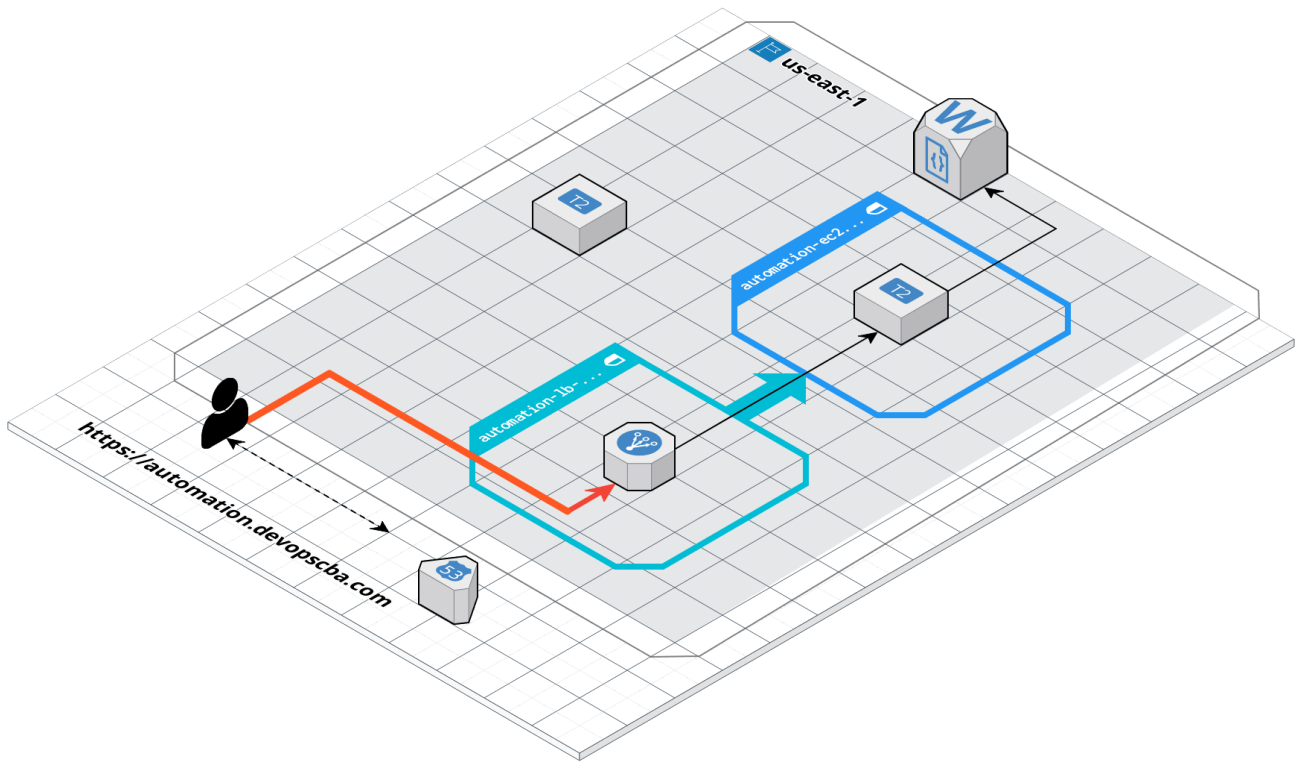


# Repaso de Las Pruebas de Automatización

Diagrama de Componentes



1. Crear una máquina de EC2 en la cuenta de AWS

Services

Search for services, features, marketplace products, and docs

[Alt+S]

AWSReservedSSO\_AdministratorAccess\_03764bac4500cab0/abernal@...

Ohio

Support

1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

Step 1: Choose an Amazon Machine Image (AMI)

Cancel and Exit

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

Q ubuntu

Search by Systems Manager parameter

Quick Start (8)

My AMIs (0)

AWS Marketplace (618)

Community AMIs (13289)

Free tier only

Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-08962a4068733a2b6 (64-bit x86) / ami-064446ad1d755489e (64-bit Arm)

Free tier eligible

Ubuntu Server 20.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Root device type: ebs   Virtualization type: hvm   ENA Enabled: Yes

Select

64-bit (x86)

64-bit (Arm)

Ubuntu Server 18.04 LTS (HVM), SSD Volume Type - ami-01e7ca2ef94a0ae86 (64-bit x86) / ami-0f1a02d93feff123e (64-bit Arm)

Free tier eligible

Ubuntu Server 18.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Root device type: ebs   Virtualization type: hvm   ENA Enabled: Yes

Select

64-bit (x86)

64-bit (Arm)

Ubuntu Server 16.04 LTS (HVM) with SQL Server 2017 Standard - ami-01ebc0c10725bf4b7

Microsoft SQL Server 2017 Standard edition on Ubuntu Server 16.04 LTS. The AMI also comes pre-installed with .NET Core 5.0 and PowerShell 7.1.

Root device type: ebs   Virtualization type: hvm   ENA Enabled: Yes

Select

64-bit (x86)

Deep Learning AMI (Ubuntu 18.04) Version 41.0 - ami-0783f2fb8212ce3b

MXNet-1.8.0 & 1.7.0, TensorFlow-2.4.1, 2.1.3 & 1.15.5, PyTorch-1.4.0 & 1.8.0, Neuron, & others. NVIDIA CUDA, cuDNN, NCCL, Intel MKL-DNN, Docker, NVIDIA-Docker & EFA support. For fully managed experience, check: <https://aws.amazon.com/sagemaker>

Root device type: ebs   Virtualization type: hvm   ENA Enabled: Yes

Select

64-bit (x86)

Del tipo t2 small

Services

Search for services, features, marketplace products, and docs

[Alt+S]

AWSReservedSSO\_AdministratorAccess\_03764bac4500cab0/abernal@...

Ohio

Support

1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

Step 2: Choose an Instance Type

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

Filter by: All instance families   Current generation   Show/Hide Columns

Currently selected: t2.small (~ ECU, 1 vCPUs, 2.5 GHz, ~, 2 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.micro	1	1	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.large	2	8	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.xlarge	4	16	EBS only	-	Moderate	Yes
<input type="checkbox"/>	t2	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
<input type="checkbox"/>	t3	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.small	2	2	EBS only	Yes	Up to 5 Gigabit	Yes

Cancel

Previous

Review and Launch

Next: Configure Instance Details

Feedback   English (US)

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Con las configuraciones de red por defecto

Services

Search for services, features, marketplace products, and docs

[Alt+S]

AWSReservedSSO\_AdministratorAccess\_03764bac4500cab0/abernal @...

Ohio

Support

1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

### Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances

1

Launch into Auto Scaling Group

Purchasing option

☐ Request Spot instances

Network

vpc-414c972a (default)

Create new VPC

Subnet

No preference (default subnet in any Availability Zone)

Create new subnet

Auto-assign Public IP

Use subnet setting (Enable)

Placement group

☐ Add instance to placement group

Capacity Reservation

Open

Domain join directory

No directory

Create new directory

IAM role

None

Create new IAM role

CPU options

☐ Specify CPU options

Shutdown behavior

Stop

Stop - Hibernate behavior

☐ Enable hibernation as an additional stop behavior

Enable termination protection

☐ Protect against accidental termination

Monitoring

☐ Enable CloudWatch detailed monitoring

Additional charges apply.

