  
Processing triggers for ufw (0.35-0ubuntu2) ...  
ubuntu@ip-172-31-27-95:~$
```

Software y estándares para la Web

Instalar Apache con Ubuntu Linux: Paso 16 – Comprobación de la instalación de Apache2



The screenshot shows a web browser window displaying the Apache2 Ubuntu Default Page. The page includes the Ubuntu logo, the title "Apache2 Ubuntu Default Page", and a red banner with the text "It works!". Below this, there is a paragraph explaining the purpose of the page and instructions for replacing the default file. Another paragraph provides information about the configuration overview and links to documentation. A code block shows the directory structure for Apache2 configuration files. To the right of the main content area, there is a graphic featuring a feather and the word "Apache".

Apache2 Ubuntu Default Page

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
```

Software y estándares para la Web

Instalar Apache con Ubuntu Linux: Paso 17 – Comprobación de la instalación de Apache2

```
maquinaUbuntuEstudiante3.tlp - ubuntu@ec2-34-223-213-66.us-west-2.compute.amazonaws.com:22 - ... ━ ─ ━ X
Processing triggers for libc-bin (2.23-0ubuntu5) ...
Processing triggers for systemd (229-4ubuntu16) ...
Processing triggers for ureadahead (0.100.0-19) ...
Processing triggers for ufw (0.35-0ubuntu2) ...
ubuntu@ip-172-31-27-95:~$ sudo ufw app info "Apache Full"
```

```
maquinaUbuntuEstudiante3.tlp - ubuntu@ec2-34-223-213-66.us-west-2.compute.amazonaws.com:2... ━ ─ ━ X
ubuntu@ip-172-31-27-95:~$ sudo ufw app info "Apache Full"
Profile: Apache Full
Title: Web Server (HTTP,HTTPS)
Description: Apache v2 is the next generation of the omnipresent Apache web
server.

Ports:
  80,443/tcp
ubuntu@ip-172-31-27-95:~$
```

Software y estándares para la Web

Instalar Apache con Ubuntu Linux: Paso 18 – Crear la carpeta **public_html** y permisos

```
maquinaUbuntuEstudiante3.tlp - ubuntu@ec2-34-223-213-66.us-west-2.compute.amazonaws.com:2... — □ X
ubuntu@ip-172-31-27-95:~$ mkdir public_html
ubuntu@ip-172-31-27-95:~$ chmod 777 public_html
ubuntu@ip-172-31-27-95:~$ sudo a2enmod userdir
Enabling module userdir.
To activate the new configuration, you need to run:
  service apache2 restart
ubuntu@ip-172-31-27-95:~$ sudo service apache2 restart
```

Software y estándares para la Web

Instalar Apache con Ubuntu Linux: Paso 19 – Crear archivo **index.html**

```
<!DOCTYPE html>
<html lang="es">
<head>
  <meta charset="UTF-8">
  <title>Saludo</title>
</head>
<body>
<h1>Hola a todos!</h1>
</body>
</html>
```

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Instalar Apache con Ubuntu Linux: Paso 20 – Transferir el archivo **index.html** a la carpeta **public_html**

The screenshot shows the Bitvise SFTP interface with two panes: Local files and Remote files.

Local files: C:\Users\Juan Manuel Cueva\Dropbox\Asignaturas\UDISTRITAL\ISOS\05-AWS

Name	Size	Type	Date Modified	Attributes
cueva-oscar-ubuntu.tlp	4.650	Bitvise SSH ...	10/04/2017 23:15	A
cueva.pem	1.692	Archivo PEM	01/04/2017 18:14	A
cuevalovelinux.pem	1.692	Archivo PEM	10/04/2017 22:04	A
cuevalovelinux.tlp	5.214	Bitvise SSH ...	11/04/2017 1:16	A
index.html	146	Archivo HT...	13/04/2017 20:08	A
maquinaUbuntuEstudiante2.pem	1.692	Archivo PEM	13/04/2017 16:14	A
maquinaUbuntuEstudiante2.tlp	6.383	Bitvise SSH ...	13/04/2017 16:18	A
UbuntuMaquinaEstudiante.pem	1.692	Archivo PEM	13/04/2017 10:36	A
UbuntuMaquinaEstudiante.tlp	5.955	Bitvise SSH ...	13/04/2017 10:45	A

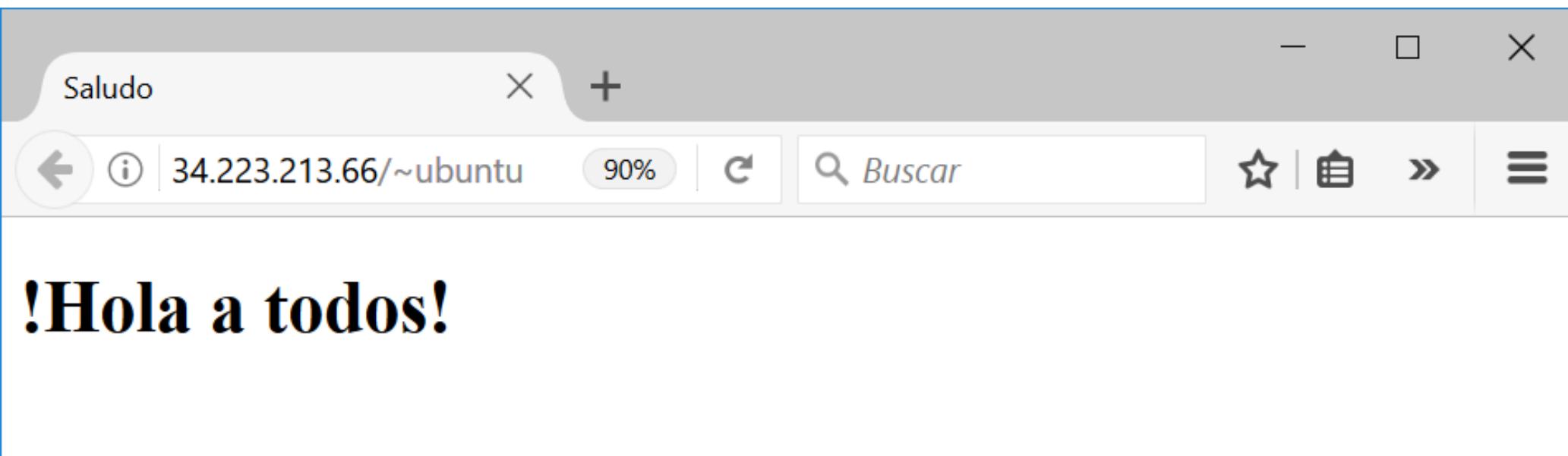
Remote files: /home/ubuntu/public_html

Name	Size	Type	Date Modified	Permissions
index.html	146	Archivo HT...	13/04/2017 20:08	-rw-rw-r-

At the bottom, there are upload and download buttons: Upload: Binary, Resume, Overwrite, Start, Pause, and a message indicating "1 item uploaded".

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Instalar Apache con Ubuntu Linux: Paso 21 – Visualización del archivo **index.html** en el navegador



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Esquema

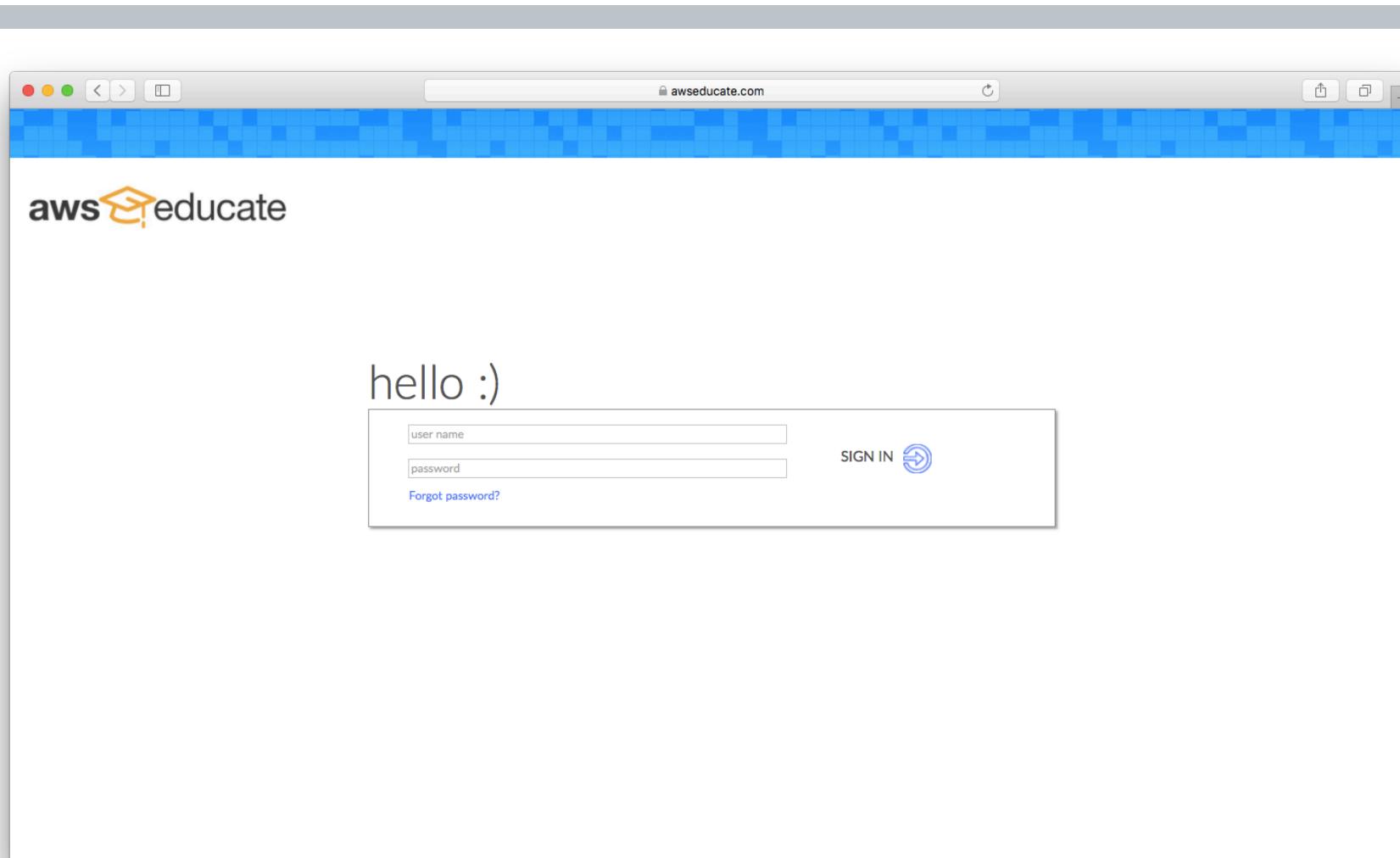
- ¿Qué es un servidor Web?
- Servidor Web Apache
- LAMP
- Instalar Apache con Ubuntu Linux
- **Instalar Apache con Amazon Linux**
- Instalar LAMP con Amazon Linux
- Resumen
- Lecturas recomendadas
- Referencias
- Trabajos

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Instalar Apache con Amazon Linux: <https://www.awseducate.com/signin/SiteLogin>

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Instalar Apache con Amazon Linux: **Go to your AWS Educate Starter Account**

The screenshot shows the AWS Educate website at awseducate.com. The page features a navigation bar with links for 'Logout' and 'Search'. Below the header, there's a section titled 'Welcome to AWS Educate' with a detailed welcome message. To the right, a large button labeled 'Go to your AWS Educate Starter Account' is circled in red. Below this button is a note about third-party terms of service. The main content area contains four sections: 'Explore Content' (with books icon), 'Skill up on AWS' (with a person icon), 'Events' (with speech bubbles icon), and 'Free Access to AWS' (with a cube icon). Each section has a brief description and a 'Learn more' or 'Get AWS Credits' link. At the bottom, there's a 'Messages and Alerts' section.

Welcome to AWS Educate

Welcome to AWS Educate, Amazon's global initiative to provide students and educators with the resources needed to greatly accelerate cloud-related learning and help students prepare for a cloud-enabled workplace! AWS Educate provides four pillars of grant-based support—content on the Cloud contributed by AWS and top educators; training materials to help you skill up on AWS; collaboration tools such as an events page; and credits to access AWS services for free. You should have received AWS credits when you signed up; you can try out the skill up resources from AWS including free labs on services such as EC2, S3, and others, and collaborate with other students at online and in-person events. We'll continue to roll out features to help you dive deep into the cloud.

