

## Terraform AWS.

AMI Id según región.

<https://wiki.centos.org/Cloud/AWS>

**terraform init**

```
DevLider@DESKTOP-1D8DAHL MINGW64 ~/Desktop/DevOps/test-sre-sg/aws (master)
$ terraform init

Initializing the backend...

Initializing provider plugins...
- checking for available provider plugins...
- Downloading plugin for provider "aws" (hashicorp/aws) 3.1.0...

The following providers do not have any version constraints in configuration,
so the latest version was installed.

To prevent automatic upgrades to new major versions that may contain breaking
changes, it is recommended to add version = "... constraints to the
corresponding provider blocks in configuration, with the constraint strings
suggested below.

* provider.aws: version = "~> 3.1"

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
```

## terraform plan

```
$ terraform plan
Refreshing Terraform state in-memory prior to plan...
The refreshed state will be used to calculate this plan, but will not be
persisted to local or remote state storage.
```

```
-----
An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
+ create
```

Terraform will perform the following actions:

```
# aws_instance.web-sgeq will be created
+ resource "aws_instance" "web-sgeq" {
+   ami              = "ami-000e7ce4dd68e7a11"
+   arn              = (known after apply)
+   associate_public_ip_address = (known after apply)
+   availability_zone = (known after apply)
+   cpu_core_count   = (known after apply)
+   cpu_threads_per_core = (known after apply)
+   get_password_data = false
+   host_id          = (known after apply)
+   id              = (known after apply)
+   instance_state   = (known after apply)
+   instance_type     = "t3.micro"
+   ipv6_address_count = (known after apply)
+   ipv6_addresses   = (known after apply)
+   key_name         = "terrafoorm-key"
+   outpost_arn      = (known after apply)
+   password_data    = (known after apply)
+   placement_group  = (known after apply)
+   primary_network_interface_id = (known after apply)
+   private_dns      = (known after apply)
+   private_ip       = (known after apply)
+   public_dns       = (known after apply)
+   public_ip        = (known after apply)
+   secondary_private_ips = (known after apply)
+   security_groups   = (known after apply)
+   source_dest_check = true
+   subnet_id        = (known after apply)
}
```

## terraform apply

```
DevLider@DESKTOP-1D8DAHL MINGW64 ~/Desktop/DevOps/test-sre-sg/aws (master)
$ terraform apply
```

```
An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
+ create
```

Terraform will perform the following actions:

```
# aws_instance.web-sgeq will be created
+ resource "aws_instance" "web-sgeq" {
+   ami              = "ami-000e7ce4dd68e7a11"
+   arn              = (known after apply)
+   associate_public_ip_address = (known after apply)
+   availability_zone = (known after apply)
+   cpu_core_count   = (known after apply)
+   cpu_threads_per_core = (known after apply)
+   get_password_data = false
+   host_id          = (known after apply)
+   id              = (known after apply)
+   instance_state   = (known after apply)
+   instance_type     = "t3.micro"
+   ipv6_address_count = (known after apply)
+   ipv6_addresses   = (known after apply)
+   key_name         = "terrafoorm-key"
+   outpost_arn      = (known after apply)
+   password_data    = (known after apply)
+   placement_group  = (known after apply)
+   primary_network_interface_id = (known after apply)
+   private_dns      = (known after apply)
+   private_ip       = (known after apply)
+   public_dns       = (known after apply)
+   public_ip        = (known after apply)
+   secondary_private_ips = (known after apply)
+   security_groups   = (known after apply)
+   source_dest_check = true
+   subnet_id        = (known after apply)
+   tags             = {
+     "Name" = "test-terraform"
+   }
+   tenancy          = (known after apply)
+   volume_tags      = (known after apply)
+   vpc_security_group_ids = (known after apply)
}

+ ebs_block_device {
+   delete_on_termination = (known after apply)
+   device_name           = (known after apply)
+   encrypted             = (known after apply)
+   iops                  = (known after apply)
+   kms_key_id            = (known after apply)
+   snapshot_id           = (known after apply)
}
```

```

aws_key_pair.keypairterra: Creating...
aws_security_group.allow_ssh_anywhere: Creating...
aws_security_group.allow_http_anywhere: Creating...
aws_key_pair.keypairterra: Creation complete after 1s [id=terrafoorm-key]
aws_security_group.allow_http_anywhere: Creation complete after 5s [id=sg-0b57f9cc086b723a5]
aws_security_group.allow_ssh_anywhere: Creation complete after 6s [id=sg-04e834486bef64587]
aws_instance.web-sgeq: Creating...
aws_instance.web-sgeq: Still creating... [10s elapsed]
aws_instance.web-sgeq: Creation complete after 18s [id=i-058ff244682382311]

Apply complete! Resources: 4 added, 0 changed, 0 destroyed.

Outputs:
instance_public_ip = 13.59.82.78

