

Evidencias laboratorio

Creación Instance EC2

Paso 2: Página Choose an Instance Type

Amazon EC2 proporciona una amplia selección de tipos de instancias optimizados para adaptarse a diferentes casos de uso. Las instancias son servidores virtuales que pueden ejecutar aplicaciones. Tienen distintas combinaciones de CPU, memoria, almacenamiento y capacidad de red, lo que proporciona una gran flexibilidad para elegir la combinación de recursos adecuada para las aplicaciones. [Más información](#) acerca de los tipos de instancias y cómo pueden satisfacer sus necesidades de computación.

Filtrar por: Todas las familias de instancias Generación actual Mostrar/ocultar columnas

	Familia	Tipo	vCPU	Memoria (GiB)	Almacenamiento de la Instancia (GiB)	Optimizado para EBS disponible	Desempeño de la red	Compatibilidad con IPv6
	t2	t2.nano	1	0.5	EBS solo	-	De bajo a moderado	Sí
	t2	t2.micro <small>Apto para la copia gratuita</small>	1	1	EBS solo	-	De bajo a moderado	Sí
	t2	t2.small	1	2	EBS solo	-	De bajo a moderado	Sí
	t2	t2.medium	2	4	EBS solo	-	De bajo a moderado	Sí
	t2	t2.large	2	8	EBS solo	-	De bajo a moderado	Sí
	t2	t2.xlarge	4	16	EBS solo	-	Moderada	Sí
	t2	t2.2xlarge	8	32	EBS solo	-	Moderada	Sí
	t3	t3.nano	2	0.5	EBS solo	Sí	Hasta 5 gigabits	Sí
<input checked="" type="checkbox"/>	t3	t3.micro	2	1	EBS solo	Sí	Hasta 5 gigabits	Sí
	t3	t3.small	2	2	EBS solo	Sí	Hasta 5 gigabits	Sí
	t3	t3.medium	2	4	EBS solo	Sí	Hasta 5 gigabits	Sí
	t3	t3.large	2	8	EBS solo	Sí	Hasta 5 gigabits	Sí
	t3	t3.xlarge	4	16	EBS solo	Sí	Hasta 5 gigabits	Sí

Cancelar Anterior Revisar y lanzar Siguiente: Página Configuración de los detalles de la instancia

Directorio de unión al dominio i Ningún directorio ▼ C Crear nuevo directorio

Rol de IAM i LabInstanceProfile ▼ C Crear un nuevo rol de IAM

Paso 4: Adición de almacenamiento

Su instancia se lanzará con la siguiente configuración de dispositivo de almacenamiento. Puede asociar volúmenes de EBS y volúmenes del almacén de instancias adicionales a la instancia o editar la configuración del volumen raíz. También puede asociar volúmenes de EBS adicionales después de lanzar una instancia, pero no volúmenes del almacén de instancias. [Obtenga más información](#) acerca de las opciones de almacenamiento de Amazon EC2.

Tipo de volumen	Dispositivo	Snapshot	Tamaño (GiB)	Tipo de volumen	IOPS	Velocidad (MB/s)	Eliminar al terminar	Cifrado
Raíz	/dev/sda1	snap-01c263263cf25bf37	20	SSD de uso general (gp2)	100/3000	N/D	<input checked="" type="checkbox"/>	No cifrado

Añadir nuevo volumen

Paso 6: Página Configure Security Group

Un grupo de seguridad es un conjunto de reglas del firewall que controlan el tráfico de la instancia. En esta página, puede agregar reglas para permitir que determinado tráfico llegue a la instancia. Por ejemplo, si desea configurar un servidor web y permitir que el tráfico de Internet llegue a la instancia, agregue reglas que permitan el acceso sin restricción a los puertos HTTP y HTTPS. Puede crear un nuevo grupo de seguridad o seleccionar uno existente a continuación. [Más información](#) sobre los grupos de seguridad de Amazon EC2.

Asignar un grupo de seguridad: Crear un nuevo grupo de seguridad

Seleccionar un grupo de seguridad existente

Nombre del grupo de seguridad:

Descripción:

Tipo	Protocolo	Rango de puertos	Origen	Descripción
SSH	TCP	22	Personalizado 0.0.0.0/0	por ejemplo SSH for Admin Desktop
Regla TCP personalizada	TCP	8080	Mi IP 201.221.172.56/32	por ejemplo SSH for Admin Desktop
HTTP	TCP	80	Mi IP 201.221.172.56/32	por ejemplo SSH for Admin Desktop

[Añadir regla](#)



Aviso

Las reglas con el origen 0.0.0.0/0 permiten que todas las direcciones IP tengan acceso a la instancia. Le recomendamos que configure las reglas del grupo de seguridad para permitir el acceso únicamente desde direcciones IP conocidas.

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X

Seleccione un par de claves existente o cree un nuevo par de claves

Un par de claves consta de una **clave pública** que AWS almacena y un **archivo de claves privadas** que usted almacena. Juntas, le permiten conectarse a su instancia de forma segura. Para las AMI de Windows, el archivo de claves privadas es necesario para obtener la contraseña usada para iniciar sesión en la instancia. Para las AMI de Linux, el archivo de claves privadas le permite establecer una conexión SSH segura con su instancia. Amazon EC2 es compatible con los tipos de clave RSA y ED25519.

Nota: El par de claves seleccionado se añadirá al conjunto de claves autorizadas para esta instancia. Obtenga más información sobre [cómo eliminar pares de claves existentes de una AMI pública](#).

Seleccionar un par de claves

Confirmo que tengo acceso al archivo de clave privada correspondiente, y que sin este archivo, no podré iniciar sesión en mi instancia.

[Cancelar](#)

[Lanzar instancias](#)

Página Launch Status

Se está lanzando su instancia

Se ha iniciado el siguiente lanzamiento de instancia: i-06f4657bd6956c536 [Ver log de lanzamiento](#)

Recibir notificaciones de los cargos estimados

Crear alertas de facturación para obtener una notificación por correo electrónico cuando los cargos estimados de su factura de AWS superen el importe definido (por ejemplo, cuando se excede la capa de uso gratuita).

Cómo conectarse a la instancia

Se está lanzando su instancia. Pueden transcurrir unos minutos hasta que tenga el estado **en ejecución**, momento en el cual estará lista para poder usarla. Las horas de uso de la nueva instancia comenzarán inmediatamente y seguirán devengando gastos hasta que detenga o termine la instancia.

Haga clic en [Ver las instancias](#) para monitorizar el estado de su instancia. Cuando la instancia tenga el estado **en ejecución**, podrá [conectarse](#) a ella desde la pantalla Instancias. [Más información](#) cómo conectarse a la instancia.

▼ Aquí tiene algunos recursos útiles que le ayudarán a comenzar

- [Cómo conectarse a la instancia Linux](#)
- [Amazon EC2: Guía del usuario](#)
- [Más información sobre la capa de uso gratuita de AWS](#)
- [Amazon EC2: Foro de debate](#)

Mientras se están lanzando sus instancias, también puede

- Crear alarmas de comprobación de estado recibir notificaciones cuando estas instancias no superen las comprobaciones de estado. (Podrían aplicarse cargos adicionales)
- [Crear y asociar volúmenes de EBS adicionales](#) (Podrían aplicarse cargos adicionales)
- Administrar grupos de seguridad

[Ver instancias](#)

Instancias (1) Información											
Conectar Estado de la instancia ▾ Acciones ▾ Lanzar instancias ▼											
<input type="text"/> Buscar											
Name	ID de la instancia	Estado de la i...	Tipo de inst...	Comprobación ...	Estado de la ...	Zona de dispon...	DNS de IPv4 pública	Dirección IP...	IP elástica		
-	i-06f4657bd6956c536	En ejecución	t3.micro	Initializando	Sin alarmas	us-east-1b	ec2-34-205-33-211.co...	34.205.33.211	-		

EC2 > Instancias > i-06f4657bd6956c536 [Información](#)

Resumen de instancia de i-06f4657bd6956c536 [Información](#)

Se ha actualizado hace less than a minute

ID de la Instancia i-06f4657bd6956c536	Dirección IPv4 pública 34.205.33.211 dirección abierta	Direcciones IPv4 privadas 172.31.88.44															
Dirección IPv6 -	Estado de la Instancia En ejecución	DNS de IPv4 pública ec2-34-205-33-211.compute-1.amazonaws.com dirección abierta															
Tipo de nombre de anfitrión Nombre de IP: ip-172-31-88-44.ec2.internal	Nombre DNS de IP privada (solo IPv4) ip-172-31-88-44.ec2.internal	Direcciones IP elásticas -															
Responder al nombre DNS de recurso privado IPv4 (A)	Tipo de Instancia t3.micro	Hallazgo de AWS Compute Optimizer Suscríbase a AWS Compute Optimizer para recibir recomendaciones. Más información															
Dirección IP asignada automáticamente 34.205.33.211 [IP pública]	ID de VPC vpc-046c03eb5e69298f0	Nombre del grupo de Auto Scaling -															
Rol de IAM LabRole	ID de subred subnet-0805517bc1cc97d8d																
Detalles Seguridad Redes Almacenamiento Comprobaciones de estado Monitoreo Etiquetas																	
▼ Detalles de la instancia Información <table border="1"> <tbody> <tr> <td>Plataforma Ubuntu (Inferno)</td> <td>ID de AMI ami-03bac39db5de2f828</td> <td>Monitoreo desactivado</td> </tr> <tr> <td>Detalles de la plataforma Linux/UNIX</td> <td>Nombre de AMI Cloud9Ubuntu-2022-06-10T09-45</td> <td>Protección de terminación desactivado</td> </tr> <tr> <td>Detener la protección desactivado</td> <td>Hora de lanzamiento Fri Jun 10 2022 17:50:30 GMT-0500 (hora estándar de Colombia) (2 minutes)</td> <td>Ubicación de AMI amazon/Cloud9Ubuntu-2022-06-10T09-45</td> </tr> <tr> <td>Recuperación automática de instancias Predeterminada</td> <td>Ciclo de vida normal</td> <td>Comportamiento de detención de hibernación desactivado</td> </tr> <tr> <td>Índice de lanzamiento de AMI</td> <td>Nombre del par de claves</td> <td>Motivo de transición de estado</td> </tr> </tbody> </table>			Plataforma Ubuntu (Inferno)	ID de AMI ami-03bac39db5de2f828	Monitoreo desactivado	Detalles de la plataforma Linux/UNIX	Nombre de AMI Cloud9Ubuntu-2022-06-10T09-45	Protección de terminación desactivado	Detener la protección desactivado	Hora de lanzamiento Fri Jun 10 2022 17:50:30 GMT-0500 (hora estándar de Colombia) (2 minutes)	Ubicación de AMI amazon/Cloud9Ubuntu-2022-06-10T09-45	Recuperación automática de instancias Predeterminada	Ciclo de vida normal	Comportamiento de detención de hibernación desactivado	Índice de lanzamiento de AMI	Nombre del par de claves	Motivo de transición de estado
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Índice de lanzamiento de AMI	Nombre del par de claves	Motivo de transición de estado															