Go to your AWS Educate Starter Account

Note: Clicking this button will take you to a third party site managed by AWS, Inc. ("Third Party Servicer"). By clicking this button, you agree to the AWS Educate terms of service, your use of the AWS Educate Starter Account is governed by the Third Party Servicer's terms, including its Privacy Policy. AWS assumes no responsibility or liability and makes no representations or warranties regarding services provided by a Third Party Servicer.

Explore Content

Discover "open source" course content contributed by educators and AWS.

[Find content now »](#)

Skill up on AWS

Find everything you need to ramp up on AWS.

[Learn more »](#)

Events

Discover events where you can connect with other AWS users.

[Find events »](#)

Free Access to AWS

Free access to AWS for in-classroom use.

[Get AWS Credits »](#)

Messages and Alerts

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Instalar Apache con Amazon Linux: AWS Educate Starter Account

The screenshot shows the AWS Educate Starter Account 30 dashboard. At the top, it displays '524160m Acceso · 524160m finalización'. Below this, there are buttons for 'Calificación de laboratorio' and 'Detalles de Laboratorio'. The main area is titled 'AWS Educate Starter Account 30' and contains a message 'Hit the Start Lab button to get started!'. On the left, under 'CONNECTION DETAILS', there is a yellow button labeled 'ABRIR CONSOLA' which is circled in red. Below this button, there are fields for 'Clave de Acceso Id' (AKIAJTB7NHJFVEQN3CXA) and 'Clave de Acceso Secreta' (Zaj0Ge0SjF+fKN2B7yMNS96RbeLRz061v). A warning message at the bottom left says: 'Warning: Do not transmit data into the AWS Console that is not related to Qwiklabs or the lab you are taking.' A question mark icon is located in the bottom right corner of the dashboard.

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Instalar Apache con Amazon Linux: **Services**

The screenshot shows the AWS Management Console interface. The top navigation bar has tabs for 'Services' (which is circled in red) and 'Resource Groups'. Below the navigation, there's a search bar and a 'Helpful tips' section with links to 'Manage your costs' and 'Create an organization'. The main content area is divided into several sections:

- AWS services:** A search bar and a list of recently visited services, with 'EC2' currently selected.
- Build a solution:** A section titled 'Build a solution' with simple wizards and automated workflows. It includes icons and descriptions for:
 - Launch a virtual machine (With EC2 or Lightsail, ~1-2 minutes)
 - Build a web app (With Elastic Beanstalk, ~6 minutes)
 - Host a static website (With S3, CloudFront, Route 53, ~5 minutes)
 - Connect an IoT device (With AWS IoT, ~5 minutes)
 - Start a development project (With CodeStar, ~5 minutes)
 - Register a domain (With Route 53, ~3 minutes)
- Learn to build:** A section titled 'Learn to build' with step-by-step guides, labs, and videos. It includes buttons for 'Websites', 'DevOps', and 'Backup and recovery'.
- Explore AWS:** A section titled 'Explore AWS' with links to 'Apache MXNet' (Get started with the most scalable framework for deep learning in the cloud), 'Build Applications with AWS Lambda' (Run and scale code for Python, Node.js, Java, or C# without provisioning or managing servers), and 'Amazon DynamoDB' (Fast and flexible NoSQL database service for any scale).

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Instalar Apache con Amazon Linux: Se utiliza EC2

The screenshot shows the AWS Management Console with the URL us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2. The top navigation bar includes tabs for Hotmail, Outlook, El Tiempo, EC2 Management Cons, and a plus sign for new tabs. The main menu bar has options for Services, Resource Groups, and a search bar. On the left, a sidebar lists History, EC2, Console Home, and Billing. The main content area displays various AWS services categorized into groups: Compute (with EC2 circled in red), Developer Tools, Analytics, Application Services, Management Tools, Artificial Intelligence, and Business Productivity. Each group lists specific services like CodeCommit, CodeBuild, CloudWatch, etc.

Hotmail, Outlook, El Tiempo | EC2 Management Cons +

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2

Services | Resource Groups | Group

History

EC2

Console Home

Billing

Compute

EC2

EC2 Container Service

Lightsail

Elastic Beanstalk

Lambda

Batch

Storage

S3

EFS

Glacier

Storage Gateway

Database

Developer Tools

CodeCommit

CodeBuild

CodeDeploy

CodePipeline

X-Ray

Management Tools

CloudWatch

CloudFormation

CloudTrail

Config

OpsWorks

Service Catalog

Trusted Advisor

Analytics

Athena

EMR

CloudSearch

Elasticsearch Service

Kinesis

Data Pipeline

QuickSight

Artificial Intelligence

Lex

Polly

Rekognition

Machine Learning

Application Services

Step Functions

SWF

API Gateway

Elastic Transcoder

Messaging

Simple Queue Service

Simple Notification Service

SES

Business Productivity

WorkDocs

WorkMail

Amazon Chime

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Instalar Apache con Amazon Linux. Paso 1: Lanzamiento de una instancia de Amazon EC2

The screenshot shows the AWS Management Console homepage. At the top, there are three browser tabs: 'Recibidos (110) - cuevalo', 'Recibidos (23.116) - cuev...', and 'AWS Management Conso...'. The main navigation bar includes 'Services' (selected), 'Resource Groups', and other options. The user is signed in as 'Juan Manuel Cueva Lovelle' from 'Ireland'.

AWS services

Find a service by name (for example, EC2, S3, Elastic Beanstalk).

Recently visited services:

- EC2
- All services

Build a solution

Get started with simple wizards and automated workflows.

 Launch a virtual machine With EC2 ~1 minute	 Build a web app With Elastic Beanstalk ~6 minutes	 Deploy a serverless microservice With Lambda, API Gateway ~2 minutes
 Host a static website With S3, CloudFront, Route 53 ~5 minutes	 Create a backend for your mobile app With Mobile Hub ~5 minutes	 Register a domain With Route 53 ~3 minutes

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Instalar Apache con Amazon Linux. Paso 1: Lanzamiento de una instancia de Amazon EC2

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The screenshot shows the AWS EC2 Management Console interface. The top navigation bar includes tabs for 'Recibidos (110) - cuevalo', 'Recibidos (23.116) - cuev', and 'EC2 Management Console'. The main content area displays the 'Resources' section, which lists the following Amazon EC2 resources in the EU West (Ireland) region:

Category	Count
Running Instances	0
Dedicated Hosts	0
Volumes	2
Key Pairs	2
Placement Groups	0
Elastic IPs	1
Snapshots	0
Load Balancers	0
Security Groups	3

A callout box in the center of the screen encourages users to try Amazon Lightsail for free. Below this, the 'Create Instance' section provides instructions for launching a virtual server. The 'Launch Instance' button is prominently displayed. A note at the bottom of this section states that instances will launch in the EU West (Ireland) region.

On the left sidebar, there are several collapsed sections: 'EC2 Dashboard', 'Events', 'Tags', 'Reports', 'Limits', 'INSTANCES' (which is expanded to show 'Instances', 'Spot Requests', 'Reserved Instances', 'Scheduled Instances', and 'Dedicated Hosts'), 'IMAGES' (which is expanded to show 'AMIs' and 'Bundle Tasks'), 'ELASTIC BLOCK STORE' (which is expanded to show 'Volumes' and 'Snapshots'), and 'NETWORK & SECURITY' (which is expanded to show 'Service Status').

The right sidebar contains sections for 'Account Attributes' (listing 'Supported Platforms' as VPC and 'Default VPC' as vpc-a1d5a5c4), 'Resource ID length management', 'Additional Information' (links to 'Getting Started Guide', 'Documentation', 'All EC2 Resources', 'Forums', 'Pricing', and 'Contact Us'), and 'AWS Marketplace' (describing how to find software trial products).

The footer of the page includes the URL 'https://eu-west-1.console.aws.amazon.com/console/home?region=eu-west-1', copyright information '© 2008 - 2017, Amazon Web Services, Inc. or its affiliates. All rights reserved.', and links to 'Privacy Policy' and 'Terms of Use'.

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Instalar Apache con Amazon Linux. Paso 1: Elegir Amazon Linux

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The screenshot shows the AWS EC2 Management Console interface. At the top, there are three tabs: 'Recibidos (110) - cuevalo', 'Recibidos (23.116) - cuev...', and 'EC2 Management Conso...'. Below the tabs, the URL is https://eu-west-1.console.aws.amazon.com/ec2/v2/home?region=eu-west-1#LaunchInstanceWizard:.

The main navigation bar includes 'Services' (selected), 'Resource Groups', a search bar, and user information: Juan Manuel Cueva Lovelle, Ireland, Support.

The wizard steps are: 1. Choose AMI (selected), 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Add Tags, 6. Configure Security Group, 7. Review.

Step 1: Choose an Amazon Machine Image (AMI)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Quick Start

	AMIs	Region	Action
My AMIs			
AWS Marketplace			
Community AMIs			

Free tier only (i)

Amazon Linux AMI 2017.03.0 (HVM), SSD Volume Type - ami-e5083683

Amazon Linux Free tier eligible The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.

Root device type: ebs Virtualization type: hvm

Select

Red Hat Enterprise Linux 7.3 (HVM), SSD Volume Type - ami-02ace471

Red Hat Free tier eligible Red Hat Enterprise Linux version 7.3 (HVM), EBS General Purpose (SSD) Volume Type

Root device type: ebs Virtualization type: hvm

Select

SUSE Linux Enterprise Server 12 SP2 (HVM), SSD Volume Type - ami-9186a1e2

SUSE Linux Free tier eligible SUSE Linux Enterprise Server 12 Service Pack 2 (HVM), EBS General Purpose (SSD) Volume Type. Public Cloud, Advanced Systems Management, Web and Scripting, and Legacy modules enabled.

Select

1 to 31 of 31 AMIs

https://eu-west-1.console.aws.amazon.com/console/home?region=eu-west-1

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Instalar Apache con Amazon Linux. Paso 2: Elegir el tipo de instancia

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The screenshot shows the AWS EC2 Management Console interface. The top navigation bar includes tabs for 'Recibidos (110) - cuevalo', 'Recibidos (23.116) - cuev...', and 'EC2 Management Conso...'. The main title is 'Instalar Apache con Amazon Linux. Paso 2: Elegir el tipo de instancia'. Below the title, the EC2 Management Console logo is visible. The top menu bar has links for 'Services', 'Resource Groups', and other account information. A progress bar at the top indicates 'Step 2: Choose an Instance Type' is active. The main content area displays a table of instance types. The table has columns for Family, Type, vCPUs, Memory (GiB), Instance Storage (GB), EBS-Optimized Available, Network Performance, and IPv6 Support. The 't2.micro' instance type is selected, highlighted with a green background and labeled 'Free tier eligible'. At the bottom of the table are buttons for 'Cancel', 'Previous', 'Review and Launch' (which is highlighted in blue), and 'Next: Configure Instance Details'.

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)								
	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro <small>Free tier eligible</small>	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes

Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 3: Configurar la instancia

The screenshot shows the AWS EC2 Management Console interface. The URL in the address bar is <https://eu-west-1.console.aws.amazon.com/ec2/v2/home?region=eu-west-1#LaunchInstanceWizard>. The top navigation bar includes tabs for 'Services', 'Resource Groups', and user information ('Juan Manuel Cueva Lovelle', 'Ireland', 'Support'). Below the navigation, a progress bar indicates 'Step 3: Configure Instance Details' is active, along with other steps: '1. Choose AMI', '2. Choose Instance Type', '4. Add Storage', '5. Add Tags', '6. Configure Security Group', and '7. Review'. The main content area displays configuration options for an instance:

- Network:** vpc-a1d5a5c4 (default) | [Create new VPC](#)
- Subnet:** No preference (default subnet in any Availability Zone) | [Create new subnet](#)
- Auto-assign Public IP:** Use subnet setting (Enable)
- IAM role:** None | [Create new IAM role](#)
- Shutdown behavior:** Stop
- Enable termination protection:** Protect against accidental termination
- Monitoring:** Enable CloudWatch detailed monitoring
Additional charges apply.
- Tenancy:** Shared - Run a shared hardware instance
Additional charges will apply for dedicated tenancy.

At the bottom, there are buttons for 'Cancel', 'Previous', 'Review and Launch' (which is highlighted in blue), and 'Next: Add Storage'.

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Instalar Apache con Amazon Linux. Paso 4: Añadir almacenamiento

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The screenshot shows the AWS EC2 Management Console interface. At the top, there are three tabs: 'Recibidos (109) - cuevalo', 'Recibidos (23.116) - cuev...', and 'EC2 Management Console'. Below the tabs, the URL is https://eu-west-1.console.aws.amazon.com/ec2/v2/home?region=eu-west-1#LaunchInstanceWizard:.

The main navigation bar includes 'Services' (selected), 'Resource Groups', and other options like 'Juan Manuel Cueva Lovelle', 'Ireland', and 'Support'.