```

Instancia creada:

Filter by tags and attributes or search by keyword

Name

Instance ID

Instance Type

Availability Zone

Instance State

Status Checks

Alarm Status

Public DNS (IPv4)

IPv4 Public IP

IPv6 IPs

Key Name

Monitoring

Labels

test-terraform

i-058ff244682382311

t3.micro

us-east-2c

running

2/2 checks ...

None

ec2-13-59-82-78.us-east-2.compute.amazonaws.com

13.59.82.78

-

terrafoorm-key

disabled

test-terraform

i-061fc27631b443cd4

t3.micro

us-east-2c

terminated

None

-

-

terrafoorm-key

disabled

Instance: i-058ff244682382311 (test-terraform)

Public DNS: ec2-13-59-82-78.us-east-2.compute.amazonaws.com

Description

Status Checks

Monitoring

Tags

Instance ID

i-058ff244682382311

Instance state

running

Instance type

t3.micro

Finding

Opt-in to AWS Compute Optimizer for recommendations. [Learn more](#)

Private DNS

ip-172-31-47-1.us-east-2.compute.internal

Private IPs

172.31.47.1

Secondary private IPs

VPC ID

vpc-990802f1

Subnet ID

subnet-97b764db

Network interfaces

eth0

IAM role

-

Key pair name

terrafoorm-key

Owner

097659089909

Public DNS (IPv4)

ec2-13-59-82-78.us-east-2.compute.amazonaws.com

IPv4 Public IP

13.59.82.78

IPv6 IPs

-

Elastic IPs

Availability zone

us-east-2c

Security groups

allow\_ssh\_anywhere, allow\_http\_anywhere, view inbound rules, view outbound rules

Scheduled events

No scheduled events

AMI ID

CentOS 8.2.2004 x86\_64 (ami-000e7ce4dd58a7a11)

Platform details

Linux/UNIX

Usage operation

RunInstances

Source/dest. check

True

T2/T3 Unlimited

Enabled

EBS-optimized

False

IP de la Instancia: <http://13.59.82.78/>

Usuario por defecto de la AMI es centos.

Para poderse loguear se asignó una llave.

```

resource "aws_key_pair" "keypairterra" {
  key_name     = "terrafoorm-key"
  public_key   = "ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCA...
}

```

En public key se asigna la llave ssh que haya en el equipo.

```
$ ssh centos@13.59.82.78
Enter passphrase for key '/c/Users/DevLider/.ssh/id_rsa':
Activate the web console with: systemctl enable --now cockpit.socket

Last login: Tue Aug 11 01:51:45 2020 from 201.247.199.151
[centos@ip-172-31-47-1 ~]$
```