Verificación instancia desde conexión

```
ddd_v1_w_JE6_1256562@runweb56979:~$ ssh -i ~/ssh/labsuser.pem ubuntu@ec2-34-205-33-211.compute-1.amazonaws.com
Welcome to Ubuntu 18.04.6 LTS (GNU/Linux 5.4.0-1078-aws x86_64)

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

System information as of Fri Jun 10 23:11:54 UTC 2022

System load: 0.24           Processes:          108
Usage of /: 41.9% of 19.32GB Users logged in:    0
Memory usage: 43%           IP address for ens5:   172.31.88.44
Swap usage:  1%             IP address for docker0: 172.17.0.1

* Ubuntu Pro delivers the most comprehensive open source security and
  compliance features.

  https://ubuntu.com/aws/pro

0 updates can be applied immediately.

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

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

:~ $
```

Integración con Cloud9

Developer Tools

AWS Cloud9

A cloud IDE for writing, running, and debugging code

AWS Cloud9 allows you to write, run, and debug your code with just a browser. With AWS Cloud9, you have immediate access to a rich code editor, integrated debugger, and built-in terminal with preconfigured AWS CLI. You can get started in minutes and no longer have to spend the time to install local applications or configure your development machine.

New AWS Cloud9 environment

Create environment

How it works

Create an AWS Cloud9 development environment on a new Amazon EC2 instance or connect it to your own Linux server through SSH. Once you've created an AWS Cloud9 environment, you will have immediate access to a rich code editor, integrated debugger, and built-in terminal with pre-configured AWS CLI – all within your browser.

Using the AWS Cloud9 dashboard, you can create and switch between many different AWS Cloud9 environments, each one containing the custom tools, runtimes, and files for a specific project.

Learn more

Getting started

Before you start	2 min read
Create an environment	3 min read
Working with environments	15 min read
Working with the IDE	10 min read
Working with AWS Lambda	5 min read

More resources

AWS Cloud9 > Environments > Create environment

Step 1
Name environment

Step 2
Configure settings

Step 3
Review

Name environment

Environment name and description

Name
The name needs to be unique per user. You can update it at any time in your environment settings.

Limit: 60 characters

Description - Optional
This will appear on your environment's card in your dashboard. You can update it at any time in your environment settings.

Limit: 200 characters

Cancel

Configure settings

Environment settings

Environment type [Info](#)

Run your environment in a new EC2 instance or an existing server. With EC2 instances, you can connect directly through Secure Shell (SSH) or connect via AWS Systems Manager (without opening inbound ports).

- Create a new EC2 instance for environment (direct access)**
Launch a new instance in this region that your environment can access directly via SSH.
- Create a new no-ingress EC2 instance for environment (access via Systems Manager)**
Launch a new instance in this region that your environment can access through Systems Manager.
- Create and run in remote server (SSH connection)**
Configure the secure connection to the remote server for your environment.

SSH server connection [Info](#)

AWS Cloud9 can use an SSH public key to connect securely to your server. To start, you need to add our public key to your `~/.ssh/authorized_keys` file and provide your remote login credentials below.

User

ubuntu

Host

ec2-34-205-33-211.compute-1.amazonaws.com

Port

22

► [View public SSH key](#)

[Copy key to clipboard](#)

► [Advanced settings](#)

No tags associated with the resource.

[Add new tag](#)

You can add 50 more tags.

[Cancel](#)

[Previous step](#)

[Next step](#)

```

ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQAC5K5nrJrg0HwrdBJVdgzlZ0+0KeYoe8rrp1HsrqRAcY3NBLqhmcUCM1/I7CH80M8Z96v+KjqI2/IlaLUkcj
1PZZRCjCycUQVwYBjH+yBLZob+2x+FnXR10BxK4QwnW/qI9ZoeuebwJ0drnoQDP8YG0kpDBS/gavy0CytgLklyenz5+LF6blaTKiHDiHmYCFahwZD8Ys4z5G
nAGZwkzqC3UqBkaga+V882Ed9uCYuq7q0+yyu13SQ+WbJdgnBie2KPU4e5iLlcJZCp30dUypoRjncYeDIc9bQi/HjBVIt7eQ07Kre8SjNdGkloa+YZkr0Yd
PZRS0tkcu4B0Z7btj vockey
ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQDNpBdbi/6GKT6lKSMlwqNo/+NKEIJXjb6amorGP745e2WskzToopK2KPCRKwCMYticiFZHbumBNu5aUy3
ED2yhtBipSB4FLhmufL9VgJVOX2bMv9tAnqFRTwkbEs2P44w0fWYvHoqBlR1QI99IVzUzb2Py709AYt2caAlr71dmC8Q4DKt9sGwSIicCPPsojz6VRFNTcujj6
0c3Jv6eh8990TBaLQYeembWBTH/+fuiRJUREN0l9BF4RvA0k00eYPEg58sFdKDCkeQJvoZCy+lhj0+/Jjw+dvjauHFcD9yrfko8mrh5jokNxrvk7b0dAUrv3E
MMcqBwgmr0PQ7CT71vgcWJzpHK4R3UHWA8Ptbu0hIwGX5kIDh4sFFHjUb+xW9fx1+pCJplql0vcWeRxnFQ7pdyBX5USI3FXIe5Is889wb/SoQgynYwqtugMy
phdbHyJpGHjs2HQNPKJc/gzL1LMHNmtfQaLiIrhql/J5KAyqFrZDWazXVTbeWnhDvoC7NI9A+aMRRY1e6f6UUpcGF6ieDk9h05nfJrNEni9weK2V4owTT4a+
Y2wv4WTjkW5houvd1pcpAhop/yZLoa080VE17nnA+sVsYf9bVjaeXviEzVDplixaevaNIwiapNzfM0qsfVrf5q7+iCXRAqoa9kvmrQX30AxApY54RBtQ== v
oclabs+831890784775@cloud9.amazon.com
~
```