The wizard steps are: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage (highlighted in orange), 5. Add Tags, 6. Configure Security Group, 7. Review.

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

The table shows the current storage configuration:

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encrypted
Root	/dev/xvda	snap-070e08749c497ec2e	8	General Purpose SSD (GP2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

Buttons at the bottom: Cancel, Previous, **Review and Launch** (highlighted in blue), Next: Add Tags.

Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 5: Añadir clave y etiqueta

The screenshot shows a browser window with three tabs: 'Recibidos (109) - cuevalo', 'Recibidos (23.116) - cuev...' (highlighted in red), and 'EC2 Management Console'. The main content area is the 'Launch Instance Wizard' at step 5: 'Add Tags'. The navigation bar includes 'Services', 'Resource Groups', and tabs for '1. Choose AMI' through '7. Review'. The '5. Add Tags' tab is active.

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.

A copy of a tag can be applied to volumes, instances or both.

Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key	(127 characters maximum)	Value	(255 characters maximum)	Instances	Volumes	X
MiClave		MaquinaLinux		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X

Add another tag (Up to 50 tags maximum)

Cancel Previous Review and Launch Next: Configure Security Group

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Instalar Apache con Amazon Linux. Paso 6: Configuración del grupo de seguridad

The screenshot shows the AWS EC2 Management Console interface for launching a new instance. The top navigation bar includes tabs for Services, Resource Groups, and a user profile. Below the navigation is a breadcrumb trail: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Add Tags, 6. Configure Security Group (which is highlighted), and 7. Review.

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: launch-wizard-3

Description: launch-wizard-3 created 2017-04-13T18:59:18.603-05:00

Type	Protocol	Port Range	Source
SSH	TCP	22	Custom 0.0.0.0/0
HTTP	TCP	80	Custom 0.0.0.0/0, ::/0

Add Rule

At the bottom right are buttons for **Cancel**, **Previous**, and **Review and Launch**.

Feedback

English

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Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 7: Revisión de la instancia y lanzamiento

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The screenshot shows the AWS EC2 Management Console interface. At the top, there are three tabs: 'Recibidos (109) - cuevalo', 'Recibidos (23.116) - cuev', and 'EC2 Management Console'. The URL in the address bar is <https://eu-west-1.console.aws.amazon.com/ec2/v2/home?region=eu-west-1#LaunchInstanceWizard>. The top navigation bar includes 'Services', 'Resource Groups', a user dropdown for 'Juan Manuel Cueva Lovelle', and links for 'Ireland' and 'Support'.

The main content area shows the 'Step 7: Review Instance Launch' page. The wizard steps are listed at the top: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Add Tags, 6. Configure Security Group, and 7. Review. Step 7 is highlighted with an orange underline.

The configuration details for the instance are displayed:

t2.micro	Variable	1	1	EBS only	-	Low to Moderate
----------	----------	---	---	----------	---	-----------------

Below this, the 'Security Groups' section is expanded, showing:

Type	Protocol	Port Range	Source
SSH	TCP	22	201.219.222.70/32

Other sections shown include 'Instance Details', 'Storage', and 'Tags', each with an 'Edit' link. At the bottom right are 'Cancel', 'Previous', and a large blue 'Launch' button.

At the very bottom of the page, there are links for 'Feedback', 'English', 'Privacy Policy', and 'Terms of Use'.

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Instalar Apache con Amazon Linux. Paso 8: Seleccionar clave y **descargarla**

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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

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

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Instalar Apache con Amazon Linux. Paso 9: Estado del lanzamiento

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The screenshot shows the AWS EC2 Management Console interface. At the top, there are three tabs: 'Recibidos (109) - cuevalo', 'Recibidos (23.116) - cuev', and 'EC2 Management Conso'. The main content area is titled 'Launch Status' and displays a green notification box: 'Your instances are now launching. The following instance launches have been initiated: i-038888637e06620c1' with a link to 'View launch log'. Below this, there is a blue info box: 'Get notified of estimated charges. Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier)'. At the bottom, there is a section titled 'How to connect to your instances' with instructions and links to 'View Instances' and 'Find out how to connect to your instances'. A dropdown menu is open, showing 'Here are some helpful resources to get you started'. The footer contains links for 'Feedback', 'English', '© 2008 - 2017, Amazon Web Services, Inc. or its affiliates. All rights reserved.', 'Privacy Policy', 'Terms of Use', and a file named 'cuevalovelinux.pem'.



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Instalar Apache con Amazon Linux. Paso 10: Instancias

The screenshot shows the AWS EC2 Management Console interface. The left sidebar navigation bar includes links for EC2 Dashboard, Events, Tags, Reports, Limits, INSTANCES (with Instances selected), SPOT REQUESTS, Reserved Instances, Scheduled Instances, Dedicated Hosts, IMAGES (AMIs and Bundle Tasks), and ELASTIC BLOCK STORE (Volumes and Snapshots). The main content area displays a table of instances. A search bar at the top of the table results in one result: "MiClave : MaquinaLinux". The table columns are Name, Instance ID, Instance Type, Availability Zone, Instance State, Status Checks, Alarm Status, and Public DNS (IPv4). The instance listed is "i-038888637e06620c1" of type "t2.micro" in "eu-west-1c", currently "running" with 2/2 status checks passing. Its Public DNS is "ec2-34-253-121-46.eu-west-1.compute.amazonaws.com". Below the table, detailed information for this instance is shown: Instance ID "i-038888637e06620c1", Public DNS "ec2-34-253-121-46.eu-west-1.compute.amazonaws.com", and a tabbed view showing Description, Status Checks, Monitoring, and Tags. The "Description" tab is active. At the bottom of the page, the URL is "https://eu-west-1.console.aws.amazon.com/console/home?region=eu-west-1", a copyright notice "© 2008 - 2017, Amazon Web Services, Inc. or its affiliates. All rights reserved.", and links for Privacy Policy and Terms of Use.

Recibidos (109) - cuevalo Recibidos (23.116) - cuev EC2 Management Consol

Es seguro | https://eu-west-1.console.aws.amazon.com/ec2/v2/home?region=eu-west-1#Instances>tag:MiClave=MaquinaLinux;sort=instanceId

Services Resource Groups Actions

EC2 Dashboard

Events

Tags

Reports

Limits

INSTANCES

Instances

Spot Requests

Reserved Instances

Scheduled Instances

Dedicated Hosts

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Volumes

Snapshots

Launch Instance Connect Actions

MiClave : MaquinaLinux Add filter

?

1 to 1 of 1

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)
i-038888637e06620c1	t2.micro	eu-west-1c	running	2/2 checks ...	None	ec2-34-253-121-46.eu-west-1.compute.amazonaws.com	

Instance: i-038888637e06620c1 Public DNS: ec2-34-253-121-46.eu-west-1.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID: i-038888637e06620c1 Public DNS (IPv4): ec2-34-253-121-46.eu-west-1.compute.amazonaws.com

https://eu-west-1.console.aws.amazon.com/console/home?region=eu-west-1

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Mostrar todo

Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 11: Conexión con SSH y SFTP. **Configurar bitvise**

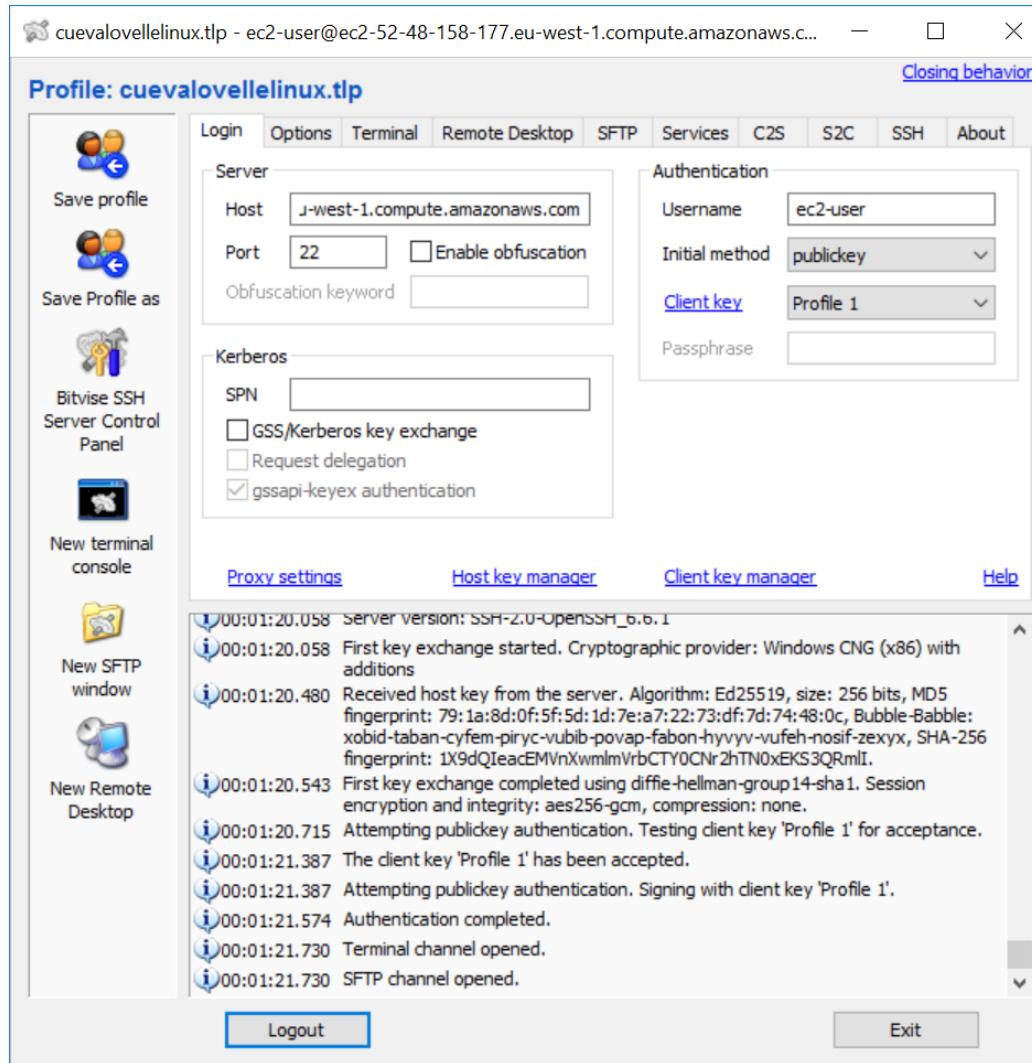
- **Host:** ec2-52-48-158-177.eu-west-1.compute.amazonaws.com
- **Port:** 22
- **Username:** ec2-user
 - En Amazon Linux y Red Hat Enterprise Linux (RHEL)
- **Username:** ubuntu
 - En Ubuntu Linux
- **Initial method:** publickey
- **Client key manager > import > miClave.pem**
- **Client key:** Global1 o Profile1

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Instalar Apache con Amazon Linux. Paso 11: Conexión con SSH y SFTP: **Conectar con bitvise**

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Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 12: Conexión con SSH y SFTP. **Terminal SSH**

```
[cuevalovelinux.tlp - ec2-user@ec2-52-48-158-177.eu-west-1.compute.amazonaws.com:22 - Bitvise xterm]
Last login: Tue Apr 11 05:08:24 2017 from 201.219.222.70
 _|_|_(_|_|_) Amazon Linux AMI
 _|_\_|_|_|

https://aws.amazon.com/amazon-linux-ami/2017.03-release-notes/
2 package(s) needed for security, out of 2 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-25-244 ~]$
```

Software y estándares para la Web

Instalar apache con Amazon Linux. Paso 13: **Actualizar Amazon Linux**

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```
[cuevalovelinux.tlp - ec2-user@ec2-52-209-72-165.eu-west-1.compute.amazonaws.com:22 - Bitvise xterm - ec2-user@ip-172-31-29-201:~] - □ X
[cuevalovelinux.tlp - ec2-user@ec2-52-209-72-165.eu-west-1.compute.amazonaws.com:22 - Bitvise xterm - ec2-user@ip-172-31-29-201:~]$ sudo yum update -y
Loaded plugins: priorities, update-motd, upgrade-helper
No packages marked for update
[cuevalovelinux.tlp - ec2-user@ec2-52-209-72-165.eu-west-1.compute.amazonaws.com:22 - Bitvise xterm - ec2-user@ip-172-31-29-201:~]$
```

Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 14: Instalar **Apache httpd**

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```
[cuevalovelinux.tlp - ec2-user@ec2-52-209-72-165.eu-west-1.compute.amazonaws.com:22 - Bitvise xterm - ec2-user@ip-172-31-29-201:~ -] [ec2-user@ip-172-31-29-201 ~]$ sudo yum install httpd
```

Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 15: Comprobar la situación de Apache httpd

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[cuevalovelinux.tlp - ec2-user@ec2-52-209-72-165.eu-west-1.compute.amazonaws.com:22 - Bitvise xterm - ec2-user@ip-172-31-29-201:~] - □ ×

```
[ec2-user@ip-172-31-29-201 ~]$ sudo service httpd status
httpd is stopped
[ec2-user@ip-172-31-29-201 ~]$ █
```

Software y estándares para la Web

Instalar un servidor Web con Amazon Linux. Paso 16: Arrancar **Apache httpd**

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```
[cuevalovelinux.tlp - ec2-user@ec2-52-209-72-165.eu-west-1.compute.amazonaws.com:22 - Bitvise xterm - ec2-user@ip-172-31-29-201:~] - □ ×  
[ec2-user@ip-172-31-29-201 ~]$ sudo service httpd start  
Starting httpd: [ OK ]  
[ec2-user@ip-172-31-29-201 ~]$ █
```

Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 17: Comprobar Apache httpd



If you are a member of the general public:

The fact that you are seeing this page indicates that the website you just visited is either experiencing problems, or is undergoing routine maintenance.

If you would like to let the administrators of this website know that you've seen this page instead of the page you expected, you should send them e-mail. In general, mail sent to the name "webmaster" and directed to the website's domain should reach the appropriate person.

For example, if you experienced problems while visiting www.example.com, you should send e-mail to "webmaster@example.com".

For information on Amazon Linux AMI , please visit the [Amazon AWS website](#).

If you are the website administrator:

You may now add content to the directory /var/www/html/. Note that until you do so, people visiting your website will see this page, and not your content. To prevent this page from ever being used, follow the instructions in the file /etc/httpd/conf.d/welcome.conf.

You are free to use the image below on web sites powered by the Apache HTTP Server:



Software y estándares para la Web

Instalar apache con Amazon Linux. Paso 18. Carpeta *Apache document root*

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- El servidor Apache **httpd** sirve archivos que se almacenan en el directorio denominado “*Apache document root*” cuyo propietario por defecto es el **root**
- En el Amazon Linux la carpeta ”*Apache document root*” es **/var/www/html**

```
[ec2-user ~]$ ls -l /var/www
total 16
drwxr-xr-x 2 root root 4096 Jul 12 01:00 cgi-bin
drwxr-xr-x 3 root root 4096 Aug  7 00:02 error
drwxr-xr-x 2 root root 4096 Jan   6 2012 html
drwxr-xr-x 3 root root 4096 Aug  7 00:02 icons
```

Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 19: **Modificar permisos y propietarios**

- Para permitir al usuario **ec2-user** manipular archivos de la carpeta “*Apache document root*”, es necesario modificar los propietarios y los permisos de esta carpeta
- Hay varias formas de hacerlo
- Una de ellas es añadir el grupo **www** a su instancia

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```
[ec2-user ~] $ sudo groupadd www
```

- Dar al grupo www la propiedad y permisos de escritura del directorio /var/www
- Cualquier miembro del grupo podrá añadir, borrar y modificar archivos en el servidor web

```
[ec2-user ~] $ sudo usermod -a -G www ec2-user
```

- Cerrar la terminal con

```
[ec2-user ~] $ exit
```

Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 20: **Reiniciar la terminal**

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- Iniciar una nueva terminal y ejecutar **groups** para comprobar los grupos existentes

```
cuevalovelinux.tlp - ec2-user@ec2-52-209-72-165.eu-west-1.compute.amazonaws.com:22 - Bitvise xterm - ec2-user@ip-172-31-29-201:~ - □ ×  
Last login: Tue Apr 18 01:17:15 2017 from 201.219.222.70  
  
_ _ | ( _ _ / ) Amazon Linux AMI  
_ _ \_ | _ |  
  
https://aws.amazon.com/amazon-linux-ami/2017.03-release-notes/  
[ec2-user@ip-172-31-29-201 ~]$ groups  
ec2-user wheel www  
[ec2-user@ip-172-31-29-201 ~]$ █
```

Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 21: **Cambiar permisos**

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- Se debe cambiar la propiedad de **/var/www** y dársela al grupo **www**

```
[ec2-user ~]$ sudo chown -R root:www /var/www
```

- Se deben cambiar los permisos del directorio **/var/www** y sus subdirectorios y añadir los permisos de escritura del grupo a los futuros subdirectorios que se creen

```
[ec2-user ~]$ sudo chmod 2775 /var/www
```

```
[ec2-user ~]$ find /var/www -type d -exec sudo chmod 2775 {} \;
```

- Se deben cambiar recursivamente los permisos de los archivos de **/var/www** y sus subdirectorios para añadir los permisos de escritura al grupo

```
[ec2-user ~]$ find /var/www -type f -exec sudo chmod 0664 {} \;
```

- Ahora el usuario **ec2-user** (y cualquiera de los futuros miembros del grupo **www**) puede añadir, borrar y editar los archivos del “Apache document root”

Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 22: **Crear el archivo index.html**

```
<!DOCTYPE html>
<html lang="es">
<head>
  <meta charset="UTF-8">
  <title>Saludo</title>
</head>
<body>
  <h1>¡Hola a todos!</h1>
</body>
</html>
```

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Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 23: Transferir el archivo **index.html** a la carpeta **/var/www/html**

The screenshot shows the Bitvise SFTP interface with two panes: Local files and Remote files.

Local files: C:\Users\Juan Manuel Cueva\Dropbox\Asignaturas\UDISTRITAL\ISOS\05-AWS

Name	Size	Type	Date Modified	Attributes
UbuntuMaquinaEstudiante.tlp	5.955	Bitvise SSH ...	13/04/2017 10:45	A
UbuntuMaquinaEstudiante.pem	1.692	Archivo PEM	13/04/2017 10:36	A
maquinaUbuntuEstudiante3.tlp	7.523	Bitvise SSH ...	13/04/2017 20:27	A
maquinaUbuntuEstudiante3.pem	1.696	Archivo PEM	13/04/2017 19:14	A
maquinaUbuntuEstudiante2.tlp	6.383	Bitvise SSH ...	13/04/2017 16:18	A
maquinaUbuntuEstudiante2.pem	1.692	Archivo PEM	13/04/2017 16:14	A
index.html	146	Archivo HT...	13/04/2017 20:08	A
cuevalovellelinux.tlp	6.166	Bitvise SSH ...	17/04/2017 20:16	A
cuevalovellelinux.pem	1.692	Archivo PEM	10/04/2017 22:04	A
cueva.pem	1.692	Archivo PEM	01/04/2017 18:14	A
cueva-oscar-ubuntu.tlp	4.650	Bitvise SSH ...	10/04/2017 23:15	A

Remote files: /var/www/html

Name	Size	Type	Date Modified	Permissions
index.html	146	Archivo HT...	13/04/2017 20:08	-rw-rw-r-

At the bottom, the status bar indicates "48 items uploaded".

Software y estándares para la Web

Instalar Apache con Amazon Linux. Paso 24: **Comprobar el funcionamiento**



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Esquema

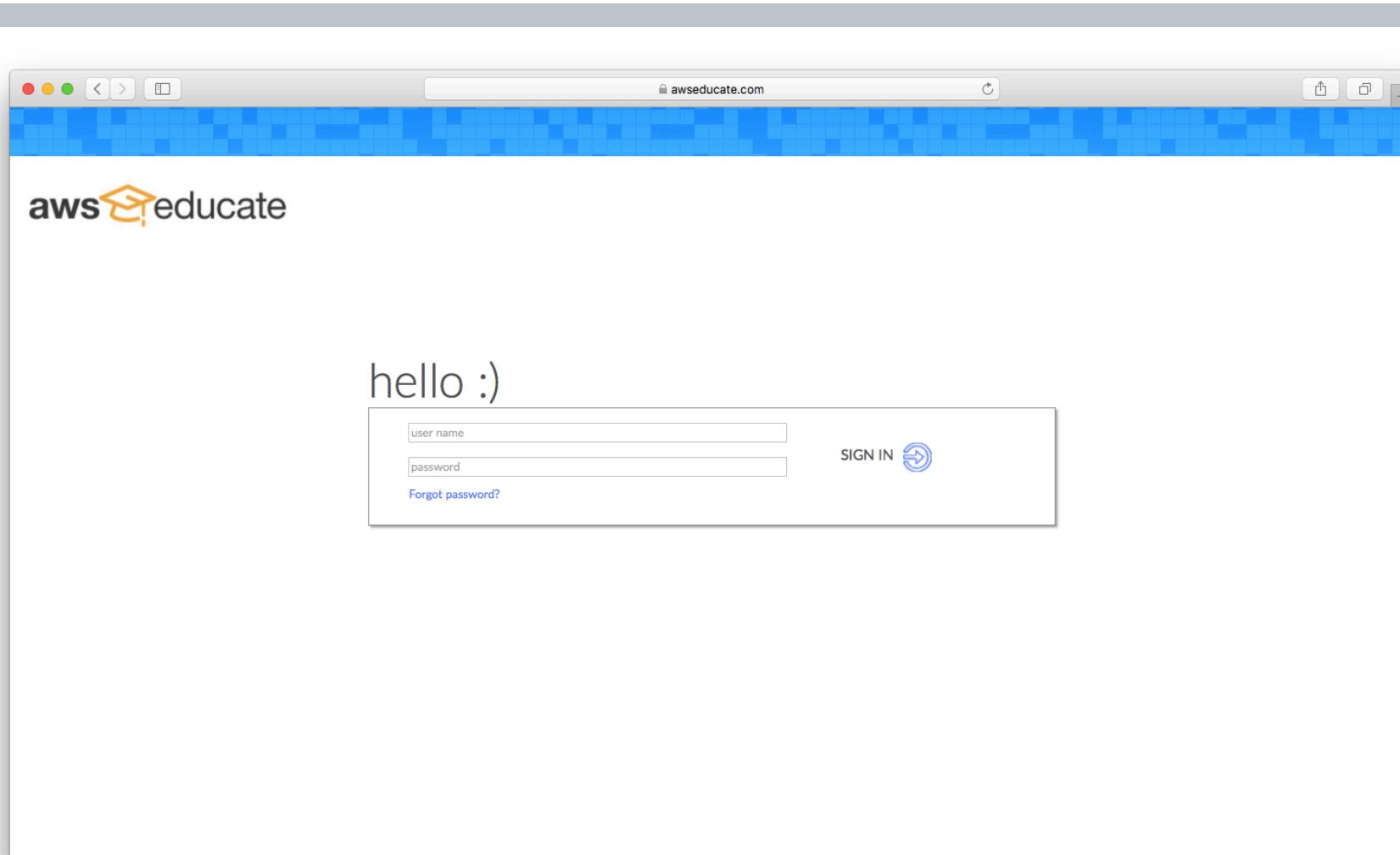
- ¿Qué es un servidor Web?
- Servidor Web Apache
- LAMP
- Instalar Apache con Ubuntu Linux
- Instalar Apache con Amazon Linux
- **Instalar LAMP con Amazon Linux**
- Resumen
- Lecturas recomendadas
- Referencias
- Trabajos

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Software y estándares para la Web

Instalar LAMP con Amazon Linux: <https://www.awseducate.com/signin/SiteLogin>

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Software y estándares para la Web

Instalar LAMP con Amazon Linux: **Go to your AWS Educate Starter Account**

The screenshot shows the AWS Educate website interface. At the top, there's a navigation bar with the AWS Educate logo, a search bar, and a 'Logout' button. Below the header, a main section titled 'Welcome to AWS Educate' contains a welcome message and details about the service's purpose and offerings. To the right of this text is a button labeled 'Go to your AWS Educate Starter Account', which is circled in red. Below this button is a note about third-party terms of service. Further down the page are four main sections: 'Explore Content' (with a book icon), 'Skill up on AWS' (with a person icon), 'Events' (with a speech bubble icon), and 'Free Access to AWS' (with a cube icon). Each section has a brief description and a 'Learn more' or 'Get AWS Credits' link. At the bottom of the page, there's a 'Messages and Alerts' section.

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Instalar LAMP con Amazon Linux: AWS Educate Starter Account

The screenshot shows the AWS Educate Starter Account 30 dashboard. At the top, it displays '524160m Acceso · 524160m finalización' with a 4-star rating, 'Calificación de laboratorio', and 'Detalles de Laboratorio'. On the right, it shows 'Running Lab', 'FIN DE LABORATORIO', '\$30.00', and '177 días'. Below this, a message says 'Hit the Start Lab button to get started!'. A yellow button labeled 'ABRIR CONSOLA' is highlighted with a red circle. To its left, there are fields for 'Clave de Acceso Id' (AKIAJTB7NHJFVEQN3CXA) and 'Clave de Acceso Secreta' (Zaj0Ge0SjF+fKN2B7yMNS96RbeLRz061v), each with a copy icon. A warning message at the bottom left states: 'Warning: Do not transmit data into the AWS Console that is not related to Qwiklabs or the lab you are taking.' A question mark icon is in the bottom right corner.