## Instalación de tomcat.

Actualizar instancia.

```
[centos@ip-172-31-47-1 ~]$ sudo yum -y install epel-release
Last metadata expiration check: 0:14:13 ago on Tue 11 Aug 2020 01:50:46 AM UTC.
Dependencies resolved.
=====
Package                                                    Architecture
=====
Installing:
epel-release                                                noarch

Transaction Summary
=====
Install 1 Package

Total download size: 23 k
Installed size: 32 k
Downloading Packages:
epel-release-8-8.el8.noarch.rpm
-----
Total
warning: /var/cache/dnf/extras-652eae77c097950b/packages/epel-release-8-8.el8.noarch.rpm: H
CentOS-8 - Extras
Importing GPG key 0x8483C65D:
  Userid      : "CentOS (CentOS Official Signing Key) <security@centos.org>"
  Fingerprint: 99DB 70FA E1D7 CE22 7FB6 4882 05B5 55B3 8483 C65D
  From        : /etc/pki/rpm-gpg/RPM-GPG-KEY-centosofficial
Key imported successfully
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing      : 
  Installing     : epel-release-8-8.el8.noarch
  Running scriptlet: epel-release-8-8.el8.noarch
  Verifying      : epel-release-8-8.el8.noarch

Installed:
  epel-release-8-8.el8.noarch

Complete!
[centos@ip-172-31-47-1 ~]$
```

```
[centos@ip-172-31-47-1 ~]$ sudo yum -y update
Extra Packages for Enterprise Linux Modular 8 - x86_64      145 kB/s | 82 kB      00:00
Extra Packages for Enterprise Linux 8 - x86_64             14 MB/s | 7.5 MB     00:00
Dependencies resolved.
=====
Package                Architecture Version                                Repository      Size
=====
Installing:
kernel                 x86_64      4.18.0-193.14.2.el8_2                  BaseOS          2.8 M
kernel-core            x86_64      4.18.0-193.14.2.el8_2                  BaseOS          28 M
kernel-modules          x86_64      4.18.0-193.14.2.el8_2                  BaseOS          23 M
Upgrading:
NetworkManager         x86_64      1:1.22.8-5.el8_2                       BaseOS          2.3 M
NetworkManager-libnm   x86_64      1:1.22.8-5.el8_2                       BaseOS          1.7 M
NetworkManager-team    x86_64      1:1.22.8-5.el8_2                       BaseOS          136 k
NetworkManager-tui     x86_64      1:1.22.8-5.el8_2                       BaseOS          306 k
bind-export-libs       x86_64      32:9.11.13-5.el8_2                     BaseOS          1.1 M
cloud-init              noarch     19.4-1.el8_7                           AppStream       930 k
dbus                    x86_64      1:1.12.8-10.el8_2                      BaseOS          41 k
dbus-common             noarch     1:1.12.8-10.el8_2                      BaseOS          45 k
dbus-daemon             x86_64      1:1.12.8-10.el8_2                      BaseOS          239 k
dbus-libs               x86_64      1:1.12.8-10.el8_2                      BaseOS          183 k
dbus-tools              x86_64      1:1.12.8-10.el8_2                      BaseOS          85 k
dnf                     noarch     4.2.17-7.el8_2                         BaseOS          469 k
dnf-data                noarch     4.2.17-7.el8_2                         BaseOS          145 k
gnutls                  x86_64      3.6.8-11.el8_2                         BaseOS          915 k
grub2-common            noarch     1:2.02-87.el8_2                        BaseOS          882 k
grub2-pc                x86_64      1:2.02-87.el8_2                        BaseOS          37 k
grub2-pc-modules        noarch     1:2.02-87.el8_2                        BaseOS          863 k
grub2-tools             x86_64      1:2.02-87.el8_2                        BaseOS          2.0 M
grub2-tools-extra       x86_64      1:2.02-87.el8_2                        BaseOS          1.1 M
grub2-tools-minimal     x86_64      1:2.02-87.el8_2                        BaseOS          202 k
iptables-libs           x86_64      1.8.4-10.el8_2.1                       BaseOS          105 k
kernel-tools            x86_64      4.18.0-193.14.2.el8_2                  BaseOS          3.0 M
kernel-tools-libs       x86_64      4.18.0-193.14.2.el8_2                  BaseOS          2.8 M
libdnf                  x86_64      0.39.1-6.el8_2                         BaseOS          620 k
libnghttp2              x86_64      1.33.0-3.el8_2.1                       BaseOS          77 k
microcode_ctl           x86_64      4:20191115-4.20200609.1.el8_2          BaseOS          2.7 M
python3-dnf             noarch     4.2.17-7.el8_2                         BaseOS          521 k
python3-hawkey          x86_64      0.39.1-6.el8_2                         BaseOS          99 k
python3-libdnf          x86_64      0.39.1-6.el8_2                         BaseOS          689 k
python3-perf            x86_64      4.18.0-193.14.2.el8_2                  BaseOS          2.9 M
qemu-guest-agent        x86_64      15:2.12.0-99.module_el8.2.0+385+c644c6e8.2 AppStream       217 k
selinux-policy          noarch     3.14.3-41.el8_2.5                       BaseOS          614 k
selinux-policy-targeted noarch     3.14.3-41.el8_2.5                       BaseOS          15 M
systemd                 x86_64      239-31.el8_2.2                          BaseOS          3.5 M
systemd-libs            x86_64      239-31.el8_2.2                          BaseOS          1.1 M
systemd-pam             x86_64      239-31.el8_2.2                          BaseOS          451 k
systemd-udev            x86_64      239-31.el8_2.2                          BaseOS          1.3 M
yum                     noarch     4.2.17-7.el8_2                         BaseOS          191 k
Installing dependencies:
grub2-tools-efi         x86_64      1:2.02-87.el8_2                        BaseOS          467 k
linux-firmware          noarch     20191202-97.gite8a0f4c9.el8            BaseOS          72 M
Transaction Summary
=====
Install  5 Packages
Upgrade  38 Packages
```

