

## b) Automatizacion del desafio 3 con Jenkins

miércoles, 9 de noviembre de 2022 00:50

Para esto necesitamos crear una instancia ec2, donde alojaremos, entre otras cosas, Jenkins.

Creamos el SG:

EC2 > Security Groups > sg-0be901d3fc1eb37e4 - desafio3-sg

### sg-0be901d3fc1eb37e4 - desafio3-sg

Actions ▼

Details			
Security group name desafio3-sg	Security group ID sg-0be901d3fc1eb37e4	Description jenkins-sg	VPC ID vpc-09e73af8b6b2322fa
Owner 582244286497	Inbound rules count 4 Permission entries	Outbound rules count 1 Permission entry	

Creamos la instancia propiamente dicha

EC2 > Instances > i-02a7f7b895c5bd20d

### Instance summary for i-02a7f7b895c5bd20d (Desafio3-Devops-ec2)

Updated less than a minute ago

Refresh Connect Instance state ▼ Actions ▼

Instance ID i-02a7f7b895c5bd20d (Desafio3-Devops-ec2)	Public IPv4 address 44.211.242.121   open address	Private IPv4 addresses 172.31.3.251
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-44-211-242-121.compute-1.amazonaws.com   open address
Hostname type IP name: ip-172-31-3-251.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-3-251.ec2.internal	
Answer private resource DNS name IPv4 (A)	Instance type t3a.medium	Elastic IP addresses -
Auto-assigned IP address 44.211.242.121 [Public IP]	VPC ID vpc-09e73af8b6b2322fa	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations.   Learn more
IAM Role -	Subnet ID subnet-01a3be73192bedbbf	Auto Scaling Group name -

Como Userdata agregamos:

```
#!/bin/bash
DOMAIN=$(curl icanhazip.com)
SSLIP="$DOMAIN.sslip.io"
sudo mv jenkins /etc/nginx/sites-available/
sudo apt update -y
sudo apt install -y wget unzip nginx
sudo systemctl start nginx
sudo mkdir -p /var/www/jenkins/html
sudo chown -R $USER:$USER /var/www/jenkins/html
sudo chmod -R 755 /var/www/jenkins
cat > jenkins <<EOF
server {
    listen 80;
    listen [::]:80;
    root /var/www/jenkins/html;
    index index.html index.htm index.nginx-debian.html;
    server_name $SSLIP www.$SSLIP;
    location / {
        #try_files $uri / =404;
        proxy_pass http://$SSLIP:8080;
        proxy_read_timeout 90s;
    }
}
```

```

}
EOF
sudo mv jenkins /etc/nginx/sites-available/
sudo ln -s /etc/nginx/sites-available/jenkins /etc/nginx/sites-enabled/
sudo systemctl restart nginx
sudo apt install -y certbot python3-certbot-nginx
sudo certbot --nginx --register-unsafely-without-email --agree-tos -d "${SSLIP}" --cert-name
jenkins
curl "https://awscli.amazonaws.com/awscli-exe-linux-x86_64.zip" -o "awscliv2.zip"
unzip awscliv2.zip
sudo ./aws/install
wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo gpg --dearmor -o
/usr/share/keyrings/jenkins.gpg
sudo sh -c 'echo deb [signed-by=/usr/share/keyrings/jenkins.gpg] http://pkg.jenkins.io/debian-
stable binary/ > /etc/apt/sources.list.d/jenkins.list'
sudo apt update -y
sudo apt install -y default-jre
sudo apt install -y jenkins
sudo systemctl start jenkins.service