Cancel

Previous

Review and Launch

Next: Add Storage

## Con un disco de 8 GB

Services

Search for services, features, marketplace products, and docs

[Alt+S]

AWSReservedSSO\_AdministratorAccess\_03764bac4500cab0/abernal @...

Ohio

Support

1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

### Step 4: Add Storage

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

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/sda1	snap-08d55512ce962b5e5	8	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

Add New Volume

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

Cancel

Previous

Review and Launch

Next: Add Tags

## Con el tag

Name : Automation

Con un nuevo grupo de seguridad que habilite el acceso por el puerto 22 desde cualquier red

Cuando creamos la máquina asegurémonos de crear una llave de ssh con el nombre de automation

Services

Search for services, features, marketplace products, and docs

[Alt+S]

AWSReservedSSO\_AdministratorAccess\_03764bac4500cab0/abernal@... Ohio Support

1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

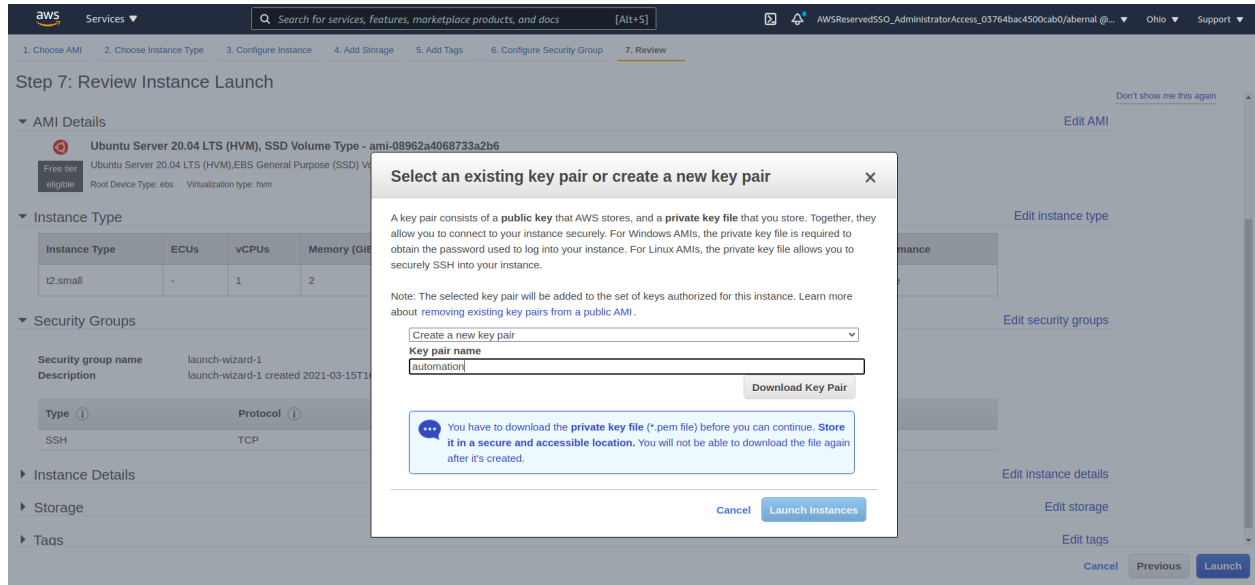
### Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver. A copy of a tag can be applied to volumes, instances or both. Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key (128 characters maximum)	Value (256 characters maximum)	Instances ⓘ	Volumes ⓘ	Network Interfaces ⓘ
<input type="text" value="Name"/>	<input type="text" value="automation"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Add another tag

(Up to 50 tags maximum)



Descargar la llave de ssh en la máquina local

## 2. Ingresar a la máquina de EC2

```
ssh -i "automation.pem"  
ubuntu@ec2-3-142-153-102.us-east-2.compute.amazonaws.com
```

## 3. Clonar el repositorio

Clonar el siguiente repositorio

- <https://github.com/borjas-prodolliet/automation>

Ejecutando el siguiente comando

```
git clone https://github.com/borjas-prodolliet/automation
```

## 4. Entrar en el repositorio

Ejecutar el siguiente comando

```
cd automation
```

## 5. Configurar los datos de conexión a la base de datos

Creando nuestra base de datos en Atlas

Ir a <https://account.mongodb.com/account/register>

→ Registrarse



MONGODB ATLAS

## Let's get your account set up

### Name your organization and project

#### Organization

Your organization can be a business, team, or an individual

Alejandro's Org - 2020-10-30












#### Project Name

Use projects to isolate different environments (development/testing/production)

Project 0

### What is your preferred language?

We'll use this to customize code samples and content we share with you. You can always change this later.

 JavaScript	 C++	 C# / .NET	 Go
 Java	 C	 Perl	 PHP
 Python	 Ruby	 Scala	Other

[Skip](#)

Continue



MONGODB ATLAS

## Choose a path. Adjust anytime.

Available as a fully managed service across 60+ regions on AWS, Azure, and Google Cloud

### Shared Clusters

For teams learning MongoDB or developing small applications.

- ✓ Highly available auto-healing cluster
- ✓ End-to-end encryption
- ✓ Role-based access control

Create a cluster

Starting at  
**FREE**

### Dedicated Clusters

For teams building applications that need advanced development and production-ready environments.

- ✓ Includes all features from Shared Clusters
- ✓ Auto-scaling
- ✓ Network isolation
- ✓ Realtime performance metrics

Create a cluster

Starting at  
**\$0.08/hr\***  
\*estimated cost \$56.94/month

### Dedicated Multi-Region Clusters

For teams developing world-class applications that require multi-region resiliency or ultra-low latency.

- ✓ Includes all features from Shared and Dedicated Clusters
- ✓ Replicate data across multiple regions
- ✓ Globally distributed read and write operations
- ✓ Control data residency at the document level

Create a cluster

Starting at  
**\$0.13/hr\***  
\*estimated cost \$98.55/month

[Dismiss](#)

[Advanced Configuration Options](#)



## Create a Starter Cluster

Welcome to MongoDB Atlas! We've recommended some of our most popular options, but feel free to customize your cluster to your needs. For more information, check our [documentation](#).

### Cloud Provider & Region

AWS, N. Virginia (us-east-1) ▾



★ Recommended region ⓘ

#### NORTH AMERICA

🇺🇸 N. Virginia (us-east-1) ★

🇺🇸 Oregon (us-west-2) ★

#### ASIA

🇸🇬 Singapore (ap-southeast-1) ★

🇮🇳 Mumbai (ap-south-1)

#### EUROPE

🇩🇪 Frankfurt (eu-central-1) ★

🇮🇪 Ireland (eu-west-1) ★

#### AUSTRALIA

🇦🇺 Sydney (ap-southeast-2) ★

### Cluster Tier

M0 Sandbox (Shared RAM, 512 MB Storage) >  
Encrypted

**FREE**

Free forever! Your M0 cluster is ideal for experimenting in a limited sandbox. You can upgrade to a production cluster anytime.

[Back](#)

Create Cluster

The screenshot shows the MongoDB Atlas interface. On the left, a sidebar contains navigation links: DATA STORAGE (Clusters, Triggers, Data Lake), SECURITY (Database Access, Network Access, Advanced), and a red arrow points to the 'CONNECT' button under the 'CONNECT' tab. The main area displays details for 'Cluster0' (Version 4.2.10). It includes metrics for Operations (R: 0, W: 0), Logical Size (0.0 B), and Connections (0). A red arrow points to the 'CONNECT' button in the sidebar. Below the metrics, there's a section for 'Enhance Your Experience' with an 'Upgrade' button.