Instalar Java

```
[centos@ip-172-31-47-1 ~]$ java -version
-bash: java: command not found
```

```
[centos@ip-172-31-47-1 ~]$ sudo dnf install java-14-openjdk-devel -y
Last metadata expiration check: 0:07:10 ago on Tue 11 Aug 2020 02:06:22 AM UTC.
Dependencies resolved.
```

Package	Architecture	Version	Repository	Size
Installing:				
java-latest-openjdk-devel	x86_64	1:14.0.2.12-1.rolling.el8	epel	4.7 M
Installing dependencies:				
adwaita-cursor-theme	noarch	3.28.0-2.el8	AppStream	647 k
adwaita-icon-theme	noarch	3.28.0-2.el8	AppStream	11 M
alsa-lib	x86_64	1.2.1.2-3.el8	AppStream	441 k
at-spi2-atk	x86_64	2.26.2-1.el8	AppStream	89 k
at-spi2-core	x86_64	2.28.0-1.el8	AppStream	169 k
atk	x86_64	2.28.1-1.el8	AppStream	272 k
avahi-libs	x86_64	0.7-19.el8	BaseOS	62 k
colord-libs	x86_64	1.4.2-1.el8	AppStream	236 k
copy-jdk-configs	noarch	3.7-1.el8	AppStream	27 k
cups-libs	x86_64	1:2.2.6-33.el8	BaseOS	432 k
fribidi	x86_64	1.0.4-8.el8	AppStream	89 k
gdk-pixbuf2-modules	x86_64	2.36.12-5.el8	AppStream	109 k
glib	x86_64	5.1.4-3.el8	AppStream	51 k
graphite2	x86_64	1.3.10-10.el8	AppStream	122 k
gtk-update-icon-cache	x86_64	3.22.30-5.el8	AppStream	32 k
harfbuzz	x86_64	1.7.5-3.el8	AppStream	295 k
hicolor-icon-theme	noarch	0.17-2.el8	AppStream	49 k
jasper-libs	x86_64	2.0.14-4.el8	AppStream	167 k
java-latest-openjdk	x86_64	1:14.0.2.12-1.rolling.el8	epel	237 k
java-latest-openjdk-headless	x86_64	1:14.0.2.12-1.rolling.el8	epel	43 M
javapackages-filesystem	noarch	5.3.0-1.module_el8.0.0+11+5b8c10bd	AppStream	30 k
jbigkit-libs	x86_64	2.1-14.el8	AppStream	55 k
lcms2	x86_64	2.9-2.el8	AppStream	165 k
libXcomposite	x86_64	0.4.4-14.el8	AppStream	28 k
libXcursor	x86_64	1.1.15-3.el8	AppStream	36 k
libXdamage	x86_64	1.1.4-14.el8	AppStream	27 k
libXfixes	x86_64	5.0.3-7.el8	AppStream	25 k
libXft	x86_64	2.3.2-10.el8	AppStream	66 k
libXi	x86_64	1.7.9-7.el8	AppStream	49 k
libXinerama	x86_64	1.1.4-1.el8	AppStream	16 k
libXrandr	x86_64	1.5.1-7.el8	AppStream	33 k
libXtst	x86_64	1.2.3-7.el8	AppStream	22 k