```

Nos conectamos a la instancia para chequear si se hizo correctamente la instalacion.

```

individual files in /usr/share/doc/*/copyright.

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

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

ubuntu@ip-172-31-3-251:~$ systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset:
   Active: active (running) since Sun 2022-11-13 00:30:54 UTC; 3min 6s ago
     Docs: man:nginx(8)
    Main PID: 2211 (nginx)
      Tasks: 3 (limit: 4635)
     Memory: 5.5M
        CPU: 210ms
    CGroup: /system.slice/nginx.service
            └─2211 "nginx: master process /usr/sbin/nginx -g daemon on; master
            └─2699 "nginx: worker process" "" "" "" "" "" "" "" "" "" "" "" ""
            └─2700 "nginx: worker process" "" "" "" "" "" "" "" "" "" "" "" ""

Nov 13 00:30:54 ip-172-31-3-251 systemd[1]: Starting A high performance web ser
Nov 13 00:30:54 ip-172-31-3-251 systemd[1]: Started A high performance web serv
lines 1-15/15 (END)...skipping...
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
   Active: active (running) since Sun 2022-11-13 00:30:54 UTC; 3min 6s ago
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     Memory: 5.5M
        CPU: 210ms
    CGroup: /system.slice/nginx.service
            └─2211 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"
            └─2699 "nginx: worker process" "" "" "" "" "" "" "" "" "" "" "" ""
            └─2700 "nginx: worker process" "" "" "" "" "" "" "" "" "" "" "" ""

Nov 13 00:30:54 ip-172-31-3-251 systemd[1]: Starting A high performance web server...
Nov 13 00:30:54 ip-172-31-3-251 systemd[1]: Started A high performance web server and a reverse proxy server.
~
~

```

Vemos que el Userdata funciono correctamente.

Para hacerla completa podemos utilizar

<https://44.211.242.121.sslip.io/>

[añadir descripción](#)

## ¡Bienvenido a Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

### Start building your software project

Create a job



### Set up a distributed build

Una vez configurado Jenkins, instalamos los plugins sugeridos e instalamos los pluggins: S3

Publisher y AWS Global configuration.

Configuramos Jenkins, agregamos un nuevo Pipeline con la configuracion para Git

## Build Triggers

- ☐ Construir tras otros proyectos ?
- ☐ Ejecutar periódicamente ?
- ☒ GitHub hook trigger for GITScm polling ?
- ☐ Consultar repositorio (SCM) ?
- ☐ Periodo de espera ?
- ☐ Lanzar ejecuciones remotas (ejem: desde 'scripts') ?

SCM ?

Git

Repositories ?

Repository URL ?

https://github.com/lucaspedernera27/Desafio3.git

! Please enter Git repository.

Credentials ?

- none -

+ Add

Avanzado...

Branches to build ?

Branch Specifier (blank for 'any') ?

\*/main

Add Branch

A la par cargamos el JenkinsFile en el repo de GitHub con la configuracion:

```
pipeline {
  agent any

  stages {
    stage('AWS STS') {
      steps {
        echo 'AWS STS'
        sh 'aws sts get-caller-identity'
      }
    }
    stage('AWS S3 listar') {
      steps {
        sh 'aws s3 ls'
      }
    }
    stage('Git Clone') {
```

```

steps {
  sh 'rm -rf Desafio3/'
  sh 'git clone https://github.com/lucaspedernera27/Desafio3.git'
  sh 'ls -lrt Desafio3/'
}
}
stage('Upload to S3') {
  steps {
    sh 'aws s3 cp Desafio3 s3://desafio3-csv-loader-bucket --recursive'
  }
}
}
}

```

## Webhooks

Add webhook

Webhooks allow external services to be notified when certain events happen. When the specified events happen, we'll send a POST request to each of the URLs you provide. Learn more in our [Webhooks Guide](#).

https://44.211.242.121.sslip.io/github... (push)

EditDelete

Una vez hecha la configuración del lado del repo...

Sumamos al repositorio, volvemos a Jenkins y le damos a Build with parameters para chequear si el proceso se ejecuta correctamente

Objects
Properties
Permissions
Metrics
Management
Access Points

### Objects (3)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Copy S3 URI
Copy URL
Download
Open
Delete
Actions
Create folder

Upload

Show versions

< 1 >

⚙️

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	.git/	Folder	-	-	-
<input type="checkbox"/>	data.csv	csv	November 12, 2022, 21:18:40 (UTC-03:00)	4.1 KB	Standard
<input type="checkbox"/>	Jenkinsfile	-	November 12, 2022, 22:10:53 (UTC-03:00)	697.0 B	Standard

Se ejecuto correctamente.

Ahora voy a hacer un pequeño cambio en la tabla y agregarla al repositorio para ver si la automatización con webhook funciona

<input type="checkbox"/>	WOOF	DOGGY	Payer	BONE	175
<input type="checkbox"/>	WOOFY	DOGGY	Payer	BONE	175
<input type="checkbox"/>	NEIGH	HORSE	Payer	BONE	175

El cambio funciono y el proceso quedo automatizado con Jenkins.