## Conectándonos a nuestra base de datos

The screenshot shows a 'Connect to Cluster0' dialog box. It has three tabs: 'Setup connection security', 'Choose a connection method', and 'Connect'. The 'Setup connection security' tab is active. It contains a message: 'You need to secure your MongoDB Atlas cluster before you can use it. Set which users and IP addresses can access your cluster now. [Read more](#)'. Below this is a yellow warning box: 'You can't connect yet. Set up your firewall access and user security permission below.' The first step is 'Add a connection IP address'. It has two input fields: 'IP Address' (containing '186.122.180.254') and 'Description (Optional)' (containing 'An optional comment describing this entry'). There are 'Cancel' and 'Add IP Address' buttons. A red arrow points to the 'Add IP Address' button. The second step is 'Create a Database User'. It has a message: 'This first user will have [atlasAdmin](#) permissions for this project. Keep your credentials handy, you'll need them for the next step.' It has two input fields: 'Username' (containing 'ex. dbUser') and 'Password' (containing 'ex. dbUserPassword'). There is an 'Autogenerate Secure Password' button and a 'SHOW' button.

Connect to Cluster0

Setup connection security > Choose a connection method > Connect

You need to secure your MongoDB Atlas cluster before you can use it. Set which users and IP addresses can access your cluster now. [Read more](#)

You can't connect yet. Set up your user security permission below.

1 Add a connection IP address

✓ An IP address has been whitelisted. Add another whitelist entry in the [IP Whitelist tab](#).

2 Create a Database User

This first user will have [atlasAdmin](#) permissions for this project.

Keep your credentials handy, you'll need them for the next step.

Username Password [Autogenerate Secure Password](#)

alejandro \*\*\*\*\* SHOW

Create Database User

Close Choose a connection method

Este usuario y contraseña usaremos luego para conectarnos a la base.

Obtener el string de conexión

## DATA STORAGE

## Clusters

Triggers

Data Lake

## SECURITY

Database Access

Network Access

Advanced

BORJAS'S ORG - 2020-10-24 &gt; NODE WITH MONGO

## Clusters

## SANDBOX

## Cluster0

Version 4.2.10

CONNECT

METRICS

COLLECTIONS

...

## CLUSTER TIER

M0 Sandbox (General)

## REGION

AWS / N. Virginia (us-east-1)

## TYPE

Replica Set - 3 nodes

## LINKED REALM APP

None Linked

## ATLAS SEARCH

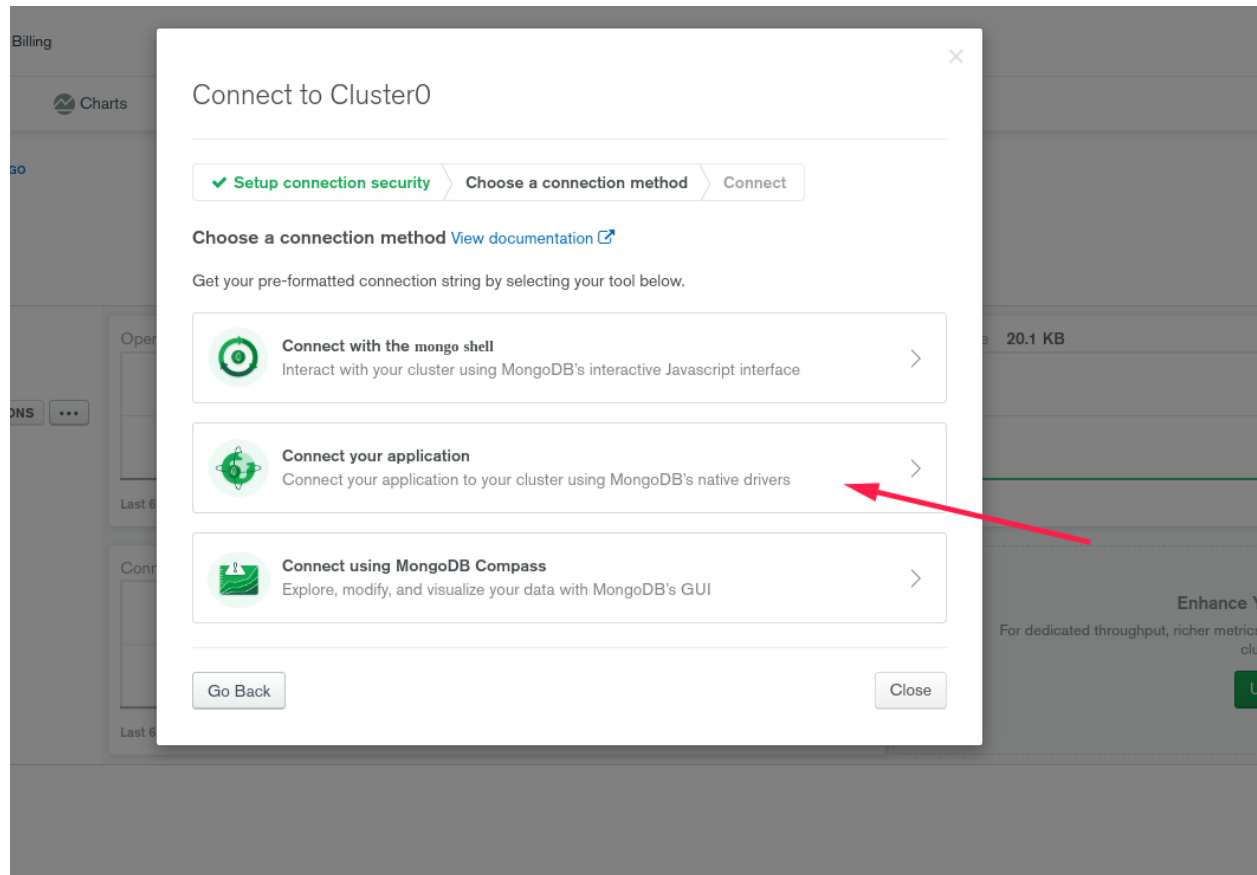
[Create Index](#)