Step 1

Name environment

Step 2

Configure settings

Step 3

Review

Review

Environment name and settings

Name

labCloud9

Description

labCloud9

Environment type

SSH

Login

ubuntu

Host

ec2-34-205-33-211.compute-1.amazonaws.com

Port

22

Environment path

No environment path provided

Node.js binary path

No node.js binary path provided

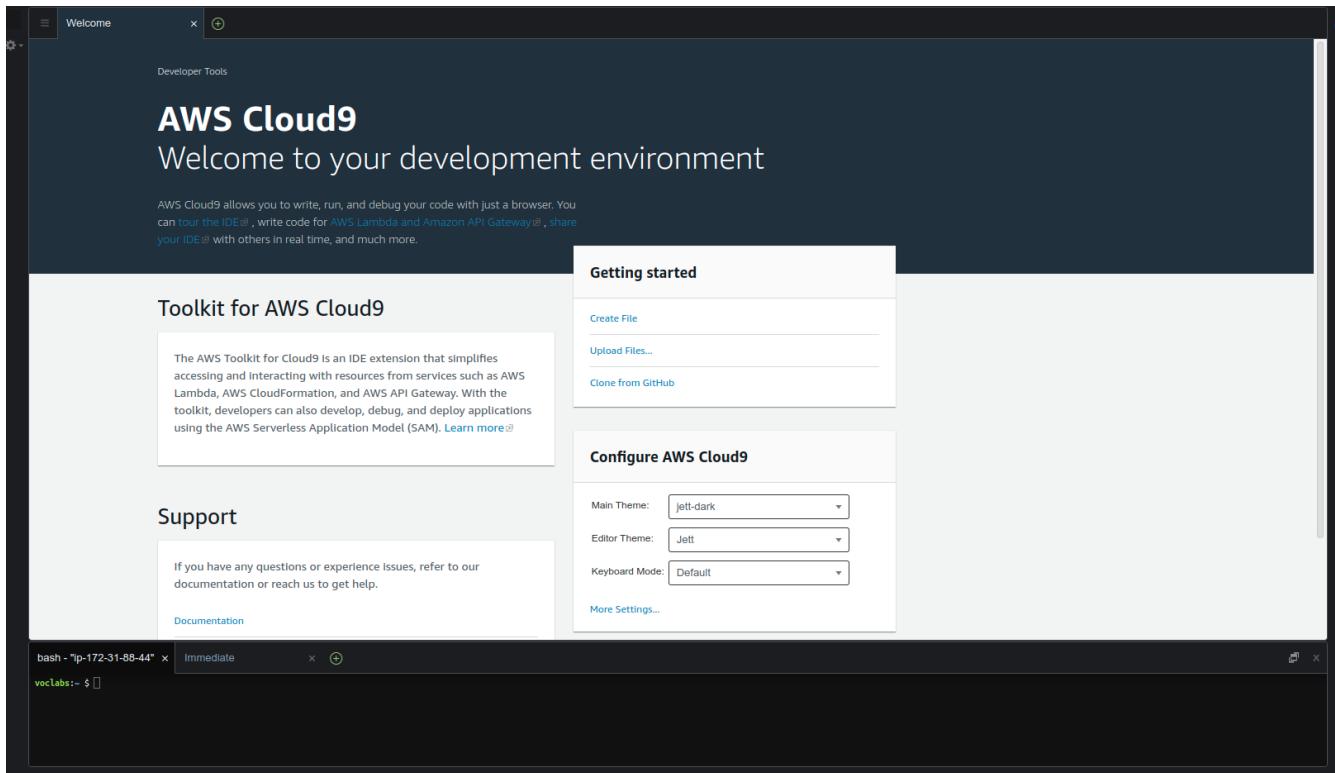
SSH jump host

No ssh jump host provided

Cancel

Previous step

Create environment



Integración del servicio de Jenkins

Instalación Java

```
:~ $ sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu bionic InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu bionic-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu bionic-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu bionic-security InRelease
Hit:5 https://download.docker.com/linux/ubuntu bionic InRelease
Reading package lists... Done
:~ $
```

Ver logs

```
:~ $ sudo apt-get install default-jdk -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  at-spi2-core default-jdk-headless default-jre default-jre-headless fonts-dejavu-extra
  libatk-bridge2.0-0 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0 libatk1.0-data
  libatspi2.0-0 libdrm-amdgpu1 libdrm-intel1 libdrm-nouveau2 libdrm-radeon1 libfontenc1 libgif7
  libgl1 libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa libglx0 libice-dev libice6 liblvm10
  libpiaaccess80 libpthread-stubs8-dev libsensors4 libsm-dev libsm6 libxi1-dev libxi1-doc libxi1-xcb
  libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-shape0
  libxcb-sync1 libxcb1-dev libcomposite1 libxdamage1 libxdmcp-dev libxfixes3 libxft2 libxi6
  libxinerama1 libxmu6 libxpm4 libxrandr2 libxrender1 libxshmfence1 libxt-dev libxt6 libxtst6 libxv1
  libxf86dga1 libxf86vm1 openjdk-11-jdk openjdk-11-jre x11-common x11-utils x11proto-core-dev
  x11proto-dev xorg-sgml-doctools xtrans-dev
Suggested packages:
  libice-doc lm-sensors libsm-doc libxcb-doc libxt-doc openjdk-11-demo openjdk-11-source visualvm
  mesa-utils
The following NEW packages will be installed:
  at-spi2-core default-jdk default-jdk-headless default-jre default-jre-headless fonts-dejavu-extra
  libatk-bridge2.0-0 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0 libatk1.0-data
  libatspi2.0-0 libdrm-amdgpu1 libdrm-intel1 libdrm-nouveau2 libdrm-radeon1 libfontenc1 libgif7
  libgl1 libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libice-dev libice6 liblvm10
  libpiaaccess80 libpthread-stubs8-dev libsensors4 libsm-dev libsm6 libxi1-dev libxi1-doc libxi1-xcb
  libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-shape0
  libxcb-sync1 libxcb1-dev libcomposite1 libxdamage1 libxdmcp-dev libxfixes3 libxft2 libxi6
  libxf86dga1 libxf86vm1 openjdk-11-jdk openjdk-11-jre x11-common x11-utils x11proto-core-dev
  x11proto-dev xorg-sgml-doctools xtrans-dev
```

Install Jenkis

```
wget -qO - https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo apt-key add -
```

```
:~ $ wget -qO - https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo apt-key add -
OK
:~ $
```

```
echo deb http://pkg.jenkins.io/debian-stable binary/ | sudo tee /etc/apt/sources.list.d/jenkins.list
```

```
:~ $ echo deb http://pkg.jenkins.io/debian-stable binary/ | sudo tee /etc/apt/sources.list.d/jenkins.list
deb http://pkg.jenkins.io/debian-stable binary/
:~ $ █
```

```
:~ $ sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu bionic InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu bionic-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu bionic-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu bionic-security InRelease [88.7 kB]
Hit:6 https://download.docker.com/linux/ubuntu bionic InRelease
Ign:5 https://pkg.jenkins.io/debian-stable binary/ InRelease
Get:7 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:8 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Get:9 https://pkg.jenkins.io/debian-stable binary/ Packages [21.9 kB]
Fetched 114 kB in 1s (161 kB/s)
Reading package lists... Done
:~ $ █
```

```
:~ $ sudo apt-get install jenkins -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  jenkins
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 91.4 MB of archives.
After this operation, 95.0 MB of additional disk space will be used.
Get:1 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.332.3 [91.4 MB]
Fetched 91.4 MB in 16s (5847 kB/s)
Selecting previously unselected package jenkins.
(Reading database ... 107372 files and directories currently installed.)
Preparing to unpack .../jenkins_2.332.3_all.deb ...
Unpacking jenkins (2.332.3) ...
Setting up jenkins (2.332.3) ...
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /lib/systemd/system/jenkins.service.
Processing triggers for systemd (237-3ubuntu10.53) ...
Processing triggers for ureadahead (0.100.0-21) ...
:~ $ █
```

```
:~ $ sudo service jenkins status
● jenkins.service - Jenkins Continuous Integration Server
  Loaded: loaded (/lib/systemd/system/jenkins.service; enabled; vendor preset: enabled)
  Active: active (running) since Fri 2022-06-10 23:41:43 UTC; 4min 31s ago
    Main PID: 10238 (java)
       Tasks: 35 (limit: 1104)
      CGroup: /system.slice/jenkins.service
              └─10238 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080

Jun 10 23:41:10 ip-172-31-88-44 jenkins[10238]: Please use the following password to proceed to installation:
Jun 10 23:41:10 ip-172-31-88-44 jenkins[10238]: 4dc8fba530af45d59b56f6c18a853e50
Jun 10 23:41:10 ip-172-31-88-44 jenkins[10238]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
Jun 10 23:41:10 ip-172-31-88-44 jenkins[10238]: ****
Jun 10 23:41:43 ip-172-31-88-44 jenkins[10238]: 2022-06-10 23:41:43.575+0000 [id=28]           INFO      jenkins.InitReactorRunner$1#onAttained: Compl
Jun 10 23:41:43 ip-172-31-88-44 jenkins[10238]: 2022-06-10 23:41:43.615+0000 [id=22]           INFO      hudson.lifecycle.Lifecycle#onReady: Jenkins i
Jun 10 23:41:43 ip-172-31-88-44 systemd[1]: Started Jenkins Continuous Integration Server.
Jun 10 23:41:43 ip-172-31-88-44 jenkins[10238]: 2022-06-10 23:41:43.798+0000 [id=45]           INFO      h.m.DownloadService$Downloadable#load: Obtain
Jun 10 23:41:43 ip-172-31-88-44 jenkins[10238]: 2022-06-10 23:41:43.800+0000 [id=45]           INFO      hudson.util.Retriger#start: Performed the acti
Jun 10 23:41:43 ip-172-31-88-44 jenkins[10238]: 2022-06-10 23:41:43.812+0000 [id=45]           INFO      hudson.model.AsyncPeriodicWork#lambda$doRun$1
lines 1-18/18 (END)
```

Getting Started

Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log ([not sure where to find it?](#)) and this file on the server:

`/var/lib/jenkins/secrets/initialAdminPassword`

Please copy the password from either location and paste it below.

Administrator password

Getting Started

Bienvenido a Jenkins

Plugins extend Jenkins with additional features to support many different needs.

Install suggested plugins

Install plugins the Jenkins community finds most useful.

Select plugins to install

Select and install plugins most suitable for your needs.

Getting Started

Getting Started

✓ Folders	✓ OWASP Markup Formatter	✓ Build Timeout	✓ Credentials Binding
✓ Timestamper	✓ Workspace Cleanup	✓ Ant	✓ Gradle
✓ Pipeline	GitHub Branch Source	Pipeline: GitHub Groovy Libraries	Pipeline: Stage View
✓ Git	SSH Build Agents	Matrix Authorization Strategy	PAM Authentication
LDAP	Email Extension	✓ Mailer	

```

    ** Oracle Java SE Development Kit Installer
    ** Command Agent Launcher
    ** bouncycastle API
    ** JavaScript GUI Lib: ACE Editor bundle
    ** Pipeline: SCM Step
    ** Pipeline: Groovy
    ** Pipeline: Job
    ** Apache HttpComponents Client 4.x API
    Mailer
    ** Pipeline: Basic Steps
    Grade
    ** Pipeline: Milestone Step
    ** Pipeline: Build Step
    ** Variant
    ** Pipeline: Groovy Libraries
    ** Pipeline: Stage Step
    ** Pipeline: Model API
    ** Pipeline: Declarative Extension Points API
    ** Branch API
    ** Pipeline: Multibranch
    ** Pipeline: Stage Tags
    Metadata
    ** JSch dependency
    ** Git client
    ** Pipeline: Input Step
  
```

Getting Started

Create First Admin User

Usuario:	<input type="text" value="jesusalmanza"/>
Contraseña:	<input type="password" value="....."/>
Confirma la contraseña:	<input type="password" value="....."/>
Nombre completo:	<input type="text" value="Jesus Almanza"/>
Dirección de email:	<input type="text" value="jesusalmanza@gmail.com"/>

Getting Started

Instance Configuration

Jenkins URL: <http://ec2-34-205-33-211.compute-1.amazonaws.com:8080/>

The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD_URL environment variable provided to build steps.