libdatrie	x86_64	0.2.9-7.el8	AppStream	33 k
libepoxy	x86_64	1.5.3-1.el8	AppStream	225 k
libfontenc	x86_64	1.1.3-8.el8	AppStream	37 k
libgusb	x86_64	0.3.0-1.el8	BaseOS	49 k
libjpeg-turbo	x86_64	1.5.3-10.el8	AppStream	156 k
libpkgconf	x86_64	1.4.2-1.el8	BaseOS	35 k
libthai	x86_64	0.1.27-2.el8	AppStream	203 k
libtiff	x86_64	4.0.9-17.el8	AppStream	188 k
libwayland-client	x86_64	1.17.0-1.el8	AppStream	39 k
libwayland-cursor	x86_64	1.17.0-1.el8	AppStream	26 k
libwayland-egl	x86_64	1.17.0-1.el8	AppStream	19 k
lua	x86_64	5.3.4-11.el8	AppStream	193 k
pango	x86_64	1.42.4-6.el8	AppStream	298 k
pkgconf	x86_64	1.4.2-1.el8	BaseOS	38 k
pkgconf-m4	noarch	1.4.2-1.el8	BaseOS	17 k
pkgconf-pkg-config	x86_64	1.4.2-1.el8	BaseOS	15 k
rest	x86_64	0.8.1-2.el8	AppStream	70 k
ttmkfdir	x86_64	3.0.9-54.el8	AppStream	62 k
tzdata-java	noarch	2020a-1.el8	AppStream	189 k
xorg-x11-font-utils	x86_64	1:7.5-40.el8	AppStream	103 k
xorg-x11-fonts-Type1	noarch	7.5-19.el8	AppStream	522 k
Installing weak dependencies:				
dconf	x86_64	0.28.0-3.el8	AppStream	109 k
gtk3	x86_64	3.22.30-5.el8	AppStream	4.5 M

```
[centos@ip-172-31-47-1 ~]$ java -version
openjdk version "14.0.2" 2020-07-14
OpenJDK Runtime Environment 20.3 (build 14.0.2+12)
OpenJDK 64-Bit Server VM 20.3 (build 14.0.2+12, mixed mode, sharing)
```

## Instalar wget

```
[root@ip-172-31-47-1 tomcat9]# yum install wget -y
Last metadata expiration check: 0:21:32 ago on Tue 11 Aug 2020 02:06:22 AM UTC.
Dependencies resolved.
=====
Package                Architecture          Version
=====
Installing:
  wget                  x86_64                1.19.5-8.el8_1.1

Transaction Summary
=====
Install 1 Package

Total download size: 735 k
Installed size: 2.9 M
Downloading Packages:
wget-1.19.5-8.el8_1.1.x86_64.rpm
=====
Total
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing      : 
  Installing     : wget-1.19.5-8.el8_1.1.x86_64
  Running scriptlet: wget-1.19.5-8.el8_1.1.x86_64
  Verifying      : wget-1.19.5-8.el8_1.1.x86_64

Installed:
  wget-1.19.5-8.el8_1.1.x86_64
```