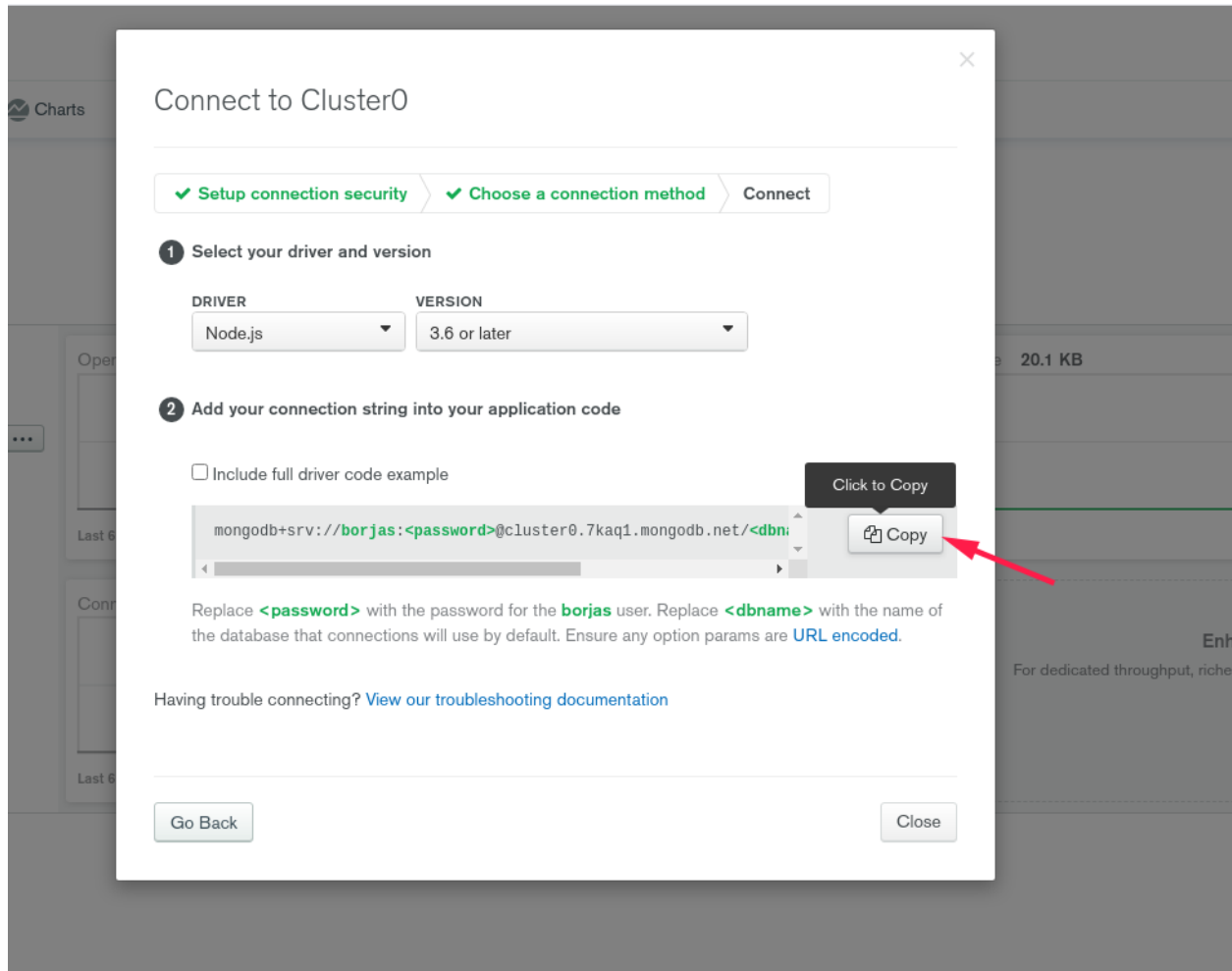
Operations R: 0 W: 0

Last 6 Hours

Connections 0

Last 6 Hours





Reemplazar en el archivo **config.env**, el string de conexión y el password de tu base de mongoDB Atlas.

## config.env

```
NODE_ENV=development
PORT=3000

DATABASE=string de conexion aqui
DATABASE_PASSWORD=password de base de datos aqui

JWT_SECRET=my-very-ultra-secure-long-secret
JWT_EXPIRES_IN=90d
JWT_COOKIE_EXPIRES_IN=90

EMAIL_USERNAME=4b68cdbade7bc6
EMAIL_PASSWORD=820e534040c79d
EMAIL_HOST=smtp.mailtrap.io
EMAIL_PORT=25
```

## 6. Popular la base de datos

Ejecutar los siguientes comandos

Instalar las librerías necesarias

```
sudo apt update
sudo apt install npm -y
npm install
```

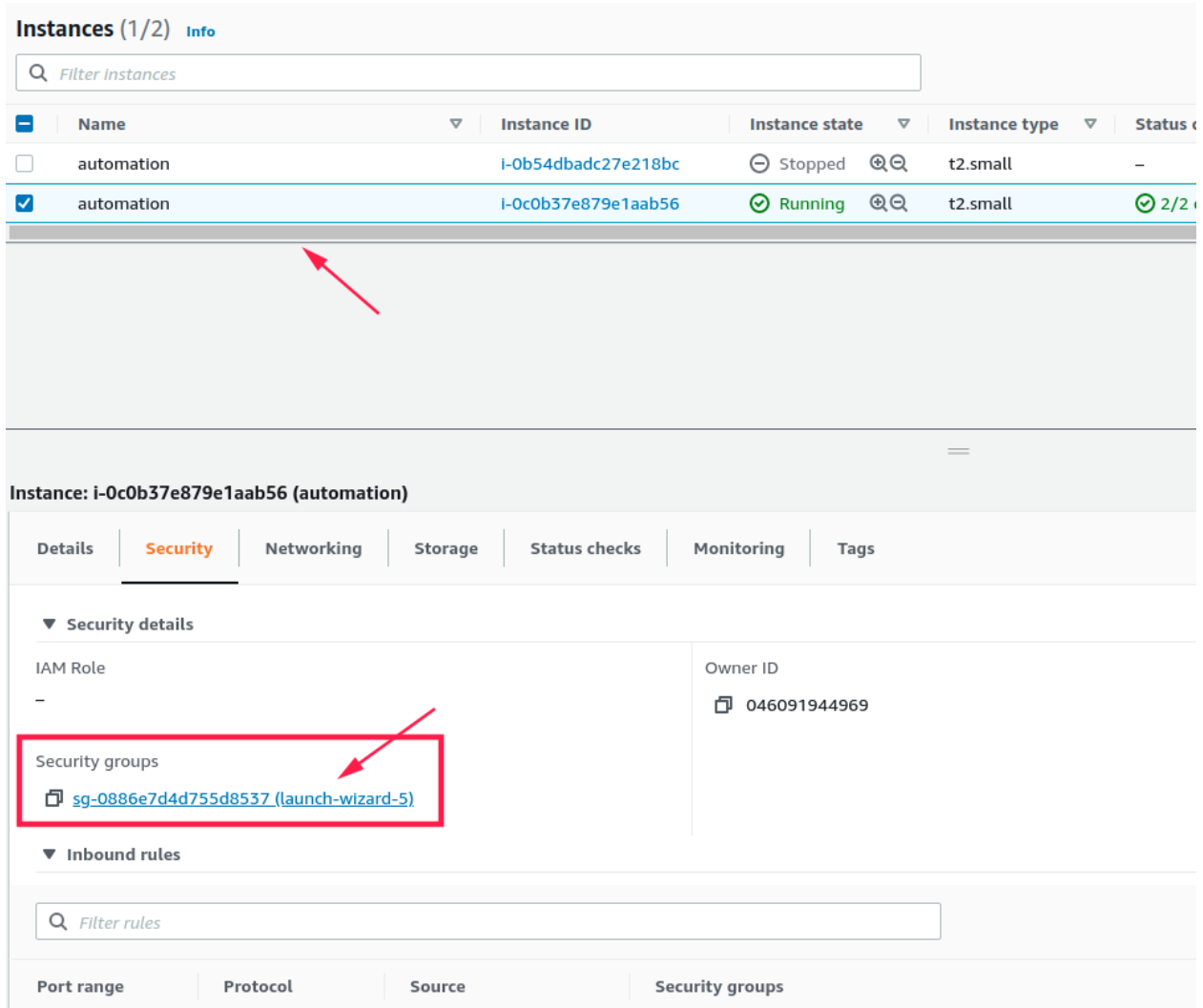
Popular la base de datos con el siguiente comando

```
node ./dev-data/data/import-dev-data.js --import
```