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Instalar LAMP con Amazon Linux: **Services**

The screenshot shows the AWS Management Console interface. The top navigation bar includes tabs for 'Services' (which is circled in red), 'Resource Groups', and a search bar. The main content area is divided into several sections:

- AWS services:** A search bar and a list of recently visited services, with 'EC2' currently selected.
- Build a solution:** A section titled 'Build a solution' with simple wizards and automated workflows. It includes icons and descriptions for:
 - Launch a virtual machine (With EC2 or Lightsail, ~1-2 minutes)
 - Build a web app (With Elastic Beanstalk, ~6 minutes)
 - Host a static website (With S3, CloudFront, Route 53, ~5 minutes)
 - Connect an IoT device (With AWS IoT, ~5 minutes)
 - Start a development project (With CodeStar, ~5 minutes)
 - Register a domain (With Route 53, ~3 minutes)
- Learn to build:** A section titled 'Learn to build' where users can learn through step-by-step guides, labs, and videos. It includes buttons for 'Websites', 'DevOps', and 'Backup and recovery'.
- Helpful tips:** A section titled 'Helpful tips' with two items:
 - Manage your costs:** Describes getting real-time billing alerts based on cost and usage budgets. [Start now](#)
 - Create an organization:** Describes using AWS Organizations for policy-based management of multiple accounts. [Start now](#)
- Explore AWS:** A section titled 'Explore AWS' with links to 'Apache MXNet' and 'Build Applications with AWS Lambda'.

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Instalar LAMP con Amazon Linux: Se utiliza **EC2**

The screenshot shows the AWS Management Console interface. At the top, there are tabs for "Hotmail, Outlook, El Tiempo" and "EC2 Management Cons". Below the tabs, the URL is "us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2". The main navigation bar includes "Services" (selected), "Resource Groups", and other options like "Oregon" and "Support". On the left, a sidebar lists "History", "EC2" (selected), "Console Home", and "Billing". The main content area displays various AWS services categorized by color-coded icons. A red circle highlights the "Compute" section, specifically the "EC2" icon. Other visible categories include Storage (S3, EFS, Glacier, Storage Gateway), Database, Developer Tools (CodeCommit, CodeBuild, CodeDeploy, CodePipeline, X-Ray), Management Tools (CloudWatch, CloudFormation, CloudTrail, Config, OpsWorks, Service Catalog, Trusted Advisor), Analytics (Athena, EMR, CloudSearch, Elasticsearch Service, Kinesis, Data Pipeline, QuickSight), Artificial Intelligence (Lex, Polly, Rekognition, Machine Learning), Messaging (Simple Queue Service, Simple Notification Service, SES), and Business Productivity (WorkDocs, WorkMail, Amazon Chime). A search bar at the top right says "Search services".

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Instalar LAMP con Amazon Linux. Paso 1: **Lanzamiento de una instancia de Amazon EC2**

The screenshot shows the AWS Management Console homepage. At the top, there are three browser tabs: 'Recibidos (110) - cuevalo', 'Recibidos (23.116) - cuev...', and 'AWS Management Conso...'. The main navigation bar includes 'Services' (selected), 'Resource Groups', and other options. The user is Juan Manuel Cueva Lovelle, located in Ireland, with support links.

AWS services

Find a service by name (for example, EC2, S3, Elastic Beanstalk).

- Recently visited services
 - EC2
- All services

Build a solution

Get started with simple wizards and automated workflows.

Launch a virtual machine With EC2 ~1 minute	Build a web app With Elastic Beanstalk ~6 minutes	Deploy a serverless microservice With Lambda, API Gateway ~2 minutes
Host a static website With S3, CloudFront, Route 53 ~5 minutes	Create a backend for your mobile app With Mobile Hub ~5 minutes	Register a domain With Route 53 ~3 minutes

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Helpful tips



Manage your costs

Get real-time billing alerts based on your cost and usage budgets. [Start now](#)



Create an organization

Use AWS Organizations for policy-based management of multiple AWS accounts. [Start now](#)

What's new?

Announcing Amazon Chime

Learn how this new communication service makes it easy for employees to communicate with voice, video and chat. [Learn more](#)

Introducing Elastic Volumes for Amazon EBS

Learn how this new capability allows you to modify configurations of live volumes with a simple API call or a few console clicks.

Software y estándares para la Web

Instalar LAMP con Amazon Linux. Paso 1: **Lanzamiento de una instancia de Amazon EC2**

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The screenshot shows the AWS EC2 Management Console interface. The left sidebar contains navigation links for EC2 Dashboard, Events, Tags, Reports, Limits, Instances, Spot Requests, Reserved Instances, Scheduled Instances, Dedicated Hosts, AMIs, Bundle Tasks, Elastic Block Store, Volumes, Snapshots, and Network & Security. The main content area displays the following information:

- Resources:** You are using the following Amazon EC2 resources in the EU West (Ireland) region:
 - 0 Running Instances
 - 0 Dedicated Hosts
 - 2 Volumes
 - 2 Key Pairs
 - 0 Placement Groups
 - 1 Elastic IPs
 - 0 Snapshots
 - 0 Load Balancers
 - 3 Security Groups
- A callout box suggests trying Amazon Lightsail for free.
- Create Instance:** To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance. A blue "Launch Instance" button is present.
- Note:** Your instances will launch in the EU West (Ireland) region.
- Service Health:** Service Status: **EU West (Ireland):**
- Scheduled Events:**

At the bottom, the URL is https://eu-west-1.console.aws.amazon.com/console/home?region=eu-west-1, and the footer includes copyright information (© 2008 - 2017, Amazon Web Services, Inc. or its affiliates. All rights reserved.), Privacy Policy, and Terms of Use.

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Instalar LAMP con Amazon Linux. Paso 1: Elegir Amazon Linux

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Step 1: Choose an Amazon Machine Image (AMI)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Quick Start	
My AMIs	
Amazon Linux	Amazon Linux AMI 2017.03.0 (HVM), SSD Volume Type - ami-e5083683 The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages. Root device type: ebs Virtualization type: hvm
AWS Marketplace	
Community AMIs	
<input type="checkbox"/> Free tier only i	
Red Hat	Red Hat Enterprise Linux 7.3 (HVM), SSD Volume Type - ami-02ace471 Red Hat Enterprise Linux version 7.3 (HVM), EBS General Purpose (SSD) Volume Type Root device type: ebs Virtualization type: hvm
SUSE Linux	SUSE Linux Enterprise Server 12 SP2 (HVM), SSD Volume Type - ami-9186a1e2 SUSE Linux Enterprise Server 12 Service Pack 2 (HVM), EBS General Purpose (SSD) Volume Type. Public Cloud, Advanced Systems Management, Web and Scripting, and Legacy modules enabled.

Cancel and Exit

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

https://eu-west-1.console.aws.amazon.com/console/home?region=eu-west-1

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Instalar LAMP con Amazon Linux. Paso 2: Elegir el tipo de instancia

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The screenshot shows the AWS EC2 Management Console interface. The top navigation bar includes tabs for 'Recibidos (110) - cuevalo', 'Recibidos (23.116) - cuev...', and 'EC2 Management Conso...'. The main title is 'EC2 Management Conso...'. Below the title, there are buttons for 'Services' and 'Resource Groups'. The top menu bar also includes 'Juan Manuel Cueva Lovelle', 'Ireland', and 'Support'. A progress bar at the top indicates 'Step 2: Choose an Instance Type' is active, along with steps 1, 3, 4, 5, 6, and 7.

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance types ▾ Current generation ▾ Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)								
	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro <small>Free tier eligible</small>	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

<https://eu-west-1.console.aws.amazon.com/console/home?region=eu-west-1>

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Instalar LAMP con Amazon Linux. Paso 3: Configurar la instancia

The screenshot shows the AWS EC2 Management Console interface. The URL in the address bar is <https://eu-west-1.console.aws.amazon.com/ec2/v2/home?region=eu-west-1#LaunchInstanceWizard>. The top navigation bar includes tabs for Services, Resource Groups, and a user profile for Juan Manuel Cueva Lovelle. Below the navigation, a progress bar indicates Step 3: Configure Instance Details. The configuration form contains the following fields:

- Network:** vpc-a1d5a5c4 (default) - dropdown with options to Create new VPC.
- Subnet:** No preference (default subnet in any Availability Zone) - dropdown with options to Create new subnet.
- Auto-assign Public IP:** Use subnet setting (Enable) - dropdown.
- IAM role:** None - dropdown with options to Create new IAM role.
- Shutdown behavior:** Stop - dropdown.
- Enable termination protection:** Protect against accidental termination.
- Monitoring:** Enable CloudWatch detailed monitoring. Note: Additional charges apply.
- Tenancy:** Shared - Run a shared hardware instance - dropdown. Note: Additional charges will apply for dedicated tenancy.

At the bottom of the configuration section, there is a link to Advanced Details. At the very bottom of the page, there are links for Feedback, English, Copyright notice (© 2008 - 2017, Amazon Web Services, Inc. or its affiliates. All rights reserved.), Privacy Policy, and Terms of Use.

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Instalar LAMP con Amazon Linux. Paso 4: Añadir almacenamiento

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The screenshot shows the AWS EC2 Management Console interface. At the top, there are three tabs: 'Recibidos (109) - cuevalo', 'Recibidos (23.116) - cuev', and 'EC2 Management Console'. Below the tabs, the URL is https://eu-west-1.console.aws.amazon.com/ec2/v2/home?region=eu-west-1#LaunchInstanceWizard:.

The main navigation bar includes 'Services' (selected), 'Resource Groups', and other options like 'Juan Manuel Cueva Lovelle', 'Ireland', and 'Support'.

The wizard steps are: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage (highlighted in orange), 5. Add Tags, 6. Configure Security Group, 7. Review.

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

The table shows the current storage configuration:

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encrypted
Root	/dev/xvda	snap-070e08749c497ec2e	8	General Purpose SSD (GP2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

Buttons at the bottom: Cancel, Previous, **Review and Launch** (highlighted in blue), Next: Add Tags.

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Instalar LAMP con Amazon Linux. Paso 5: Añadir clave y etiqueta

The screenshot shows a browser window with three tabs: 'Recibidos (109) - cuevalo', 'Recibidos (23.116) - cuev...' (highlighted in red), and 'EC2 Management Console'. The main content area is the 'Launch Instance Wizard' at step 5: 'Add Tags'. The navigation bar above the steps includes 'Services', 'Resource Groups', and user information for 'Juan Manuel Cueva Lovelle'.

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.

A copy of a tag can be applied to volumes, instances or both.

Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key	(127 characters maximum)	Value	(255 characters maximum)	Instances	Volumes	X
MiClave		MaquinaLinux		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X

Add another tag (Up to 50 tags maximum)

Buttons at the bottom: Cancel, Previous, **Review and Launch**, Next: Configure Security Group

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Instalar LAMP con Amazon Linux. Paso 6: Configurar SSH, HTTP y HTTPS

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us-west-2.console.aws.amazon.com

AWS Educate, Student Educate Starter Account 30 | Qwiklabs + awseducate-run Educate Starter Account 30 | Qwiklabs + awseducate-run EC2 Management Console

Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

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: launch-wizard-4

Description: launch-wizard-4 created 2017-10-16T20:26:17.623+02:00

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

Add Rule

Warning
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.

Cancel Previous Review and Launch

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Instalar LAMP con Amazon Linux. Paso 7: Revisar la instancia antes de lanzarla

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The screenshot shows the AWS EC2 Management Console with the following details:

- Step 7: Review Instance Launch**
- AMI Details:** Amazon Linux AMI 2017.09.0 (HVM), SSD Volume Type - ami-e689729e. It is a Free tier eligible image.
- Instance Type:** t2.micro (ECUs: Variable, vCPUs: 1, Memory: 1 GiB). EBS-Optimized Available and Network Performance are listed.
- Security Groups:** Security group name: launch-wizard-4; Description: launch-wizard-4 created 2017-10-16T20:26:17.623+02:00.
- Launch Buttons:** Cancel, Previous, Launch (highlighted).

Software y estándares para la Web

Instalar LAMP con Amazon Linux. Paso 8: Crear y descargar la llave

The screenshot shows the AWS EC2 Management Console interface during the instance creation process. The top navigation bar includes tabs for Services, Resource Groups, and Support, along with account information (u099808 @ 3002-1504-0332) and region (Oregon). The main content area is titled "Step 7: Review Instance Launch".