## Instalación de Tomcat 9

### Creación de usuario

```
[root@ip-172-31-47-1 centos]# useradd -r tomcat
[root@ip-172-31-47-1 centos]# mkdir /usr/local/tomcat9
[root@ip-172-31-47-1 centos]# cd /usr/local/tomcat9
```

### Obtener tomcat

```
[root@ip-172-31-47-1 tomcat9]# wget http://www-us.apache.org/dist/tomcat/tomcat-9/v9.0.37/bin/apache-tomcat-9.0.37.tar.gz
--2020-08-11 02:28:25-- http://www-us.apache.org/dist/tomcat/tomcat-9/v9.0.37/bin/apache-tomcat-9.0.37.tar.gz
Resolving www-us.apache.org (www-us.apache.org)... 40.79.78.1
Connecting to www-us.apache.org (www-us.apache.org)|40.79.78.1|:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://downloads.apache.org/tomcat/tomcat-9/v9.0.37/bin/apache-tomcat-9.0.37.tar.gz [following]
--2020-08-11 02:28:25-- https://downloads.apache.org/tomcat/tomcat-9/v9.0.37/bin/apache-tomcat-9.0.37.tar.gz
Resolving downloads.apache.org (downloads.apache.org)... 88.99.95.219, 2a01:4f8:10a:201a::2
Connecting to downloads.apache.org (downloads.apache.org)|88.99.95.219|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 11211292 (11M) [application/x-gzip]
Saving to: 'apache-tomcat-9.0.37.tar.gz'

apache-tomcat-9.0.37.tar.gz  100%[=====>]  10.69M  7.59MB/s
2020-08-11 02:28:27 (7.59 MB/s) - 'apache-tomcat-9.0.37.tar.gz' saved [11211292/11211292]
```

### Descomprimir tomcat.



```
[root@ip-172-31-47-1 tomcat9]# ls
apache-tomcat-9.0.37.tar.gz
[root@ip-172-31-47-1 tomcat9]# tar -xvf apache-tomcat-9.0.37.tar.gz
apache-tomcat-9.0.37/conf/
apache-tomcat-9.0.37/conf/catalina.policy
apache-tomcat-9.0.37/conf/catalina.properties
apache-tomcat-9.0.37/conf/context.xml
apache-tomcat-9.0.37/conf/jaspic-providers.xml
apache-tomcat-9.0.37/conf/jaspic-providers.xsd
apache-tomcat-9.0.37/conf/logging.properties
apache-tomcat-9.0.37/conf/server.xml
apache-tomcat-9.0.37/conf/tomcat-users.xml
apache-tomcat-9.0.37/conf/tomcat-users.xsd
apache-tomcat-9.0.37/conf/web.xml
```

Configurar el servicio..

```
[root@ip-172-31-47-1 tomcat9]# echo "export CATALINA_HOME=\"/usr/local/tomcat9\"" >> ~/.bashrc
[root@ip-172-31-47-1 tomcat9]# source ~/.bashrc
[root@ip-172-31-47-1 tomcat9]# touch /etc/systemd/system/tomcat.service
[root@ip-172-31-47-1 tomcat9]# vim /etc/systemd/system/tomcat.service
bash: vim: command not found
[root@ip-172-31-47-1 tomcat9]# vim /etc/systemd/system/tomcat.service
bash: vim: command not found
[root@ip-172-31-47-1 tomcat9]# vi /etc/systemd/system/tomcat.service
[root@ip-172-31-47-1 tomcat9]# vi /etc/systemd/system/tomcat.service
[root@ip-172-31-47-1 tomcat9]# systemctl daemon-reload
[root@ip-172-31-47-1 tomcat9]# systemctl start tomcat.service
[root@ip-172-31-47-1 tomcat9]# systemctl enable tomcat.service
Created symlink /etc/systemd/system/multi-user.target.wants/tomcat.service → /etc/systemd/system/tomcat.service.
[root@ip-172-31-47-1 tomcat9]# systemctl status tomcat.service
tomcat.service - Apache Tomcat Server
```