(Opcional) Para limpiar la base de datos ejecutar el siguiente comando

```
node ./dev-data/data/import-dev-data.js --delete
```

## 7. Modificar security group para permitir acceso a la máquina



The screenshot displays the AWS Management Console interface. At the top, the 'Instances (1/2)' section is visible, with a search bar labeled 'Filter Instances'. Below this, a table lists two instances. The first instance, 'automation' with ID 'i-0b54dbadc27e218bc', is in a 'Stopped' state. The second instance, 'automation' with ID 'i-0c0b37e879e1aab56', is in a 'Running' state. A red arrow points to the second instance. Below the table, the details for the selected instance 'i-0c0b37e879e1aab56 (automation)' are shown. The 'Security' tab is active, displaying 'Security details'. Under 'Security groups', a red box highlights the entry 'sg-0886e7d4d755d8537 (launch-wizard-5)', with a red arrow pointing to it. The 'Inbound rules' section is also visible below.

Name	Instance ID	Instance state	Instance type	Status
automation	i-0b54dbadc27e218bc	Stopped	t2.small	-
automation	i-0c0b37e879e1aab56	Running	t2.small	2/2

Instance: i-0c0b37e879e1aab56 (automation)

Details | **Security** | Networking | Storage | Status checks | Monitoring | Tags

▼ Security details

IAM Role: -

Owner ID: 046091944969

Security groups: **sg-0886e7d4d755d8537 (launch-wizard-5)**

▼ Inbound rules

Filter rules

Port range	Protocol	Source	Security groups
------------	----------	--------	-----------------

Entramos en el security group



EC2 > Security Groups > sg-0886e7d4d755d8537 - launch-wizard-5

### sg-0886e7d4d755d8537 - launch-wizard-5

Actions ▾

**Details**

Security group name launch-wizard-5	Security group ID sg-0886e7d4d755d8537	Description launch-wizard-5 created 2021-03-17T00:46:39.896-03:00	VPC ID vpc-08f01675
Owner 046091944969	Inbound rules count 1 Permission entry	Outbound rules count 1 Permission entry	

**Inbound rules** | Outbound rules | Tags

**Inbound rules (1)**

Type	Protocol	Port range	Source	Description - optional
SSH	TCP	22	0.0.0.0/0	-

Edit inbound rules

Luego editamos las inbound rules\

**Inbound rules** Info

Type Info	Protocol Info	Port range Info	Source Info	Description
SSH	TCP	22	Custom	
Custom TCP	TCP	3000	Anywhere	

Add rule

Agregamos una regla para acceder al puerto 3000 desde cualquier lado

## 8. Correr y probar la aplicación

Ejecutar el siguiente comando

```
npm run start
```

Luego obtenemos la ip de la máquina y probamos que la aplicación esté funcionando:

## Instances (1/2) [Info](#)

	Name	Instance ID	Instance state	Instance type
<input type="checkbox"/>	automation	i-0b54dbadc27e218bc	⊖ Stopped 🔍	t2.small
<input checked="" type="checkbox"/>	automation	i-0c0b37e879e1aab56	✔ Running 🔍	t2.small

### Instance: i-0c0b37e879e1aab56 (automation)

[Details](#) | [Security](#) | [Networking](#) | [Storage](#) | [Status checks](#) | [Monitoring](#) | [Tags](#)

#### ▼ Networking details [Info](#)

Public IPv4 address

 34.238.162.235 | [open address](#) 

Public IPv4 DNS

 ec2-34-238-162-235.compute-1.amazonaws.com | [open address](#) 

IPv6 addresses

—

Carrier IP addresses (ephemeral)


—

#### ▼ Network Interfaces [Info](#)

Private IPv4 addresses

 172.31.47.128

Private IPv4 DNS

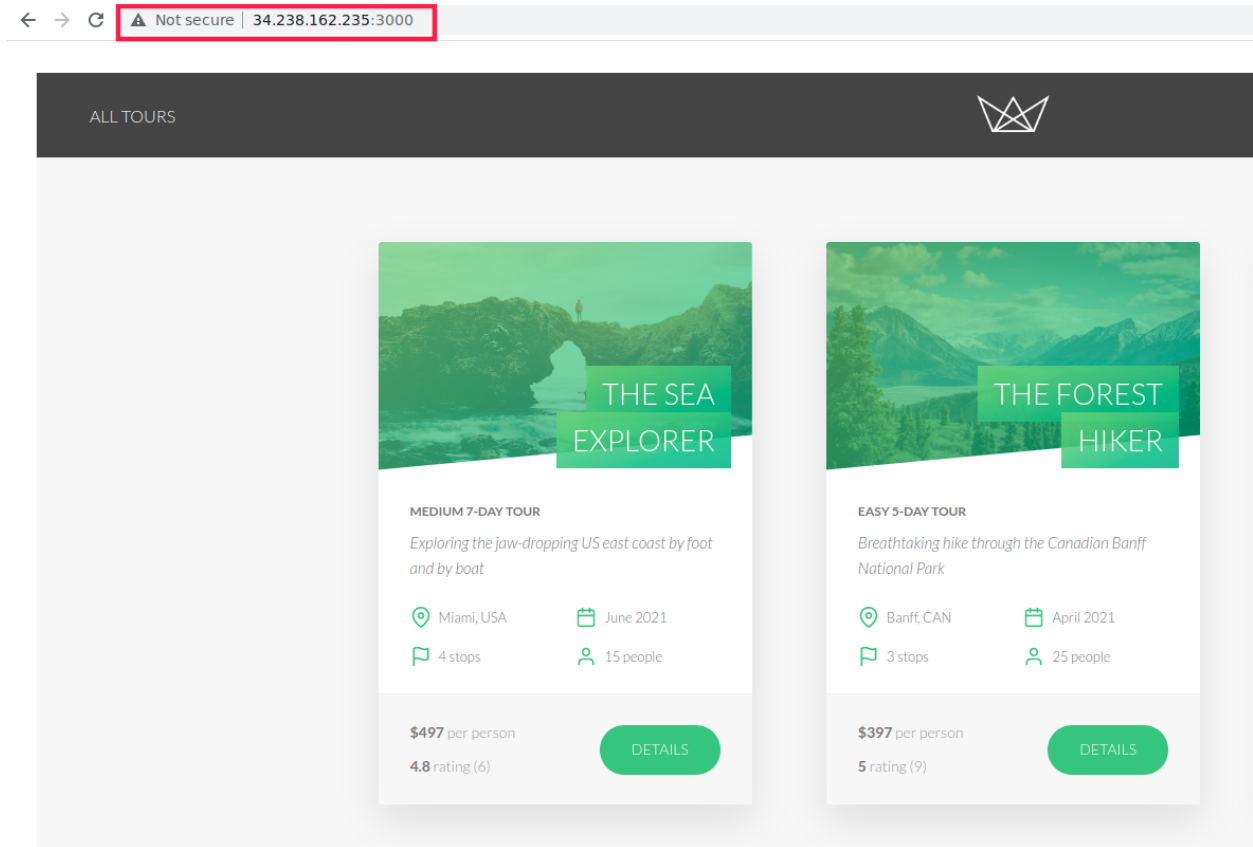
 ip-172-31-47-128.ec2.internal

Secondary private IPv4 addresses

—

Outpost ID

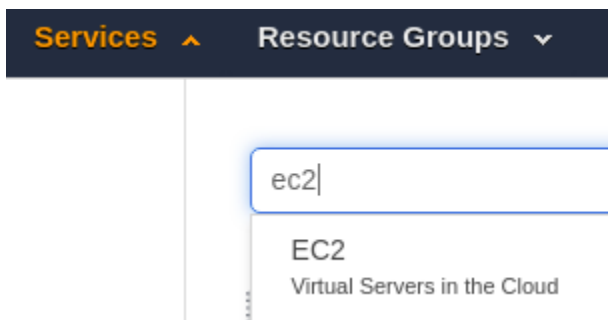
—



¡La aplicación está funcionando!