AMI Details: Selected "Amazon Linux AMI 2017.09.0 (HVM)". It is a Free tier eligible instance. Root Device Type: ebs, Virtualization type: hvm.

Instance Type: Selected t2.micro.

Security Groups: Selected "launch-wizard-4" and "launch-wizard-4 cr".

Key Pair Selection Dialog: A modal window titled "Select an existing key pair or create a new key pair" is displayed. It contains instructions about key pairs, a note about selecting a key pair, and a form to either "Create a new key pair" or "Key pair name" (with the value "LAMPmaquinaAmazonLinux" entered). A "Download Key Pair" button is present. A callout message states: "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." At the bottom of the dialog are "Cancel" and "Launch Instances" buttons.

Software y estándares para la Web

Instalar LAMP con Amazon Linux. Paso 9: Situación de la instancia

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The screenshot shows the AWS Educate EC2 Management Console. At the top, the URL is `us-west-2.console.aws.amazon.com`. The navigation bar includes 'AWS Educate, Student', 'Services' (with 'Compute' selected), 'Resource Groups', and 'Support'. The top right shows the user 'uo99808 @ 3002-1504-0332' and location 'Oregon'. A green banner at the top says 'Your instances are now launching' with a link to 'View launch log'. Below it, a blue box contains a tip about getting notified of estimated charges. The main content area is titled 'Launch Status' and shows a message: 'Your instances are launching, and it may take a few minutes until they are in the running state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.' It also says 'Click [View Instances](#) to monitor your instances' status. A section titled 'Here are some helpful resources to get you started' lists links to 'How to connect to your Linux instance', 'Amazon EC2: User Guide', 'Learn about AWS Free Usage Tier', and 'Amazon EC2: Discussion Forum'. At the bottom, there are links for creating status check alarms, attaching EBS volumes, and managing security groups. The footer includes 'Feedback', 'English (US)', '© 2008 - 2017, Amazon Web Services, Inc. or its affiliates. All rights reserved.', 'Privacy Policy', and 'Terms of Use'.

Software y estándares para la Web

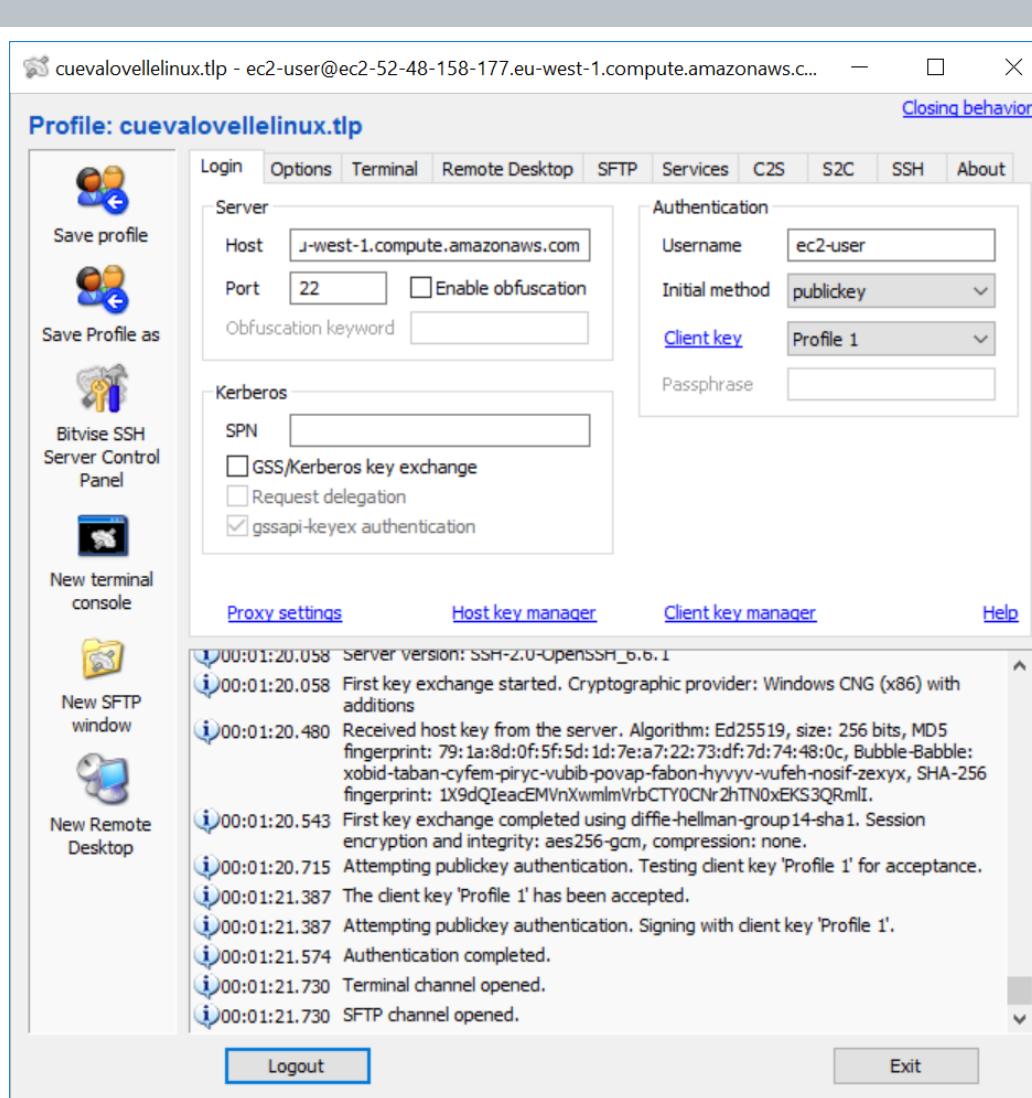
Instalar LAMP con Amazon Linux. Paso 10: Conexión con SSH y SFTP. **Configurar bitvise**

- **Host:** ec2-52-48-158-177.eu-west-1.compute.amazonaws.com
- **Port:** 22
- **Username:** ec2-user
 - En Amazon Linux y Red Hat Enterprise Linux (RHEL)
- **Initial method:** publickey
- **Client key manager > import > miClave.pem**
- **Client key:** Global1 o Profile1

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Instalar LAMP con Amazon Linux. Paso 11: Conexión con SSH y SFTP: **Coneectar con bitvise**



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Software y estándares para la Web

Instalar LAMP con Amazon Linux. Paso 12: Conexión con SSH y SFTP. **Terminal SSH**

```
[cuevalovelinux.tlp - ec2-user@ec2-52-48-158-177.eu-west-1.compute.amazonaws.com:22 - Bitvise xterm]
Last login: Tue Apr 11 05:08:24 2017 from 201.219.222.70
 _|_|_(_|_|_) Amazon Linux AMI
 _|_\_|_|_|

https://aws.amazon.com/amazon-linux-ami/2017.03-release-notes/
2 package(s) needed for security, out of 2 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-25-244 ~]$
```

Software y estándares para la Web

Instalar LAMP con Amazon Linux. Paso 13: **Actualizar Amazon Linux**

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```
[cuevalovelinux.tlp ~]# sudo yum update -y
Loaded plugins: priorities, update-motd, upgrade-helper
No packages marked for update
[cuevalovelinux.tlp ~]#
```

Software y estándares para la Web

Instalar LAMP con Amazon Linux. Paso 14: **Instalar Apache, MySQL y PHP**

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```
[ec2-user ~]$ sudo yum install -y httpd24 php70 mysql56-server php70-mysqlnd
```

Software y estándares para la Web

Instalar LAMP con Amazon Linux. Paso 15: Iniciar Apache

- Iniciar el servidor web Apache.

```
[ec2-user ~]$ sudo service httpd start
```

```
Starting httpd:
```

```
[ OK ]
```

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- Utilizar el comando **chkconfig** para configurar el servidor web Apache de forma que se inicie cada vez que arranque el sistema.

```
[ec2-user ~]$ sudo chkconfig httpd on
```

- El comando **chkconfig** no proporciona ningún mensaje de confirmación cuando se utiliza para habilitar correctamente un servicio.
- Puede verificar que **httpd** está activo ejecutando el siguiente comando:

```
[ec2-user ~]$ chkconfig --list httpd
```

```
httpd 0:off 1:off 2:on 3:on 4:on 5:on 6:off
```

- Aquí, **httpd** es **on** en los niveles de ejecución 2, 3, 4 y 5 (que es lo que desea ver).

Software y estándares para la Web

Instalar LAMP con Amazon Linux. Paso 16: **Configurar servidor Apache (a)**

- Apache **httpd** sirve archivos que se guardan en un directorio denominado raíz de documentos de Apache
- La raíz de documentos de Apache de Amazon Linux es **/var/www/html**, que es propiedad del directorio raíz de manera predeterminada

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```
[ec2-user ~]$ ls -l /var/www
total 16
drwxr-xr-x 2 root root 4096 Jul 12 01:00 cgi-bin
drwxr-xr-x 3 root root 4096 Aug 7 00:02 error
drwxr-xr-x 2 root root 4096 Jan 6 2012 html
drwxr-xr-x 3 root root 4096 Aug 7 00:02 icons
```

Software y estándares para la Web

Instalar LAMP con Amazon Linux. Paso 17: **Configurar servidor Apache (b)**

- Para permitir al usuario de ec2 manipular archivos de este directorio, debe modificar los propietarios y los permisos del directorio
- Existen muchas formas de realizar esta tarea
- Aquí se va a añadir el usuario ec2 al grupo apache, se va a dar al grupo apache la propiedad del directorio **/var/www** y se van a asignar permisos de escritura al grupo
- **Para establecer permisos de archivo**
 - Añadir el usuario (en este caso, el usuario ec2) al grupo apache.

```
[ec2-user ~]$ sudo usermod -a -G apache ec2-user
```

- **Importante**
 - Debe cerrar sesión y volver a iniciarla para actualizar el nuevo grupo. Puede utilizar el comando **exit** o cerrar la ventana del terminal.
 - Cierre sesión y luego vuelva a iniciarla para verificar si pertenece al grupo apache

```
[ec2-user ~]$ exit
```

Vuelva a conectarse a la instancia y luego ejecute el siguiente comando para verificar si pertenece al grupo apache.

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Software y estándares para la Web

Instalar LAMP con Amazon Linux. Paso 18: **Configurar servidor Apache (c)**

- Vuelva a conectarse a la instancia
- Ejecute el siguiente comando para verificar si pertenece al grupo apache.

```
[ec2-user ~]$ groups ec2-user wheel apache
```

- Cambie la propiedad de grupo de `/var/www` y su contenido al grupo apache.

```
[ec2-user ~]$ sudo chown -R ec2-user:apache /var/www
```

- Cambie los permisos del directorio `/var/www` y sus subdirectorios para agregar permisos de escritura de grupo y establecer el ID de grupo en futuros subdirectorios.

```
[ec2-user ~]$ sudo chmod 2775 /var/www
```

```
[ec2-user ~]$ find /var/www -type d -exec sudo chmod 2775 {} \;
```

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Instalar LAMP con Amazon Linux. Paso 19: **Configurar servidor Apache (d)**

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- Cambie recursivamente los permisos de archivo del directorio /var/www y sus subdirectorios para agregar permisos de escritura de grupo.

```
[ec2-user ~]$ find /var/www -type f -exec sudo chmod 0664 {} \;
```

- Ahora el usuario ec2 (y cualquier miembro del grupo apache) puede añadir, eliminar y editar archivos en la raíz de documentos de Apache. Ya está preparado para añadir contenido, como un sitio web estático o una aplicación PHP.

Software y estándares para la Web

Instalar LAMP con Amazon Linux. Paso 20: **Probar servidor Web LAMP (a)**

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- Si su servidor está instalado y en funcionamiento
 - y tiene establecidos correctamente los permisos de archivos,
 - la cuenta del usuario ec2 debería poder crear un archivo PHP simple en el directorio `/var/www/html` que estará disponible en Internet
-
- Crear un archivo PHP simple en la raíz de documentos de Apache.