The proposed default value shown is **not saved yet** and is generated from the current request; if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.

Jenkins 2.332.3

Not now Save and Finish

Plugin Manager

[Actualizaciones disponibles](#) [Todos los plugins](#) [Plugins instalados](#) [Configuración avanzada](#)

[SSH Agent](#) 295.v9ca_a_1c7cc3a_a_ Released Hace 1 Mes 1 día
This plugin allows you to provide SSH credentials to builds via a ssh-agent in Jenkins.

[Cobertura](#) 1.17 Released Hace 7 Mes 4 días
[Plugins para Maven](#) [Plugins para generar informes](#)
This plugin integrates Cobertura coverage reports to Jenkins.

Instalación de librerías de Python

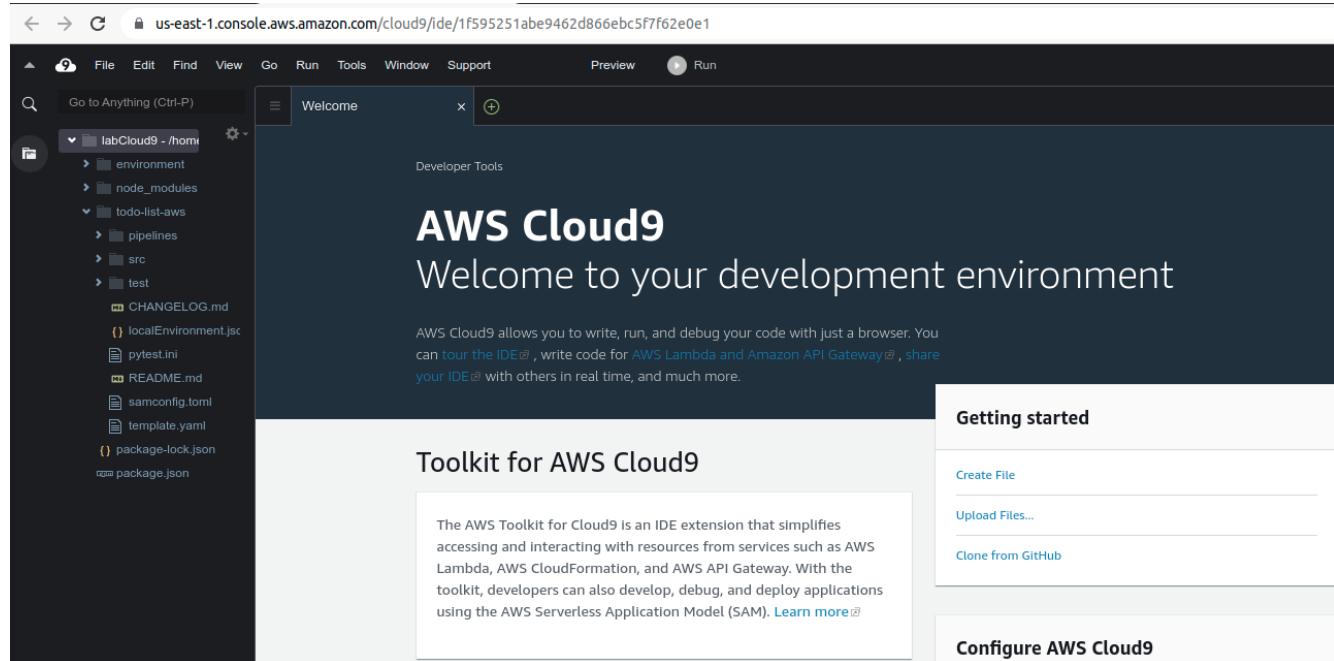
```
:~ $ sudo apt install python3.7 python3.7-venv
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libpython3.7-minimal libpython3.7-stdlib python3.7-minimal
Suggested packages:
  python3.7-doc binfmt-support
The following NEW packages will be installed:
  libpython3.7-minimal libpython3.7-stdlib python3.7 python3.7-minimal python3.7-venv
0 upgraded, 5 newly installed, 0 to remove and 0 not upgraded.
Need to get 4279 kB of archives.
After this operation, 22.5 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 libpython3.7-minimal amd64 3.7.5-2ubuntu1~18.04.2 [546 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 python3.7-minimal amd64 3.7.5-2ubuntu1~18.04.2 [1681 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 libpython3.7-stdlib amd64 3.7.5-2ubuntu1~18.04.2 [1745 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 python3.7 amd64 3.7.5-2ubuntu1~18.04.2 [301 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 python3.7-venv amd64 3.7.5-2ubuntu1~18.04.2 [6200 B]
Fetched 4279 kB in 0s (39.8 MB/s)
Selecting previously unselected package libpython3.7-minimal:amd64.
(Reading database ... 107386 files and directories currently installed.)
Preparing to unpack .../libpython3.7-minimal_3.7.5-2ubuntu1~18.04.2_amd64.deb ...
Unpacking libpython3.7-minimal:amd64 (3.7.5-2ubuntu1~18.04.2) ...
Selecting previously unselected package python3.7-minimal.
Preparing to unpack .../python3.7-minimal_3.7.5-2ubuntu1~18.04.2_amd64.deb ...
Unpacking python3.7-minimal (3.7.5-2ubuntu1~18.04.2) ...
Selecting previously unselected package libpython3.7-stdlib:amd64.
Preparing to unpack .../libpython3.7-stdlib_3.7.5-2ubuntu1~18.04.2_amd64.deb ...
Unpacking libpython3.7-stdlib:amd64 (3.7.5-2ubuntu1~18.04.2) ...
Selecting previously unselected package python3.7.
Preparing to unpack .../python3.7_3.7.5-2ubuntu1~18.04.2_amd64.deb ...
Unpacking python3.7 (3.7.5-2ubuntu1~18.04.2) ...
Selecting previously unselected package python3.7-venv.
Preparing to unpack .../python3.7-venv_3.7.5-2ubuntu1~18.04.2_amd64.deb ...
Unpacking python3.7-venv (3.7.5-2ubuntu1~18.04.2) ...
```

Clonado repositorio de la práctica y copia en repositorio de alumno

```
:~ $ git clone https://github.com/rgaleanog/todo-list-aws.git todo-list-aws
Cloning into 'todo-list-aws'...
remote: Enumerating objects: 55, done.
remote: Total 55 (delta 0), reused 0 (delta 0), pack-reused 55
Unpacking objects: 100% (55/55), done.
:~ $ cd todo-list-aws/
:~/todo-list-aws (master) $ ls
CHANGELOG.md  README.md  localEnvironment.json  pipelines  pytest.ini  samconfig.toml  src  template.yaml  test
```

```
:~/todo-list-aws (master) $ git remote -v
origin  https://github.com/rgaleanog/todo-list-aws.git (fetch)
origin  https://github.com/rgaleanog/todo-list-aws.git (push)
:~/todo-list-aws (master) $ git show-branch
[master] Update readme.md to change the order of the deploy
:~/todo-list-aws (master) $
```

```
:~/todo-list-aws (master) $ git remote set-url origin https://github.com/jialmanzal/todo-list-aws.git
:~/todo-list-aws (master) $ git remote -v
origin  https://github.com/jialmanzal/todo-list-aws.git (fetch)
origin  https://github.com/jialmanzal/todo-list-aws.git (push)
```



Token git

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

```
:~/todo-list-aws (develop) $ git commit -am "Se realiza primer commit a rama de desarrollo"
On branch develop
nothing to commit, working tree clean
:~/todo-list-aws (develop) $ git push origin develop
Username for 'https://github.com/jialmanzal/todo-list-aws.git': jialmanza
Password for 'https://jialmanza@github.com/jialmanzal/todo-list-aws.git':
Counting objects: 58, done.
Delta compression using up to 2 threads.
Compressing objects: 100% (53/53), done.
Writing objects: 100% (58/58), 17.00 KiB | 4.25 MiB/s, done.
Total 58 (delta 13), reused 0 (delta 0)
remote: Resolving deltas: 100% (13/13), done.
remote:
remote: Create a pull request for 'develop' on GitHub by visiting:
remote:     https://github.com/jialmanzal/todo-list-aws/pull/new/develop
remote:
To https://github.com/jialmanzal/todo-list-aws.git
 * [new branch]      develop -> develop
:~/todo-list-aws (develop) $ █
```

```
:~/todo-list-aws (develop) $ git tag -a 1.0.0 -m 'version 1.0.0.'
:~/todo-list-aws (develop) $ git push origin --tags
Username for 'https://github.com/jialmanzal/todo-list-aws.git': jialmanza
Password for 'https://jialmanza@github.com/jialmanzal/todo-list-aws.git':
Counting objects: 1, done.
Writing objects: 100% (1/1), 172 bytes | 172.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0)
To https://github.com/jialmanzal/todo-list-aws.git
 * [new tag]      1.0.0 -> 1.0.0
```

Validación de interfaz de SAM CLI (Command Line Interface) y análisis de repositorio

```
:~/todo-list-aws (develop) $ sam --version
SAM CLI, version 1.33.0
:~/todo-list-aws (develop) $ █
```

Ejecución de proyecto en entorno local (SAM CLI)

Crear red de docker

```
:~/todo-list-aws (develop) $ docker network ls
NETWORK ID      NAME      DRIVER      SCOPE
d1003ddc43e2    bridge    bridge    local
072e0d156618    host      host      local
ebcd2cf6ab65    none      null      local
:~/todo-list-aws (develop) $ docker network create sam
aa3da25bb345b101673fd9c76363448ae4a5797f1e64d07489cd6a7ad9eabaad
:~/todo-list-aws (develop) $ docker network ls
NETWORK ID      NAME      DRIVER      SCOPE
d1003ddc43e2    bridge    bridge    local
072e0d156618    host      host      local
ebcd2cf6ab65    none      null      local
aa3da25bb345    sam      bridge    local
:~/todo-list-aws (develop) $ █
```