## 9. Crear Balanceador de Carga

Buscar e ingresar al servicio de EC2 (Elastic Cloud Compute)



## Loadbalancers “Create load balancer”

The screenshot displays the AWS Management Console interface. On the left, the navigation pane is visible with various service categories. The 'Load Balancing' category is expanded, and the 'Load Balancers' link is highlighted with a red rectangle. In the main content area, the 'Create Load Balancer' button is prominently displayed in blue, with a red arrow pointing to it. Below this button, there is a search bar and a table listing existing load balancers. The table has columns for Name, DNS name, State, and VPC. Two load balancers are listed: 'automation' and 'automation-lb', both in an 'active' state.

<input type="checkbox"/>	Name	DNS name	State	VPC
<input type="checkbox"/>	automation	automation-470356313.us-e...	active	vpc-
<input type="checkbox"/>	automation-lb	automation-lb-1453424076.u...	active	vpc-

Select a load balancer

Seleccionar “Create Load Balancer”

Seleccionar “Application Load Balancer”

Application Load Balancer

HTTP  
HTTPS

Create

Choose an Application Load Balancer when you need a flexible feature set for your web applications with HTTP and HTTPS traffic. Operating at the request level, Application Load Balancers provide advanced routing and visibility features targeted at application architectures, including microservices and containers.

[Learn more >](#)

## Step 1: Configure Load Balancer

### 1. Basic Configuration

Name	automation-lb
Scheme	internet-facing
IP address type	ipv4

### 2. Listeners

Configurar 2 listeners HTTP y HTTPS

Load Balancer Protocol	Load Balancer Port
HTTP	80
HTTPS (Secure HTTP)	443

### 3. Availability Zones

Especificar al menos las zonas us-east-1a y us-east-1b

**VPC** ⓘ vpc-fb2ec186 (172.31.0.0/16) (default) ⚙

**Availability Zones**

☒ **us-east-1a** subnet-bc2e4cf1 ⚙

**IPv4 address** ⓘ Assigned by AWS

☒ **us-east-1b** subnet-a06db1ff ⚙

**IPv4 address** ⓘ Assigned by AWS

Next : Configure Security Settings

## Step 2 Configure Security Settings

Seleccionar “Choose a certificate from ACM (recommended)”

Luego seleccionar certificado \*.devopscba.com

1. Configure Load Balancer 2. **Configure Security Settings** 3. Configure Security Groups 4. Configure Routing 5. Register Targets 6. Review

Step 2: Configure Security Settings

Select default certificate

AWS Certificate Manager (ACM) is the preferred tool to provision and store server certificates. If you previously stored a server certificate using IAM, you can deploy it to your load balancer. [Learn more](#) about HTTPS listeners and certificate management.

**Certificate type** ⓘ

☒ Choose a certificate from ACM (recommended)

☐ Upload a certificate to ACM (recommended)

☐ Choose a certificate from IAM

☐ Upload a certificate to IAM

[Request a new certificate from ACM](#)  
AWS Certificate Manager makes it easy to provision, manage, deploy, and renew SSL Certificates on the AWS platform. ACM manages certificate renewals for you. [Learn more](#)

**Certificate name** ⓘ \*.devopscba.com (arn:aws:acm:us-east-1:048091944969:certificate/acce-9) ⚙

Select Security Policy

**Security policy** ⓘ ELBSecurityPolicy-2016-08 ⚙

dar click en Next: Configure Security Groups

## Step 3 : Configure Security Groups

“Create a new security group” y dejar valores por defecto

### Step 3: Configure Security Groups

A security group is a set of firewall rules that control the traffic to your load balancer. On this page, you can add rules to allow specific traffic to reach your load balancer. First, decide whether to create a new security group or select an existing one.

Assign a security group ☒ Create a new security group ☐ Select an existing security group

Security group name

Description

Type <sup>(1)</sup>	Protocol <sup>(1)</sup>	Port Range <sup>(1)</sup>	Source <sup>(1)</sup>	
<input type="text" value="HTTP"/>	<input type="text" value="TCP"/>	<input type="text" value="80"/>	<input type="text" value="Custom"/>	<input type="text" value="0.0.0.0/0, ::/0"/>
<input type="text" value="HTTPS"/>	<input type="text" value="TCP"/>	<input type="text" value="443"/>	<input type="text" value="Custom"/>	<input type="text" value="0.0.0.0/0, ::/0"/>

Dar click en Next: Configure Routing

## Step 4 : Configure Routing

### 1. Target group

Target group	New target group
Name	automation-target-group
Target type	Instance
Protocol	HTTP
Port	3000

### 2. Health Checks

Protocol	HTTP
Path	/

### 3. Advance health check settings

Dejar valores por defecto

Next : Register Targets

## Step 5 : Register Targets

Seleccionar a la instancia de EC2 y dar click en Add to registered

### Registered targets

To deregister instances, select one or more registered instances and then click Remove.

Remove

<input type="checkbox"/>	Instance	Name	Port	State
<input type="checkbox"/>	i-0c0b37e879e1aab56	automation	3000	<span>●</span> running

### Instances

To register additional instances, select one or more running instances, specify a port, and then click Add. The default port is the port specified for

Add to registered

 on port

X

<input type="checkbox"/>	Instance	Name	State	Security groups	Zone
<input checked="" type="checkbox"/>	i-0c0b37e879e1aab56	automation	<span>●</span> running	launch-wizard-5	us-east-1a

Next : Review

## Step 6 : Review

Crear y luego dar click en Close

### Load Balancer Creation Status

✔ Successfully created load balancer

Load balancer [automation-lb](#) was successfully created.  
Note: It might take a few minutes for your load balancer to be fully set up and ready to route traffic, and for the targets to complete the registration process and pass the initial health checks.