```
[ec2-user ~]$ echo "<?php phpinfo(); ?>" > /var/www/html/phpinfo.php
```

- Si recibe el error "Permiso denegado" al intentar ejecutar este comando, intente cerrar sesión e iniciarla de nuevo para actualizar los permisos de grupo correctos
- En un navegador web, escriba la URL del archivo que acaba de crear. Esta URL es la dirección DNS pública de la instancia seguida de una barra diagonal y el nombre del archivo. Por ejemplo:

<http://my.public.dns.amazonaws.com/phpinfo.php>

Debería ver la página de información PHP.:

Software y estándares para la Web

Instalar LAMP con Amazon Linux. Paso 21: **Probar servidor Web LAMP (b)**

PHP Version 5.6.6



System	Linux ip-172-31-7-35 3.14.35-28.38.amzn1.x86_64 #1 SMP Wed Mar 11 22:50:37 UTC 2015 x86_64
Build Date	Mar 5 2015 23:26:53
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc
Loaded Configuration File	/etc/php.ini
Scan this dir for additional .ini files	/etc/php-5.6.d
Additional .ini files parsed	/etc/php-5.6.d/20-bz2.ini, /etc/php-5.6.d/20-calendar.ini, /etc/php-5.6.d/20-ctype.ini, /etc/php-5.6.d/20-curl.ini, /etc/php-5.6.d/20-dom.ini, /etc/php-5.6.d/20-exif.ini, /etc/php-5.6.d/20-fileinfo.ini, /etc/php-5.6.d/20-ftp.ini, /etc/php-5.6.d/20-gettext.ini, /etc/php-5.6.d/20-iconv.ini, /etc/php-5.6.d/20-mysqlind.ini, /etc/php-5.6.d/20-pdo.ini, /etc/php-5.6.d/20-phar.ini, /etc/php-5.6.d/20-posix.ini, /etc/php-5.6.d/20-shmop.ini, /etc/php-5.6.d/20-simplexml.ini, /etc/php-5.6.d/20-sockets.ini, /etc/php-5.6.d/20-sqlite3.ini, /etc/php-5.6.d/20-sysvmsg.ini, /etc/php-5.6.d/20-sysvsem.ini, /etc/php-5.6.d/20-sysvshm.ini, /etc/php-5.6.d/20-tokenizer.ini, /etc/php-5.6.d/20-xml.ini, /etc/php-5.6.d/20-xmlwriter.ini, /etc/php-5.6.d/20-xsl.ini, /etc/php-5.6.d/20-zip.ini, /etc/php-5.6.d/30-mysqli.ini, /etc/php-5.6.d/30-mysqli.ini, /etc/php-5.6.d/30-pdo_mysql.ini, /etc/php-5.6.d/30-pdo_sqlite.ini, /etc/php-5.6.d/30-wddx.ini, /etc/php-5.6.d/30-xmlreader.ini, /etc/php-5.6.d/40-json.ini, /etc/php-5.6.d/php.ini
PHP API	20131106
PHP Extension	20131226
Zend Extension	220131226
Zend Extension Build	API220131226,NTS
PHP Extension Build	API20131226,NTS

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Esquema

- ¿Qué es un servidor Web?
- Servidor Web Apache
- LAMP
- Instalar Apache con Ubuntu Linux
- Instalar Apache con Amazon Linux
- Instalar LAMP con Amazon Linux
- **Resumen**
- Lecturas recomendadas
- Referencias
- Trabajos

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Resumen

- La nube de **AWS** permite crear servidores Web con máquinas virtuales utilizando **EC2**
- La administración de los servidores se realiza de igual forma que en las máquinas físicas
- **Apache** es uno de los programas más utilizados como servidor Web
- Apache es usado principalmente para enviar **páginas web estáticas y dinámicas** en la World Wide Web
- **LAMP** es el acrónimo usado para describir un sistema de infraestructura de Internet que usa las siguientes herramientas:
 - **Linux**, como sistema operativo
 - **Apache**, como servidor web
 - **MySQL / MariaDB / MongoDB**, como gestores de bases de datos
 - **Perl, PHP, o Python**, como lenguajes de programación

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Esquema

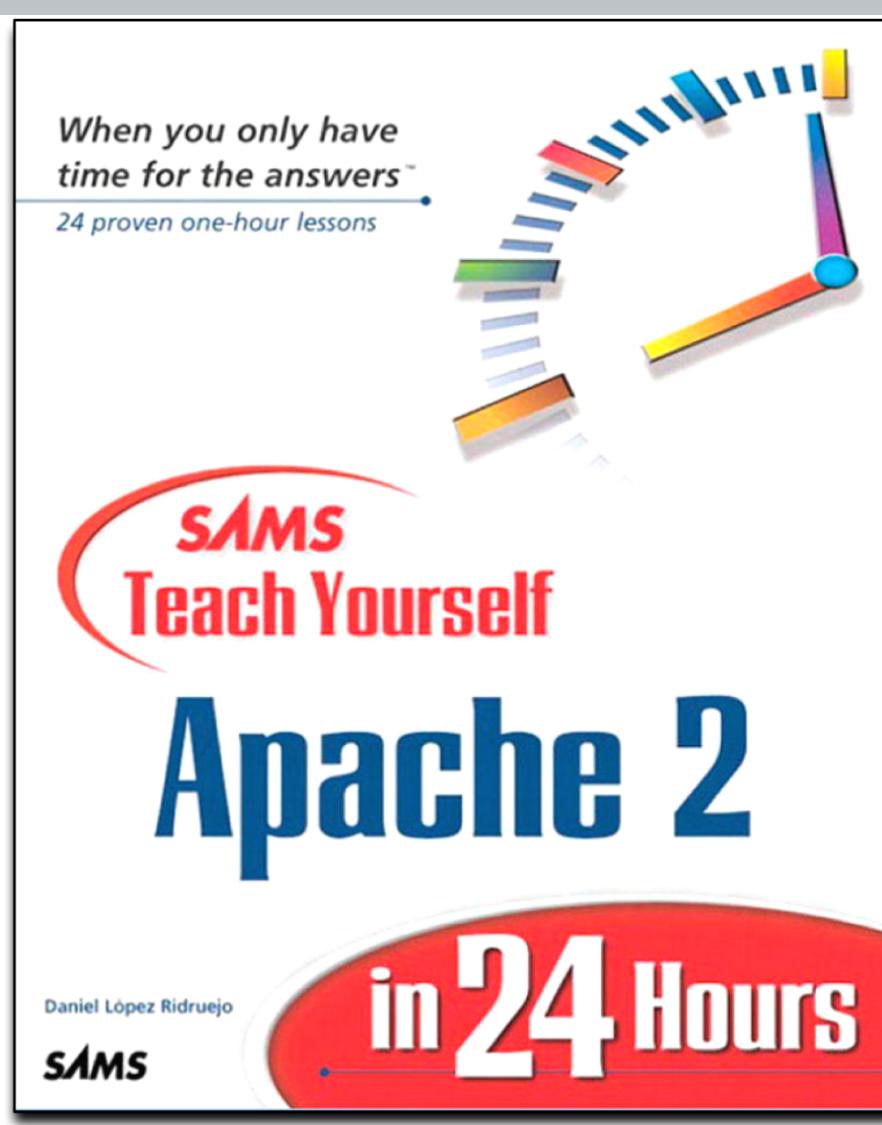
- ¿Qué es un servidor Web?
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- Resumen
- **Lecturas recomendadas**
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Software y estándares para la Web

Lecturas recomendadas (I)

- Daniel López Ridruejo
- “Apache 2 in 24 Hours”
- 2002, Sams

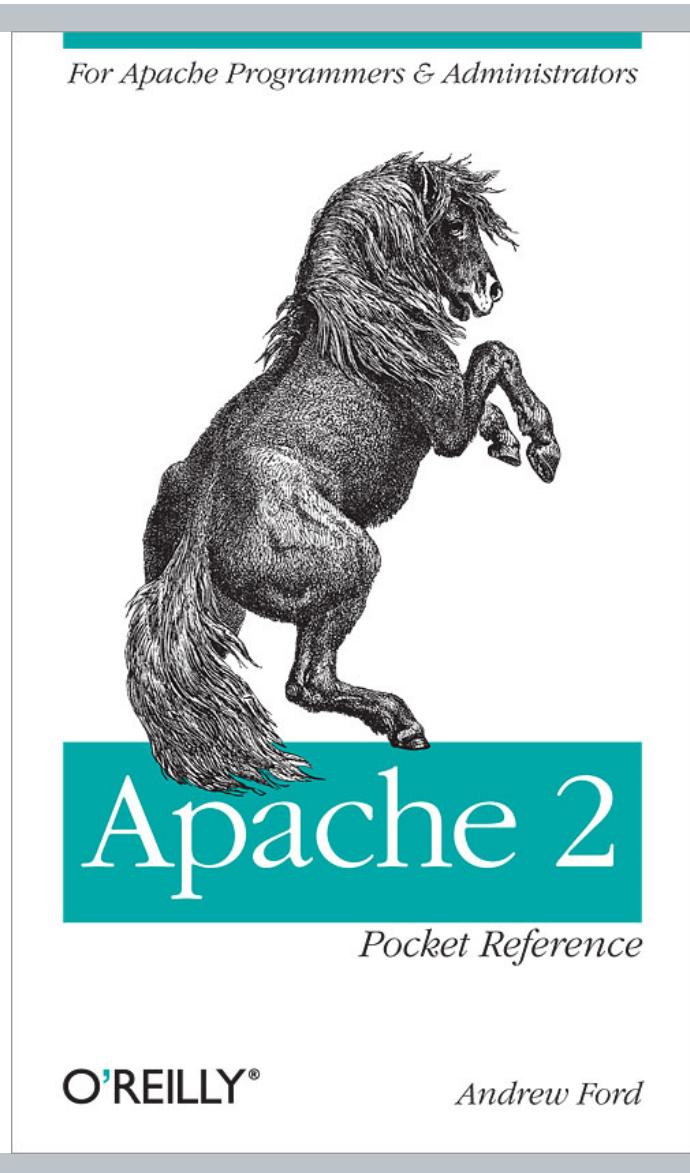


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Lecturas recomendadas (II)

- Andrew Ford
- “Apache 2. Pocket Reference”
- 2009, O'Reilly

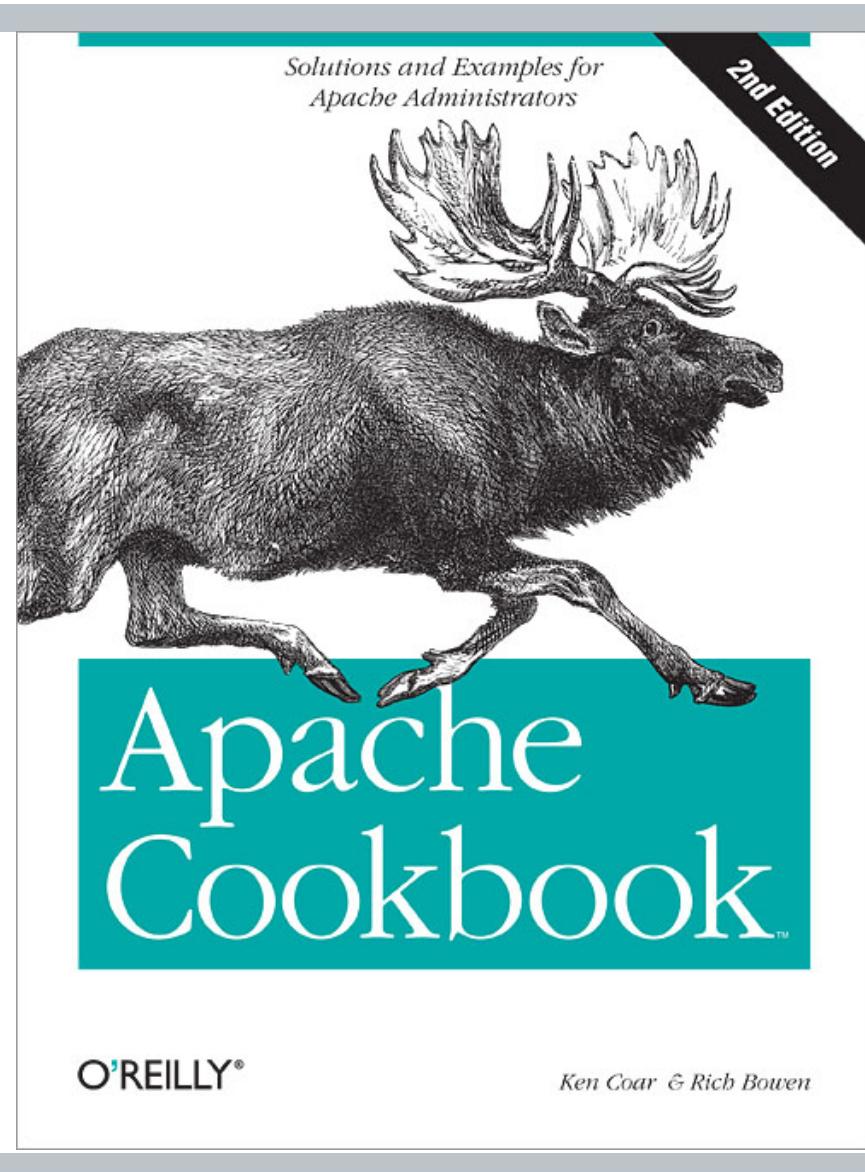


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Lecturas recomendadas (III)

- Ken Coar & Rich Bowen
- “Apache Cookbook”
- 2009, O'Reilly

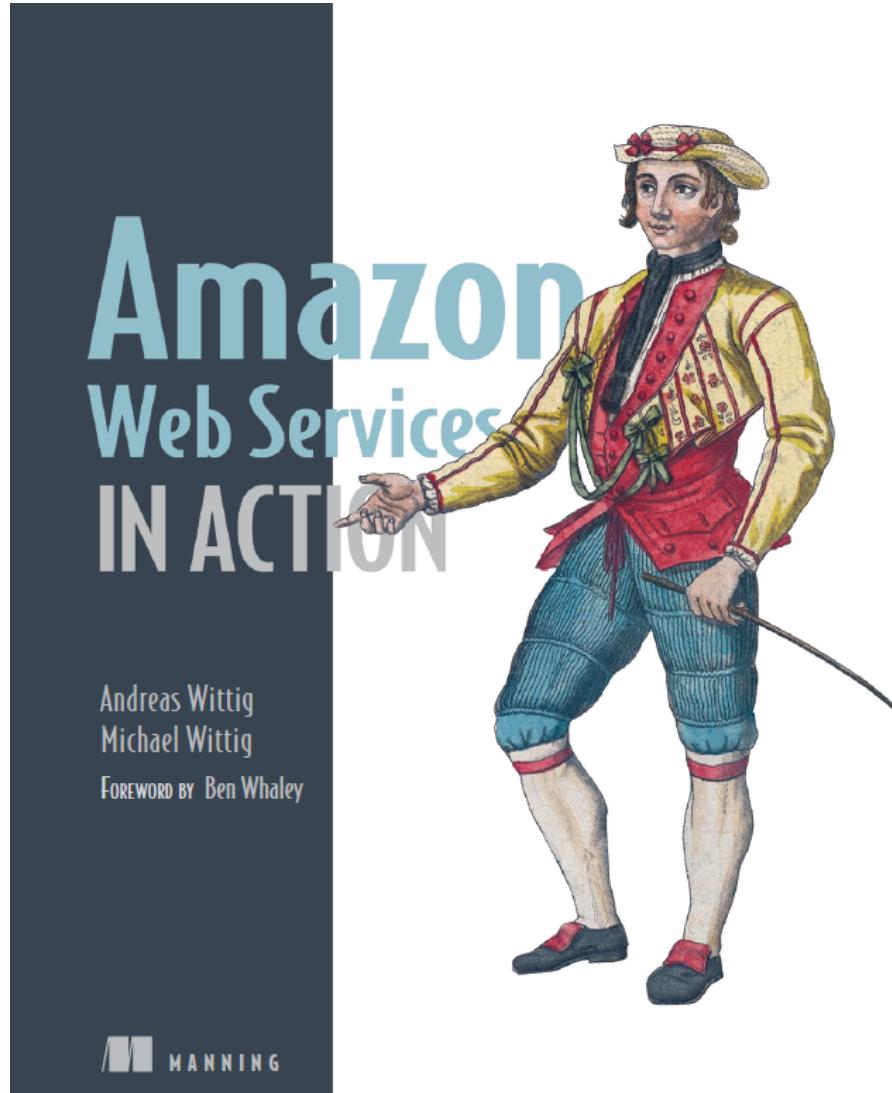


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Lecturas recomendadas (IV)

- Andreas Wittand
Michael Witting
- “**Amazon Web Services IN ACTION**”
- 2016, Manning

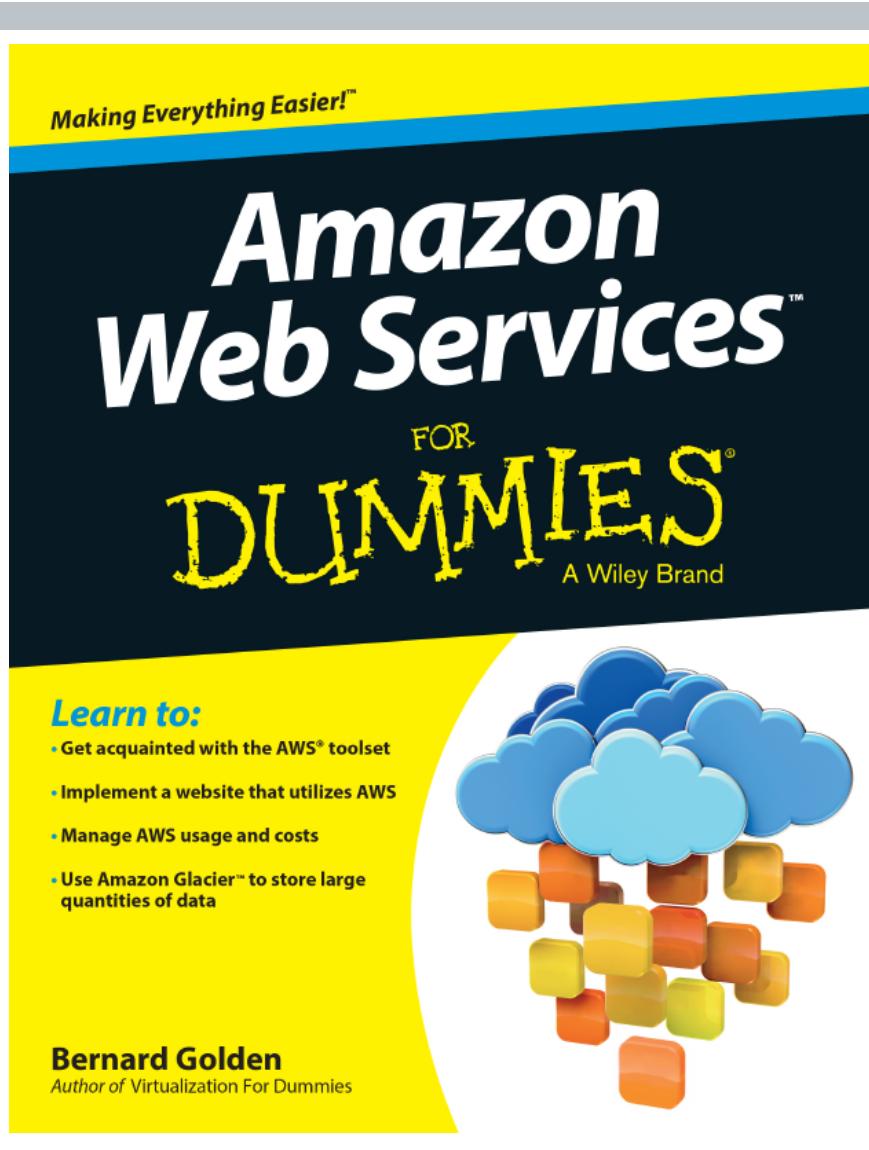