Levantar contenedor de docker

```
:~/todo-list-aws (develop) $ docker run -p 8000:8000 --network sam --name dynamodb -d amazon/dynamodb-local
Unable to find image 'amazon/dynamodb-local:latest' locally
latest: Pulling from amazon/dynamodb-local
3a461b3ae562: Pull complete
14d349bd5978: Pull complete
3e361eec6409: Pull complete
Digest: sha256:07e740ad576acdcfdc48676f9a153a93a8e35436ea36942d4c14939caeca8851
Status: Downloaded newer image for amazon/dynamodb-local:latest
3dcc03d1be53128fca00bca0f7c12c1a030ee927a50bad066307e24b40d6d9a6
:~/todo-list-aws (develop) $ █
```

Crear tabla en dynamodb local

```
~/todo-list-aws (develop) $ export AWS_DEFAULT_REGION=us-east-1
~/todo-list-aws (develop) $ aws dynamodb create-table --table-name local-TodosDynamoDbTable --attribute-definitions AttributeName=id,AttributeType=S --key-schema AttributeName=id,KeyType=HASH --provisioned-throughput ReadCapacityUnits=1,WriteCapacityUnits=1 --endpoint-url http://localhost:8000
{
    "TableDescription": {
        "AttributeDefinitions": [
            {
                "AttributeName": "id",
                "AttributeType": "S"
            }
        ],
        "TableName": "local-TodosDynamoDbTable",
        "KeySchema": [
            {
                "AttributeName": "id",
                "KeyType": "HASH"
            }
        ],
        "TableStatus": "ACTIVE",
        "CreationDateTime": 1654970186.626,
        "ProvisionedThroughput": {
            "LastIncreaseDateTime": 0.0,
            "LastDecreaseDateTime": 0.0,
            "NumberOfDecreasesToday": 0,
            "ReadCapacityUnits": 1,
            "WriteCapacityUnits": 1
        },
        "TableSizeBytes": 0,
        "ItemCount": 0,
        "TableArn": "arn:aws:dynamodb:ddblocal:000000000000:table/local-TodosDynamoDbTable"
    }
}
~/todo-list-aws (develop) $ █
```

```
~/todo-list-aws (develop) $ aws dynamodb list-tables --endpoint-url http://localhost:8000
{
    "TableNames": [
        "local-TodosDynamoDbTable"
    ]
}
~/todo-list-aws (develop) $ █
```

Empaquetar proyecto con SAM

```
~/todo-list-aws (develop) $ sam build
SAM CLI now collects telemetry to better understand customer needs.

You can OPT OUT and disable telemetry collection by setting the
environment variable SAM_CLI_TELEMETRY=0 in your shell.
Thanks for your help!

Learn More: https://docs.aws.amazon.com/serverless-application-model/latest/developerguide/serverless-sam-telemetry.html

Building codeuri: /home/ubuntu/todo-list-aws/src runtime: python3.7 metadata: {} architecture: x86_64 functions: ['CreateTodoFunction', 'ListTodosFunction', 'GetTodoFunction', 'UpdateTodoFunction', 'DeleteTodoFunction']
Running PythonPipBuilder:ResolveDependencies
Running PythonPipBuilder:CopySource

Build Succeeded

Built Artifacts : .aws-sam/build
Built Template : .aws-sam/build/template.yaml

Commands you can use next
=====
[*] Invoke Function: sam local invoke
[*] Deploy: sam deploy --guided

SAM CLI update available (1.52.0); (1.33.0 installed)
To download: https://docs.aws.amazon.com/serverless-application-model/latest/developerguide/serverless-sam-cli-install.html
~/todo-list-aws (develop) $ █
```

Levantar la API localmente

```
voclabs:~/todo-list-aws (develop) $ sam local start-api -port 8081 --env-vars localEnvironment.json --docker-network sam
Mounting GetTodoFunction at http://127.0.0.1:8081/todos/{id} [GET]
Mounting UpdateTodoFunction at http://127.0.0.1:8081/todos/{id} [PUT]
Mounting DeleteTodoFunction at http://127.0.0.1:8081/todos/{id} [DELETE]
Mounting ListTodosFunction at http://127.0.0.1:8081/todos [GET]
Mounting CreateTodoFunction at http://127.0.0.1:8081/todos [POST]
You can now browse to the above endpoints to invoke your functions. You do not need to restart/reload SAM CLI while working on your functions, changes will be reflected instantly/automatically. You only need to restart SAM CLI if you update your AWS SAM template
2022-06-11 18:16:14 * Running on http://127.0.0.1:8081/ (Press CTRL+C to quit)
■
```

Create

curl -X POST http://127.0.0.1:8081/todos --data '{ "text":"Learn Serverless" }'

```
:~/todo-list-aws (develop) $ curl -X POST http://127.0.0.1:8081/todos --data '{ "text":"Learn Serverless" }'
{"statusCode": 200, "body": "{\"id\": \"ddadb91c-e9b2-11ec-bf76-0242ac110002\", \"text\": \"Learn Serverless\", \"checked\": false, \"createdAt\": \"1654971497.403602\", \"updatedAt\": \"1654971497.403602\"}":~/todo-list-aws (develop) $ ■
```

```
:~/todo-list-aws (develop) $ curl -X POST http://127.0.0.1:8081/todos --data '{ "text":"Learn Serverless segundo registro" }'
{"statusCode": 200, "body": "{\"id\": \"01a7bcd2-e9b3-11ec-aa01-0242ac110002\", \"text\": \"Learn Serverless segundo registro\", \"checked\": false, \"createdAt\": \"1654971557.776818\", \"updatedAt\": \"1654971557.776818\"}":~/todo-list-aws (develop) $ ■
```

List

curl http://127.0.0.1:8081/todos

```
[{"checked": false, "createdAt": "1654971557.776818", "id": "01a7bcd2-e9b3-11ec-aa01-0242ac110002", "text": "Learn Serverless segundo registro", "updatedAt": "1654971557.776818"}, {"checked": false, "createdAt": "1654971497.403602", "id": "ddadb91c-e9b2-11ec-bf76-0242ac110002", "text": "Learn Serverless", "updatedAt": "1654971497.403602"}]
```

```
:~/todo-list-aws (develop) $ curl http://127.0.0.1:8081/todos
[{"checked": false, "createdAt": "1654971557.776818", "id": "01a7bcd2-e9b3-11ec-aa01-0242ac110002", "text": "Learn Serverless segundo registro", "updatedAt": "1654971557.776818"}, {"checked": false, "createdAt": "1654971497.403602", "id": "ddadb91c-e9b2-11ec-bf76-0242ac110002", "text": "Learn Serverless", "updatedAt": "1654971497.403602"}]:~/todo-list-aws (develop) $ ■
```

Get

curl http://127.0.0.1:8081/todos/01a7bcd2-e9b3-11ec-aa01-0242ac110002

```
:~/todo-list-aws (develop) $ curl http://127.0.0.1:8081/todos/01a7bcd2-e9b3-11ec-aa01-0242ac110002
{"checked": false, "createdAt": "1654971557.776818", "id": "01a7bcd2-e9b3-11ec-aa01-0242ac110002", "text": "Learn Serverless segundo registro", "updatedAt": "1654971557.776818"}:~/todo-list-aws (develop) $ ■
```

curl http://127.0.0.1:8081/todos/ddadb91c-e9b2-11ec-bf76-0242ac110002

```
~/todo-list-aws (develop) $ curl http://127.0.0.1:8081/todos/ddadb91c-e9b2-11ec-bf76-0242ac110002
{"checked": false, "createdAt": "1654971497.403602", "id": "ddadb91c-e9b2-11ec-bf76-0242ac110002", "text": "Learn Serverless", "updatedAt": "1654971497.403602"}:~/todo-list-aws (develop) $ █
```

Update

```
curl -X PUT http://127.0.0.1:8081/todos/ddadb91c-e9b2-11ec-bf76-0242ac110002 --data '{
"text": "Learn Serverless", "checked": true }'
```

```
~/todo-list-aws (develop) $ curl -X PUT http://127.0.0.1:8081/todos/ddadb91c-e9b2-11ec-bf76-0242ac110002 --data '{ "text": "Learn Serverless", "checked": true }'
{"createdAt": "1654971497.403602", "checked": true, "id": "ddadb91c-e9b2-11ec-bf76-0242ac110002", "text": "Learn Serverless", "updatedAt": 1654971968746}:~/todo-list-aws (develop) $ █
```