Suggested next steps

- Discover other services that you can integrate with your load balancer. Visit the **Integrated services** tab within [automation-lb](#).
- Consider using AWS Global Accelerator to further improve the availability and performance of your applications. [AWS Global Accelerator console](#)

Close



## Redireccionar llamadas que vienen por HTTP a HTTPS

Dentro del dashboard de los balanceadores de carga seleccionar la tab “Listeners”

Create Load Balancer Actions ▾

Filter by tags and attributes or search by keyword

<input type="checkbox"/>	Name	DNS name	State	VPC ID	Availability Zones
<input type="checkbox"/>	automation	automation-470356313.us-e...	active	vpc-08f01675	us-east-1a, us-east-1b
<input checked="" type="checkbox"/>	automation-lb	automation-lb-696561492.us...	provisioning	vpc-08f01675	us-east-1a, us-east-1b

Load balancer: automation-lb

Description Listeners Monitoring Integrated services Tags

A listener checks for connection requests using its configured protocol and port, and the load balancer uses the listener rules to route requests to targets. You can

Add listener Edit Delete

<input type="checkbox"/>	Listener ID	Security policy	SSL Certificate	Rules
<input type="checkbox"/>	HTTP : 80 arn...7ffbfc3692109386 ▾	N/A	N/A	Default: forwarding to automati <a href="#">View/edit rules</a> ←
<input type="checkbox"/>	HTTPS : 443 arn...afbad8fc1dee5bd ▾	ELBSecurityPolicy-2016-08	Default: acceaafa-19a2-48e5-a3d2-f1bdbc5526a6 (ACM) <a href="#">View/edit certificates</a>	Default: forwarding to automati <a href="#">View/edit rules</a>

Dentro del Listener del puerto 80, seleccionar “View/edit rules”

Editar la regla

<

Rules

+

↕

-

Select the rule to edit. Each rule must include one action of type forward, redirect, fixed response.

loadbalancer | HTTP:80 (1 rules)

▶ Rule limits for condition values, wildcards, and total rules.

last

HTTP 80: default action

*This rule cannot be moved or deleted*

IF

✓ Requests otherwise not routed

Rules

+

↕

-

loadbalancer | HTTP:80

↺ ⓘ

Select the rule to edit. Each rule must include one action of type forward, redirect, fixed response.

Cancel

Update

loadbalancer | HTTP:80 (1 rules)

▶ Rule limits for condition values, wildcards, and total rules.

Edit Rule

RULE ID		IF (all match)	THEN
last	arn...c6651	✓ Requests otherwise not routed	<div> <div>1. Forward to</div> <div>Instance: 1 (100%)</div> <div>Group-level stickiness: Off</div> <div>✕</div> </div> <div> <div>+</div> <div>Add action</div> <div>▼</div> </div>

- Borrar “Forward to”
- Add Action “Redirect to” como muestra la figura y dar click en el “check mark”

Edit Rule

RULE ID	IF (all match)	THEN
last <span>arn...c6651</span> ▼	✓ Requests otherwise not routed	<div>1. Redirect to... <span>🗑️</span></div> <div> <span>HTTPS</span>    <span>443</span>    Original value: #{port} </div> <div>Original host, path, query <span>▼</span></div> <div>301 - Permanently moved <span>▼</span></div> <div>Switch to full URL</div> <div style="text-align: center;">✓</div> <div><span>+</span> Add action <span>▼</span></div>

### 3. Dar click en Update

< Rules + ✎ ⬆️ ⬇️
loadbalancer | HTTP:80 ▼ 🔄 ?

Select the rule to edit. Each rule must include one action of type forward, redirect, fixed response.

Cancel
Update

loadbalancer | HTTP:80 (1 rules)
 

▶ Rule limits for condition values, wildcards, and total rules.

Edit Rule

RULE ID	IF (all match)	THEN
last <span>arn...c6651</span> ▼	✓ Requests otherwise not routed	<div>✎ 1. Redirect to <code>https://{host}:443/#{path}?#{query}</code> <span>🗑️</span></div> <div>Status code: HTTP_301</div> <div><span>+</span> Add action <span>▼</span></div>

## 10. Reconfigurar el grupo de seguridad de la instancia

Instances (1/2) [Info](#)

Filter instances

	Name	Instance ID	Instance state	Instance type	Status check
<input type="checkbox"/>	automation	i-0b54dbadc27e218bc	Stopped	t2.small	-
<input checked="" type="checkbox"/>	automation	i-0c0b37e879e1aab56	Running	t2.small	2/2 checks passed

Instance: i-0c0b37e879e1aab56 (automation)


Details **Security** Networking Storage Status checks Monitoring Tags

▼ Security details


IAM Role

-

Security groups

 [sg-0886e7d4d755d8537 \(launch-wizard-5\)](#)

Owner ID

 046091944969

▼ Inbound rules

Filter rules

Inbound rules Outbound rules Tags

Inbound rules (3) [Edit inbound rules](#)

Type	Protocol	Port range	Source	Description - optional
SSH	TCP	22	0.0.0.0/0	-
Custom TCP	TCP	3000	0.0.0.0/0	-
Custom TCP	TCP	3000	::/0	-

Editamos las reglas para que solo esté disponible el acceso a la instancia solamente desde el grupo de seguridad del loadbalancer

**Edit inbound rules** [Info](#)

Inbound rules control the incoming traffic that's allowed to reach the instance.

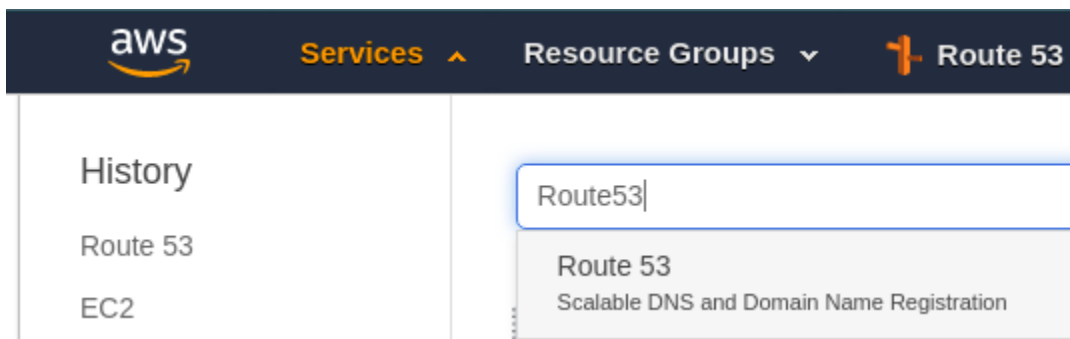
Type <a href="#">Info</a>	Protocol <a href="#">Info</a>	Port range <a href="#">Info</a>	Source <a href="#">Info</a>	Description - optional <a href="#">Info</a>	
SSH	TCP	22	Custom	<input type="text" value="0.0.0.0"/>	<input type="button" value="Delete"/>
Custom TCP	TCP	3000	Custom	<input type="text" value="sg-0288714a536f1a537"/>	<input type="button" value="Delete"/>

NOTE: Any edits made on existing rules will result in the edited rule being deleted and a new rule created with the new details. This will cause traffic that depends on that rule to be dropped for a very brief period of time until the new rule can be created.