Probar local tomcat

```
[root@ip-172-31-47-1 tomcat9]# curl localhost:8080

<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <title>Apache Tomcat/9.0.37</title>
    <link href="favicon.ico" rel="icon" type="image/x-icon" />
    <link href="favicon.ico" rel="shortcut icon" type="image/x-icon" />
    <link href="tomcat.css" rel="stylesheet" type="text/css" />
  </head>
  <body>
    <div id="wrapper">
      <div id="navigation" class="curved container">
        <span id="nav-home"><a href="https://tomcat.apache.org/">Home</a></span>
        <span id="nav-hosts"><a href="/docs/">Documentation</a></span>
        <span id="nav-config"><a href="/docs/config/">Configuration</a></span>
        <span id="nav-examples"><a href="/examples/">Examples</a></span>
        <span id="nav-wiki"><a href="https://wiki.apache.org/tomcat/FrontPage">Wiki</a></span>
        <span id="nav-lists"><a href="https://tomcat.apache.org/lists.html">Mailing Lists</a></span>
        <span id="nav-help"><a href="https://tomcat.apache.org/findhelp.html">Find Help</a></span>
        <br class="separator" />
      </div>
      <div id="asf-box">
        <h1>Apache Tomcat/9.0.37</h1>
      </div>
      <div id="upper" class="curved container">
        <div id="congrats" class="curved container">
          <h2>If you're seeing this, you've successfully installed Tomcat. Congratulations!</h2>
        </div>
        <div id="notice">
          
          <div id="tasks">
            <h3>Recommended Reading:</h3>
            <h4><a href="/docs/security-howto.html">Security Considerations How-To</a></h4>
            <h4><a href="/docs/manager-howto.html">Manager Application How-To</a></h4>
            <h4><a href="/docs/cluster-howto.html">Clustering/Session Replication How-To</a></h4>
          </div>
        </div>
        <div id="actions">
          <div class="button">
            <a class="container shadow" href="/manager/status"><span>Server Status</span></a>
          </div>
          <div class="button">
            <a class="container shadow" href="/manager/html"><span>Manager Apps</span></a>
          </div>
        </div>
      </div>
    </div>
  </body>
</html>
```



Servicion tomcat:

<http://13.59.82.78:8080/>


→ ↻ ⓘ No seguro | 13.59.82.78:8080

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## Apache Tomcat/9.0.37

If you're seeing this, you've successfully installed Tomcat. Congratulations!



Recommended Reading:

- [Security Considerations How-To](#)
- [Manager Application How-To](#)
- [Clustering/Session Replication How-To](#)

Server Status  
Manager App  
Host Manager

### Developer Quick Start

<a href="#">Tomcat Setup</a>	<a href="#">Realms &amp; AAA</a>	<a href="#">Examples</a>	<a href="#">Servlet Specifications</a>
<a href="#">First Web Application</a>	<a href="#">JDBC Data Sources</a>		<a href="#">Tomcat Versions</a>

#### Managing Tomcat

For security, access to the `manager webapp` is restricted. Users are defined in:

```
$CATALINA_HOME/conf/tomcat-users.xml
```

In Tomcat 9.0 access to the manager application is split between different users. [Read more...](#)

[Release Notes](#)

[Changelog](#)

[Migration Guide](#)

#### Documentation

[Tomcat 9.0 Documentation](#)

[Tomcat 9.0 Configuration](#)

[Tomcat Wiki](#)

Find additional important configuration information in:

- `$CATALINA_HOME/RUNNING.txt`

Developers may be interested in:

- [Tomcat 9.0 Bug Database](#)

#### Getting Help

##### FAQ and Mailing Lists

The following mailing lists are available:

- [tomcat-announce](#)  
Important announcements, releases, security vulnerability notifications. (Low volume)
- [tomcat-users](#)  
User support and discussion
- [tomcat-dev](#)  
User support and discussion for [Apache Tomcat](#)
- [tomcat-dev](#)  
Development mailing list, including commit