Delete

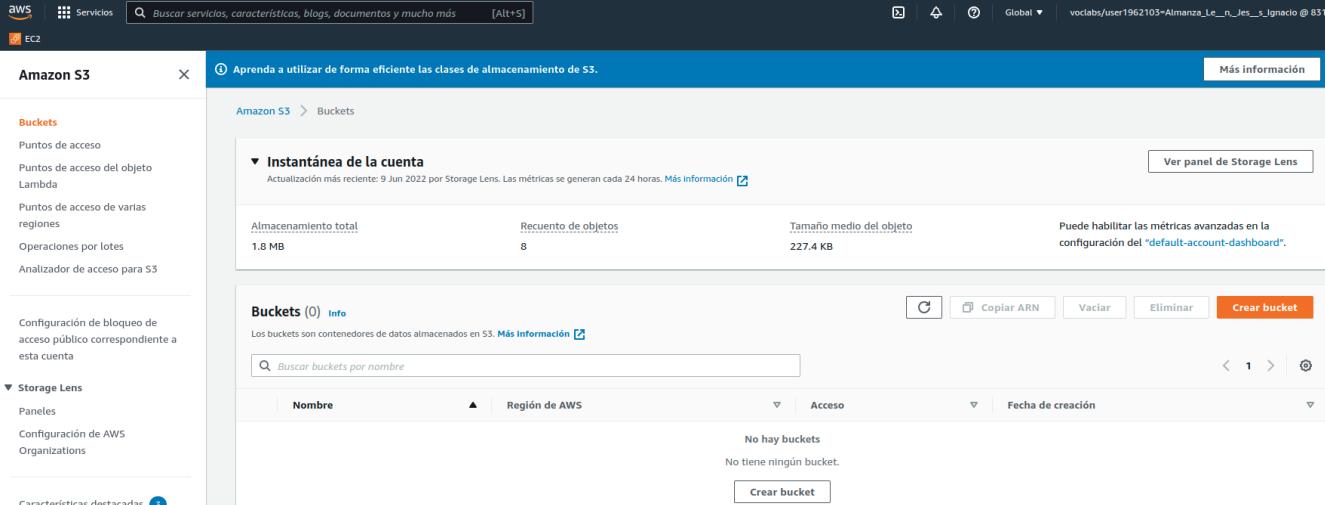
```
curl -X DELETE http://127.0.0.1:8081/todos/01a7bcd2-e9b3-11ec-aa01-0242ac110002
```

```
~/todo-list-aws (develop) $ curl -X DELETE http://127.0.0.1:8081/todos/01a7bcd2-e9b3-11ec-aa01-0242ac110002
~/todo-list-aws (develop) $ █
```

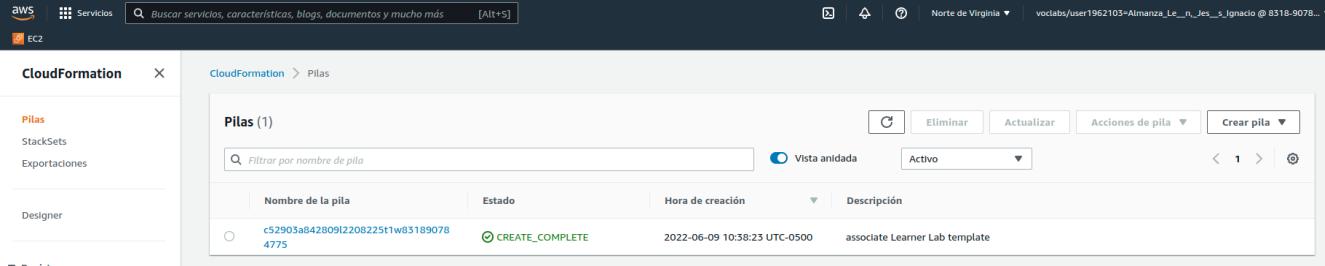
Despliegue manual de aplicación SAM en Amazon Web Services

Despliegue de la aplicación (Deploy Stage).

Original



The screenshot shows the AWS S3 service page. On the left, there's a sidebar with links for Buckets, Storage Lens, and CloudWatch Metrics. The main content area has a title "Aprenda a utilizar de forma eficiente las clases de almacenamiento de S3." Below it, there's a section titled "Instantánea de la cuenta" with metrics like "Almacenamiento total" (1.8 MB), "Recuento de objetos" (8), and "Tamaño medio del objeto" (227.4 KB). A note says "Puede habilitar las métricas avanzadas en la configuración del 'default-account-dashboard'". At the bottom, there's a table for "Buckets (0)" with columns for Nombre, Región de AWS, Acceso, and Fecha de creación. A message says "No hay buckets" and "No tiene ningún bucket." with a "Crear bucket" button.



The screenshot shows the AWS CloudFormation service page. On the left, there's a sidebar with links for Pilas, StackSets, Exportaciones, Designer, and Registro. The main content area has a title "CloudFormation > Pilas". Below it, there's a table titled "Pilas (1)" with columns for Nombre de la pila, Estado, Hora de creación, and Descripción. One entry is listed: "c52905a84280912200225t1w85189078 4775" with Estado "CREATE_COMPLETE", Hora de creación "2022-06-09 10:58:25 UTC-0500", and Descripción "associate Learner Lab template". There are buttons for Eliminar, Actualizar, and Acciones de pila.

Cambios

```

:~/todo-list-aws (develop) $ sam deploy --guided

Configuring SAM deploy
=====
Looking for config file [samconfig.toml] : Found
Reading default arguments : Success

Setting default arguments for 'sam deploy'
=====
Stack Name [todo-list-aws]: todo-list-aws
AWS Region [us-east-1]: us-east-1
Parameter Stage [us-east-1]: default
#Shows you resources changes to be deployed and require a 'Y' to initiate deploy
Confirm changes before deploy [Y/n]: y
#SAM needs permission to be able to create roles to connect to the resources in your template
Allow SAM CLI IAM role creation [Y/n]: y
CreateTodoFunction may not have authorization defined, Is this okay? [y/N]: y
ListTodosFunction may not have authorization defined, Is this okay? [y/N]: y
GetTodoFunction may not have authorization defined, Is this okay? [y/N]: y
UpdateTodoFunction may not have authorization defined, Is this okay? [y/N]: y
DeleteTodoFunction may not have authorization defined, Is this okay? [y/N]: y
Save arguments to configuration file [Y/n]: y
SAM configuration file [samconfig.toml]: samconfig.toml
SAM configuration environment [default]: default

Looking for resources needed for deployment:
Managed S3 bucket: aws-sam-cli-managed-default-samclisourcebucket-s7z35tofhv3c
A different default S3 bucket can be set in samconfig.toml

Saved arguments to config file
Running 'sam deploy' for future deployments will use the parameters saved above.
The above parameters can be changed by modifying samconfig.toml
Learn more about samconfig.toml syntax at
https://docs.aws.amazon.com/serverless-application-model/latest/developerguide/serverless-sam-cli-config.html

```

```

Running 'sam deploy' for future deployments will use the parameters saved above.
The above parameters can be changed by modifying samconfig.toml
Learn more about samconfig.toml syntax at
https://docs.aws.amazon.com/serverless-application-model/latest/developerguide/serverless-sam-cli-config.html

File with same data already exists at todo-list-aws/6f294efba71da4704ae54cf23e8dbf91, skipping upload
File with same data already exists at todo-list-aws/6f294efba71da4704ae54cf23e8dbf91, skipping upload
File with same data already exists at todo-list-aws/6f294efba71da4704ae54cf23e8dbf91, skipping upload
File with same data already exists at todo-list-aws/6f294efba71da4704ae54cf23e8dbf91, skipping upload
File with same data already exists at todo-list-aws/6f294efba71da4704ae54cf23e8dbf91, skipping upload

Deploying with following values
=====
Stack name : todo-list-aws
Region : us-east-1
Confirm changeset : True
Deployment s3 bucket : aws-sam-cli-managed-default-samclisourcebucket-s7z35tofhv3c
Capabilities : ["CAPABILITY_IAM"]
Parameter overrides : {"Stage": "default"}
Signing Profiles : {}

Initiating deployment
=====
File with same data already exists at todo-list-aws/38c8fe4873b47d3366e46adba82a9286.template, skipping upload

Waiting for changeset to be created..

CloudFormation stack changeset
-----
Operation LogicalResourceId ResourceType Replacement
-----+ Add CreateTodoFunctionCreatePermission AWS::Lambda::Permission N/A
+ Add CreateTodoFunction AWS::Lambda::Function N/A
+ Add DeleteTodoFunctionCreatePermission AWS::Lambda::Permission N/A
Prod
```

Salida en LogSamdeploy_default.txt

The screenshot shows the AWS CloudFormation console with the 'Stacks' section selected. It lists three stacks:

Nombre	Estado	Hora de creación	Descripción
todo-list-aws	CREATE_COMPLETE	2022-06-11 13:50:21 UTC-0500	todo-list-aws Application TODO-LIST with SAM format
aws-sam-cli-managed-default	CREATE_COMPLETE	2022-06-11 13:43:55 UTC-0500	Managed Stack for AWS SAM CLI
c52903a842809l2208225t1w831890784775	CREATE_COMPLETE	2022-06-09 10:38:23 UTC-0500	associate Learner Lab template

The screenshot shows the AWS S3 console with the 'Buckets' section selected. It lists one bucket:

Nombre	Región de AWS	Acceso	Fecha de creación
aws-sam-cli-managed-default-samclisourcebucket-s7z35tofhv3c	EE. UU. Este (Norte de Virginia) us-east-1	Los objetos pueden ser públicos	11 Jun 2022 1:44:14 PM -05

The screenshot shows the AWS S3 console with the 'Objects' section selected for the bucket 'aws-sam-cli-managed-default-samclisourcebucket-s7z35tofhv3c'. It lists one object:

Nombre	Tipo	Última modificación	Tamaño	Clase de almacenamiento
todo-list-aws/	Carpeta	-	-	-

CloudFormation > Pilas > todo-list-aws

todo-list-aws

Información de la pila Eventos Recursos Salidas Parámetros Plantilla Conjuntos de cambios Eliminar Actualizar Acciones de pila

Información general

ID de pila arn:aws:cloudformation:us-east-1:831890784775:stack/todo-list-aws/969416d0-e9b6-11ec-b119-0a4baade0df1	Descripción todo-list-aws Application TODO-LIST with SAM format
Estado CREATE_COMPLETE	Motivo del estado -
Pila raíz -	Pila principal -
Hora de creación 2022-06-11 13:50:21 UTC-0500	Hora de eliminación -
Hora de actualización 2022-06-11 13:43:53 UTC-0500	
Estado de desviación NOT_CHECKED	Hora de la última comprobación de desviaciones -
Protección de terminación Deshabilitado	Rol de IAM -