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Lecturas recomendadas (V)

- Bernard Golden
- “Amazon Web Services for DUMMIES”
- 2013, John Wiley & Sons .

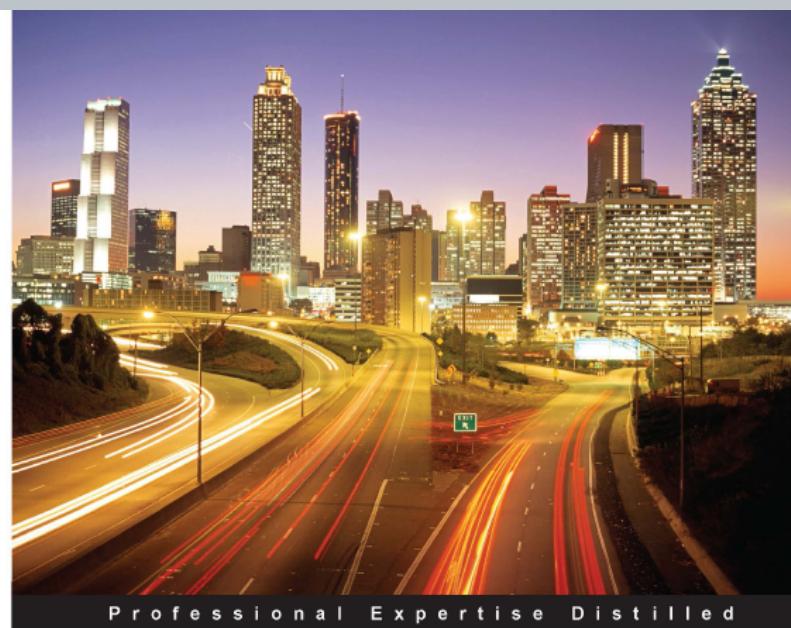


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Lecturas recomendadas (VI)

- **Uchit Vyas**
- “Mastering AWS Development”
- 2015, PACKT enterprise



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Mastering AWS Development

Develop and migrate your enterprise application to the Amazon Web Services platform

Uchit Vyas

[PACKT] enterprise
PUBLISHING professional expertise distilled

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Lecturas recomendadas (VII)

- Timothy Boronczyk
- Elizabeth Naramore
- Jason Gerner
- Yann Le Scouarnec
- Jeremy Stolz
- Michael K. Glass
- “**Beginning PHP6, Apache, MySQL Web Development**”
- 2009, Wrox



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Referencias

- **AWS: Hospedaje Web**
 - https://aws.amazon.com/es/websites/?nc1=f_dr
- **Servidores Web más utilizados**
 - https://w3techs.com/technologies/overview/web_server/all
- **Estándar HTTP - Hypertext Transfer Protocol**
 - <https://www.w3.org/Protocols/>
- **Apache. HTTP Server Project**
 - <https://httpd.apache.org/>
- **Uso de lenguajes de programación del lado del servidor**
 - https://w3techs.com/technologies/overview/programming_language/all
- **PHP**
 - <http://www.php.net/>
- **Versión 2.4 de la documentación del Servidor de HTTP Apache**
 - <https://httpd.apache.org/docs/2.4/es/>
- **Tutorial: instalación de un servidor web LAMP en Amazon Linux**
 - http://docs.aws.amazon.com/es_es/AWSEC2/latest/UserGuide/install-LAMP.html
- **Tutorial: Configuración del servidor web Apache en Amazon Linux para utilizar SSL/TLS**
 - http://docs.aws.amazon.com/es_es/AWSEC2/latest/UserGuide/SSL-on-an-instance.html

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Software y estándares para la Web

Trabajo (I): Nuevas entradas en la bitácora sobre servidores Web

- Crear **una o varias entradas** en la bitácora sobre **servidores Web**
- Se pueden hacer entradas sobre el **protocolo HTTP**
- También puede haber entradas específicas sobre algún servidor Web como: **Apache, Nginx, Internet Information Server**, etc.
- Además se pueden incluir entradas de cómo soporta **Amazon Web Services** el hospedaje de sitios Web
- Otras entradas pueden ser sobre **lenguajes y herramientas** que soportan los servidores Web

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Trabajo (II): Crear un servidor Web Apache con Ubuntu Linux en AWS

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- Crear una **instancia** en AWS con una máquina Ubuntu Linux
- Instalar el **servidor Web Apache** en la máquina Ubuntu Linux de AWS
- Subir la “**página personal**” al servidor Web Apache de la máquina Ubuntu Linux de AWS
- **Comprobar su funcionamiento**
- **Eliminar la máquina Ubuntu Linux en AWS**
- Comentar todo el proceso de crear el servidor Web Apache y subir la “página personal” en la **bitácora**. Se deben acompañar capturas de pantallas

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Trabajo (III): Crear un servidor Web Apache con Amazon Linux en AWS

- Crear una **instancia en AWS** con una máquina **Amazon Linux**
- Instalar el **servidor Web Apache** en la máquina Amazon Linux de AWS
- Subir la “**página personal**” al servidor Web Apache de la máquina Amazon Linux de AWS
- Comprobar su funcionamiento
- Eliminar la máquina Amazon Linux en AWS
- Comentar todo el proceso de crear el servidor Web Apache y subir la “página personal” en la **bitácora**. Se deben acompañar capturas de pantallas

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Software y estándares para la Web

Trabajo (IV): Instalar LAMP con Amazon Linux en AWS

- Crear una **instancia en AWS** con una **máquina Amazon Linux**
- Instalar **LAMP** en la máquina Amazon Linux de AWS
- Comprobar su funcionamiento
- Eliminar la máquina Amazon Linux en AWS
- Comentar todo el proceso de instalar LAMP en la **bitácora**. Se deben acompañar capturas de pantallas

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