Pilas (3) C

Filtrar por nombre de pila

Activo Vista anidada 1 >

- todo-list-aws CREATE_COMPLETE
 - aws-sam-cli-managed-default CREATE_COMPLETE
 - c52903a84280912208225t1w831890784775 CREATE_COMPLETE

todo-list-aws		Eliminar	Actualizar	Acciones de pila		
Información de la pila	Eventos	Recursos	Salidas	Parámetros	Plantilla	Conjuntos de cambios
Salidas (6)						
<input type="text"/> Buscar resultados						
Clave	▲	Valor	▼	Descripción	▼	⋮
BaseUrlApi		https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod		Base URL of API		⋮
CreateTodoApi		https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/		API Gateway endpoint URL for \${opt:stage} stage for Create TODO		⋮
DeleteTodoApi		https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/{id}		API Gateway endpoint URL for \${opt:stage} stage for Delete TODO		⋮
GetTodoApi		https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/{id}		API Gateway endpoint URL for \${opt:stage} stage for Get TODO		⋮
ListTodosApi		https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos		API Gateway endpoint URL for \${opt:stage} stage for List TODO		⋮
UpdateTodoAp i		https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/{id}		API Gateway endpoint URL for \${opt:stage} stage for Update TODO		⋮

Endpoints

default:

- Create <https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/>
- List <https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos>
- Get <https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/{id}>
- Update <https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/{id}>
- Delete <https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/{id}>

Staging:

- Create <https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/>
- List <https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos>
- Get <https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/{id}>
- Update <https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/{id}>

Delete <https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/{id}>

Production:

Create <https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos/>

List <https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos>

Get <https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos/{id}>

Update <https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos/{id}>

Delete <https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos/{id}>

Pruebas Default

Create

```
curl -X POST https://kjvtarfjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/ --data '{ "text": "Learn Serverless" }'
```

```
:[~/todo-list-aws (develop) $ curl -X POST https://kjvtarfjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/ --data '{ "text": "Learn Serverless" }' {"statusCode": 200, "body": "{\"id\": \"ef36ed84-e9bc-11ec-95d2-5a559caff6c1\", \"text\": \"Learn Serverless\", \"checked\": false, \"createdAt\": \"1654975821.672089\", \"updatedAt\": \"1654975821.672089\""}:[~/todo-list-aws (develop) $ ]
```

List

```
curl https://kjvtarfjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos
```

```
[{"checked": false, "createdAt": "1654975821.672089", "text": "Learn Serverless", "id": "ef36ed84-e9bc-11ec-95d2-5a559caff6c1", "updatedAt": "1654975821.672089"}]
```

```
~/todo-list-aws (develop) $ curl https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos [{"checked": false, "createdAt": "1654975821.672089", "text": "Learn Serverless", "id": "ef36ed84-e9bc-11ec-95d2-5a559caff6c1", "updatedAt": "1654975821.672089"}]:~/todo-list-aws (develop) $
```

Get

```
curl https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/ef36ed84-e9bc-11ec-95d2-5a559caff6c1
```

```
~/todo-list-aws (develop) $ curl https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/ef36ed84-e9bc-11ec-95d2-5a559caff6c1 {"checked": false, "createdAt": "1654975821.672089", "text": "Learn Serverless", "id": "ef36ed84-e9bc-11ec-95d2-5a559caff6c1", "updatedAt": "1654975821.672089"}:~/todo-list-aws (develop) $
```

Update

```
curl -X PUT https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/ef36ed84-e9bc-11ec-95d2-5a559caff6c1 --data '{ "text": "Learn Serverless", "checked": true }'
```

```
~/todo-list-aws (develop) $ curl -X PUT https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/ef36ed84-e9bc-11ec-95d2-5a559caff6c1 --data '{ "text": "Learn Serverless", "checked": true }' {"checked": true, "createdAt": "1654975821.672089", "text": "Learn Serverless", "id": "ef36ed84-e9bc-11ec-95d2-5a559caff6c1", "updatedAt": 1654976052566}:~/todo-list-aws (develop) $
```

Delete

```
curl -X DELETE https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/ef36ed84-e9bc-11ec-95d2-5a559caff6c1
```

```
~/todo-list-aws (develop) $ curl -X DELETE https://kjvtofjwxe.execute-api.us-east-1.amazonaws.com/Prod/todos/ef36ed84-e9bc-11ec-95d2-5a559caff6c1:~/todo-list-aws (develop) $
```

Pruebas Staging

Create

```
curl -X POST https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/ --data '{ "text": "Learn Serverless" }'
```

```
:~ $ curl -X POST https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/ --data '{ "text": "Learn Serverless" }' {"statusCode": 200, "body": "{\"id\": \"23065e64-e9be-11ec-97cf-560c5ba9eec7\", \"text\": \"Learn Serverless\", \"checked\": false, \"createdAt\": \"1654976338.1121678\", \"updatedAt\": \"1654976338.1121678\"}":~ $ █
```

List

```
curl https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos
```

```
[{"checked": false, "createdAt": "1654976338.1121678", "text": "Learn Serverless", "id": "23065e64-e9be-11ec-97cf-560c5ba9eec7", "updatedAt": "1654976338.1121678"}]
```

```
:~ $ curl https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos [{"checked": false, "createdAt": "1654976338.1121678", "text": "Learn Serverless", "id": "23065e64-e9be-11ec-97cf-560c5ba9eec7", "updatedAt": "1654976338.1121678"}]:~ $ █
```

Get

```
curl https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/23065e64-e9be-11ec-97cf-560c5ba9eec7
```

```
:~ $ curl https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/23065e64-e9be-11ec-97cf-560c5ba9eec7 {"checked": false, "createdAt": "1654976338.1121678", "text": "Learn Serverless", "id": "23065e64-e9be-11ec-97cf-560c5ba9eec7", "updatedAt": "1654976338.1121678"}:~ $ █
```

Update

```
curl -X PUT https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/23065e64-e9be-11ec-97cf-560c5ba9eec7 --data '{ "text": "Learn Serverless", "checked": true }'
```

```
:~ $ curl -X PUT https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/23065e64-e9be-11ec-97cf-560c5ba9eec7 --data '{ "text":"Learn Serverless", "checked": true }'  
{"checked": true, "createdAt": "1654976338.1121678", "text": "Learn Serverless", "id": "23065e64-e9be-11ec-97cf-560c5ba9eec7", "updatedAt": 1654976464444}:~ $
```

Delete

curl -X DELETE https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/23065e64-e9be-11ec-97cf-560c5ba9eec7

```
:~ $ curl -X DELETE https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/23065e64-e9be-11ec-97cf-560c5ba9eec7  
:~ $
```

Pruebas Produccion

Create

```
curl -X POST https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos/ --data '{ "text": "Learn Serverless" }'
```

```
:~ $ curl -X POST https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos/ --data '{ "text": "Learn Serverless" }' {"statusCode": 200, "body": "{\"id\": \"c2b8f318-e9be-11ec-85ff-3ef97360dfbe\", \"text\": \"Learn Serverless\", \"checked\": false, \"createdAt\": \"1654976606.0205352\", \"updatedAt\": \"1654976606.0205352\"}":~ $ █
```

List

```
curl https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos
```

```
[{"checked": false, "createdAt": "1654976606.0205352", "text": "Learn Serverless", "id": "c2b8f318-e9be-11ec-85ff-3ef97360dfbe", "updatedAt": "1654976606.0205352"}]
```

```
:~ $ curl https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos [{"checked": false, "createdAt": "1654976606.0205352", "text": "Learn Serverless", "id": "c2b8f318-e9be-11ec-85ff-3ef97360dfbe", "updatedAt": "1654976606.0205352"}]:~ $ █
```

Get

```
curl https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos/c2b8f318-e9be-11ec-85ff-3ef97360dfbe
```

```
:~ $ curl https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos/c2b8f318-e9be-11ec-85ff-3ef97360dfbe {"checked": false, "createdAt": "1654976606.0205352", "text": "Learn Serverless", "id": "c2b8f318-e9be-11ec-85ff-3ef97360dfbe", "updatedAt": "1654976606.0205352"}:~ $ █
```

Update

```
curl -X PUT https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/c2b8f318-e9be-11ec-85ff-3ef97360dfbe --data '{ "text": "Learn Serverless", "checked": true }'
```

```
:~ $ curl -X PUT https://ypc9q2f7e2.execute-api.us-east-1.amazonaws.com/Prod/todos/c2b8f318-e9be-11ec-85ff-3ef97360dfbe --data '{ "text": "Learn Serverless", "checked": true }' {"checked": true, "text": "Learn Serverless", "id": "c2b8f318-e9be-11ec-85ff-3ef97360dfbe", "updatedAt": 1654976738589}:~ $ █
```

Delete

```
curl -X DELETE https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos/c2b8f318-e9be-11ec-85ff-3ef97360dfbe
```

```
:~ $ curl -X DELETE https://l0il3f8wg1.execute-api.us-east-1.amazonaws.com/Prod/todos/c2b8f318-e9be-11ec-85ff-3ef97360dfbe
:~ $ █
```

Creación de pipelines de Jenkins para despliegue de arquitectura completa

Se ajustan en los archivos los parámetros para que la prueba este acorde a lo esperado:

- * Jenkinsfile se cambia el valor para unhealthyThreshold de 70 a 80
- * Para RAD_ERRORS se cambia el parámetro .nc por -nb

```
voclabs:~/todo-list-aws (develop) $ git commit -am "Se realiza ajuste de valores mínimos de calidad"
[develop 8365738] Se realiza ajuste de valores mínimos de calidad
Committer: Ubuntu <ubuntu@ip-172-31-88-44.ec2.internal>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly:

git config --global user.name "Your Name"
git config --global user.email you@example.com

After doing this, you may fix the identity used for this commit with:

git commit --amend --reset-author

5 files changed, 24 insertions(+), 8 deletions(-)
create mode 100644 "samconfig.tom\303l"
voclabs:~/todo-list-aws (develop) $ █
```

```
voclabs:~/todo-list-aws (develop) $ git push origin develop --tags
Username for 'https://github.com/jialmanzal/todo-list-aws.git': jialmanza
Password for 'https://jialmanza@github.com/jialmanzal/todo-list-aws.git':
Counting objects: 10, done.
Delta compression using up to 2 threads.
Compressing objects: 100% (10/10), done.
Writing objects: 100% (10/10), 1.35 KiB | 1.35 MiB/s, done.
Total 10 (delta 6), reused 0 (delta 0)
remote: Resolving deltas: 100% (6/6), completed with 6 local objects.
To https://github.com/jialmanzal/todo-list-aws.git
    727ffd2..8365738  develop -> develop
    * [new tag]      1.0.1 -> 1.0.1
voclabs:~/todo-list-aws (develop) $ █
```

Configuración pipeline Staging

General Build Triggers Advanced Project Options Pipeline

Descripción

Pipeline encargado de la autorización de despliegue en ambiente STAGING

[Plain text] [Visualizar](#)

Desechar ejecuciones antiguas ?
 Do not allow concurrent builds
 Do not allow the pipeline to resume if the controller restarts
 Esta ejecución debe parametrizarse ?

Parámetro de cadena [X](#)

?
Nombre ?

ENVIROMENT

Valor por defecto ?

staging

Descripción ?

Variable para definir el entorno de ejecución

[Plain text] [Visualizar](#)

Trim the string ?

GitHub project

Project url ?

<https://github.com/jialmanzal/todo-list-aws.git/>

Pipeline speed/durability override ?

Preserve stashes from completed builds ?

Throttle builds ?

Build Triggers

Construir tras otros proyectos ?

Ejecutar periódicamente ?

GitHub hook trigger for GITScm polling ?

Consultar repositorio (SCM) ?

Desactivar la ejecución ?

Periodo de espera ?

Lanzar ejecuciones remotas (ejem: desde 'scripts') ?

Advanced Project Options



Jenkins Credentials Provider: Jenkins

Add Credentials

Domain

Global credentials (unrestricted)

Kind

Username with password

Scope ?

Global (Jenkins, nodes, items, all child items, etc)

Username ?

jialmanza

Treat username as secret ?

Password ?

ID ?

Description ?

Pipeline

Definition

Pipeline script from SCM

SCM ?

Git

Repositories ?

Repository URL ?

<https://github.com/jialmanzal/todo-list-aws.git/>

Credentials ?

jialmanza/*********

Add

Avanzado...

Add Repository

Branches to build ?

Branch Specifier (blank for 'any') ?

*/develop

X

Allgemein

Script Path ?

pipelines/PIPELINE-FULL-STAGING/Jenkinsfile

Lightweight checkout ?

Pipeline Syntax

Guardar

Apply

Prueba pipeline FullStaging

Pipeline PIPELINE-FULL-STAGING

Pipeline encargado de la autorización de despliegue en ambiente STAGING

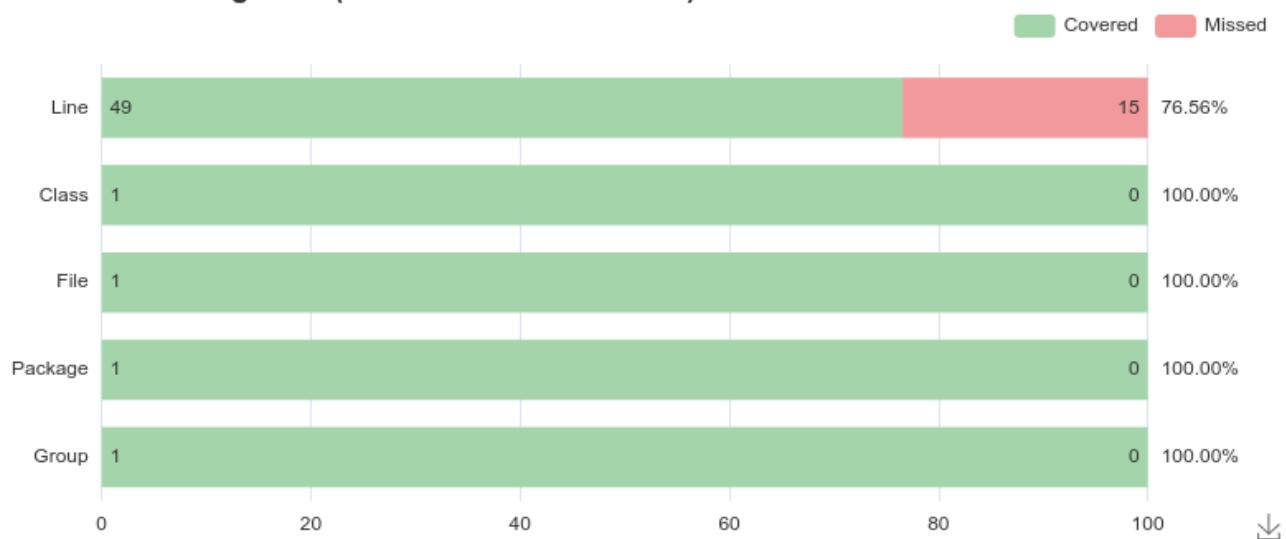


Stage View

	Declarative: Checkout SCM	SetUp	Test	Build	Deploy	Integration Test after deploy	Declarative: Post Actions
Average stage times:	610ms	24s	8s	123ms	78ms	86ms	210ms
#1 Jun 12 10:16 No Changes	610ms	24s	8s failed	123ms failed	78ms Failed	86ms failed	210ms

Code Coverage

cobertura: coverage.xml (click to see more details)



Enter an item name

PIPELINE-FULL-PRODUCTION

» Required field



Crear un proyecto de estilo libre

Esta es la característica principal de Jenkins, la de ejecutar el proyecto combinando cualquier tipo de repositorio (git, hg, svn...) con cualquier tipo de tarea (compilar, empaquetar, ejecutar tests...). Por tanto se podrá tanto compilar y empaquetar software, como ejecutar cualquier proceso que requiera de un entorno de construcción.



Pipeline

Gestiona actividades de larga duración que pueden abarcar varios agentes de construcción. Apropiado para proyectos más complejas que no se pueden articular fácilmente con tareas de tipo freestyle.



Crear un proyecto multi-configuración

Adecuado para proyectos que requieran un gran número de configuraciones diferentes, como testear en diferentes entornos.



Folder

Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which lists items, this project type can contain other projects as long as they are in different folders.

Pipeline PIPELINE-FULL-STAGING

Pipeline encargado de la autorización de despliegue en ambiente STAGING

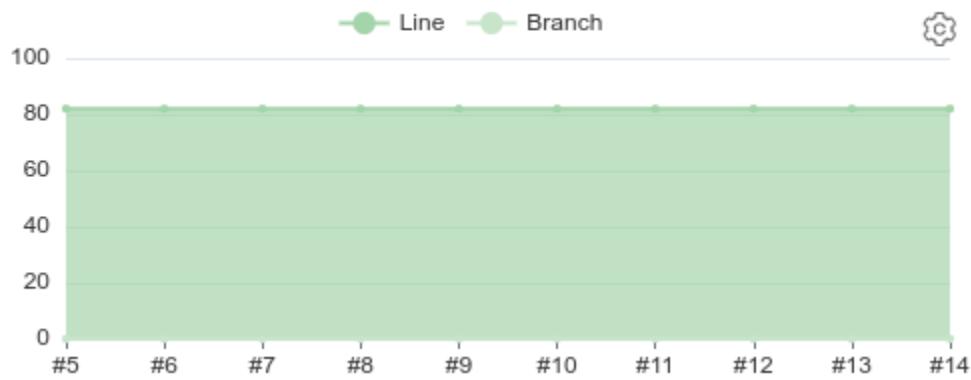


Recent Changes

Stage View

	Declarative: Checkout SCM	SetUp	Test	Build	Deploy	Integration Test after deploy	Declarative: Post Actions
Average stage times: (Average full run time: ~57s)	346ms	21s	5s	4s	1s	1s	118ms
#14 Jun 12 13:37 1 commit	421ms	21s	5s	4s	8s	16s	138ms
#13 Jun 12 13:34 1 commit	382ms	21s	5s	4s	843ms failed	58ms failed	113ms
#12 Jun 12 13:32 1 commit	374ms	20s	5s	4s	843ms failed	46ms failed	109ms
#11							

Code Coverage Trend



Pipeline PIPELINE-FULL-PRODUCTION

Pipeline encargado de la automatización del despliegue en el ambiente de producción.



Recent Changes

Stage View



Enlaces permanentes

Pipeline PIPELINE-FULL-CD

pipeline encargado de enganchar los pipelines de staging y production



Recent Changes

Stage View

	Declarative: Checkout SCM	Staging	Merge	Production	Declarative: Post Actions
Average stage times: (Average full run time: ~2min 4s)	573ms	1min 3s	879ms	13s	115ms
#5 Jun 13 00:25 No Changes	502ms	1min 8s	1s	53s	124ms
#4 Jun 13 00:12 No Changes	559ms	56s	718ms failed	47ms failed	97ms
#3 Jun 13 00:07 No Changes	483ms	55s	733ms failed	46ms failed	112ms
#2 Jun 13 00:04 No Changes	748ms	1min 15s	999ms Failed	87ms Failed	130ms
#1 Jun 12 23:26 No Changes					