Save rules

## 11. Crear registro en Route53

Buscar el servicio de route53



Dentro de Route53 Dashboard seleccionar “Hosted zones”

## DNS management

1

Hosted zones ⓘ

Seleccionar la “hosted zone” configurada para tu usuario

Route 53 > Hosted zones

**Hosted zones (1)**  
Automatic mode is the current search behavior optimized for best filter results. [To change modes go to settings.](#)

[Refresh](#) [View details](#) [Edit](#) [Delete](#) [Create hosted zone](#)

< 1 > ⓘ

	Domain name ▾	Type ▾	Created by ▾	Record count ▾	Description ▾	Hosted zone ID ▾
<input type="radio"/>	<a href="#">devopscba.com</a>	Public	Route 53	131	dev ops cordoba	Z00457348NBELY69V1F

Seleccionar “Create Record Set” y completar los datos a la izquierda

Name	automation.<tuusuario>.devopscba.com
Type	CNAME
Value	DNS de loadbalancer

Create Load Balancer

Actions

Q

Filter by tags and attributes or search by keyword

<input type="checkbox"/>	Name	DNS name	State	VPC ID	Availability Zones	Type
<input type="checkbox"/>	automation	automation-470356313.us-e...	active	vpc-08f01675	us-east-1a, us-east-1b	applicat
<input checked="" type="checkbox"/>	automation-lb	automation-lb-696561492.us...	active	vpc-08f01675	us-east-1a, us-east-1b	applicat

Load balancer:

automation-lb

Description

Listeners

Monitoring

Integrated services

Tags

Basic Configuration

Name

automation-lb

ARN

arn:aws:elasticloadbalancing:us-east-1:046091944969:loadbalancer/app/automation-lb/25d2eca7a25e5915

DNS name

automation-lb-696561492.us-east-1.elb.amazonaws.com

(A Record)

State

active

Type

application

Scheme

internet-facing

IP address type

ipv4

Edit IP address type

VPC

vpc-08f01675

Route 53

>

Hosted zones

>

devopscba.com

>

Create record

Quick create record

Info

Switch to wizard

Add another record

Record 1

Delete

Record name

Info

automation

.devopscba.com

Valid characters: a-z, 0-9, ! " # \$ % & ' ( ) \* + , - / : ; < = > ? @ [ \ ] ^ \_ ` { } . ~

Record type

Info

CNAME – Routes traffic to another domain n...

Value

Info

automation-lb-696561492.us-east-1.elb.amazonaws.com

Enter multiple values on separate lines.

TTL (seconds)

Info

300

1m

1h

1d

Recommended values: 60 to 172800 (two days)

Routing policy

Info

Simple routing

Cancel

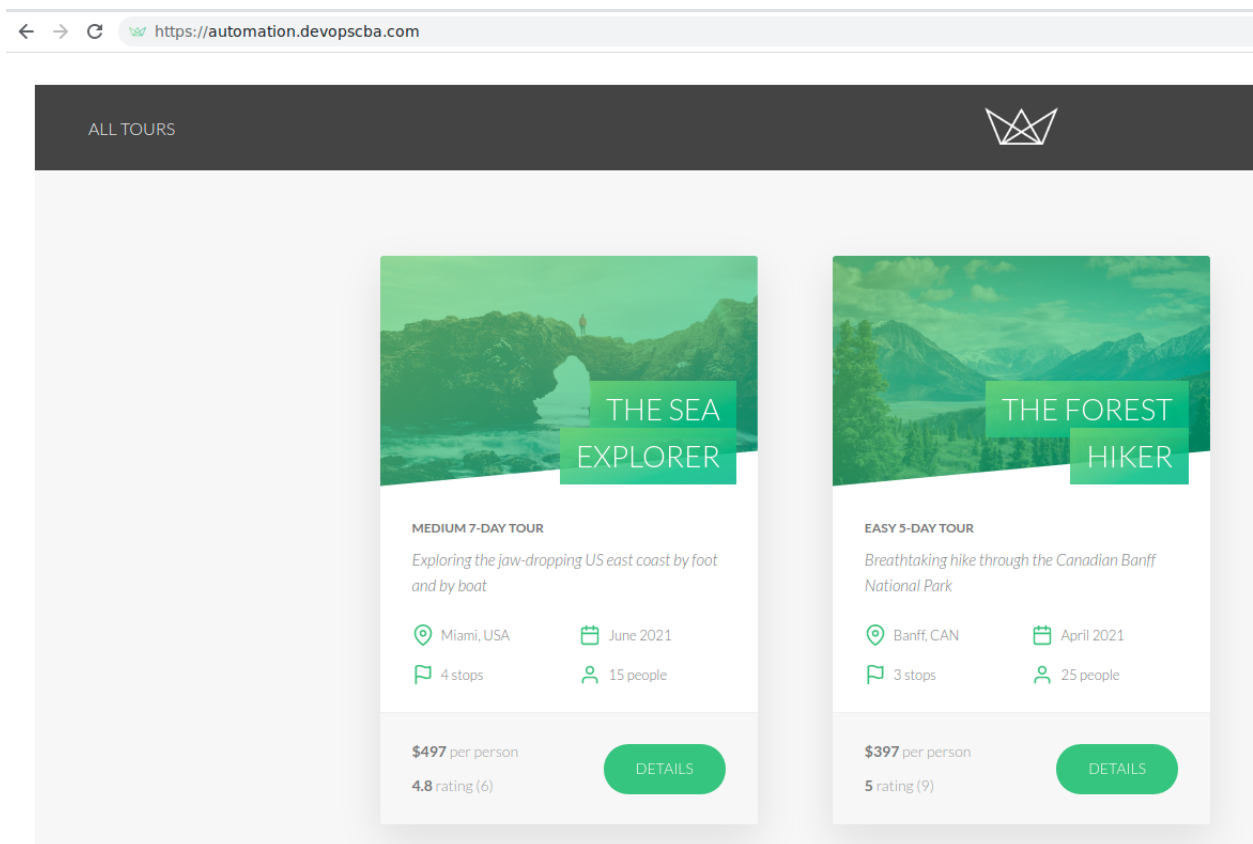
Create records

Create Record

## 12. Probar acceder a la aplicacion a traves del loadbalancer

Colocar en el browser

- En el caso de este ejemplo
  - <https://automation.devopscba.com>



La app funciona correctamente!



# Ejecutar los siguiente pasos en una máquina local

Preferiblemente con el sistema operativo Ubuntu

## 13. Instalar python 3.9

Ejecutar los siguientes comandos

```
sudo apt update -y
sudo apt install software-properties-common -y
sudo add-apt-repository ppa:deadsnakes/ppa
sudo apt install python3.9 python3.9-venv python3.9-dev -y
python3.9 --version
```

## 14. Crear un ambiente virtual de python

Ejecutar el siguiente comando

```
python3.9 -m venv ~/automation
```

## 15. Entrar en el folder automation

Ejecutar el siguiente comando

```
cd ~/automation
```

## 16. Habilitar el ambiente virtual

Ejecutar el siguiente comando

```
source /bin/activate
```

## 17. Instalar Selenium

17.1 Ejecutar el siguiente comando

```
pip install selenium
```

17.2 Descargar el driver de Chrome

En el siguiente link

- <https://chromedriver.chromium.org/downloads>

Seleccionar el driver de acuerdo a la versión de chrome que tengas instalada en tu máquina local

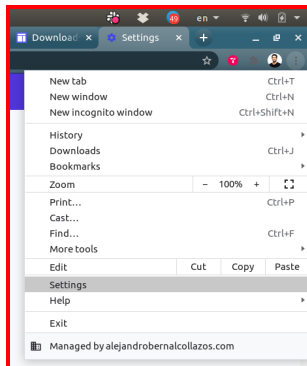
### Downloads

#### Current Releases

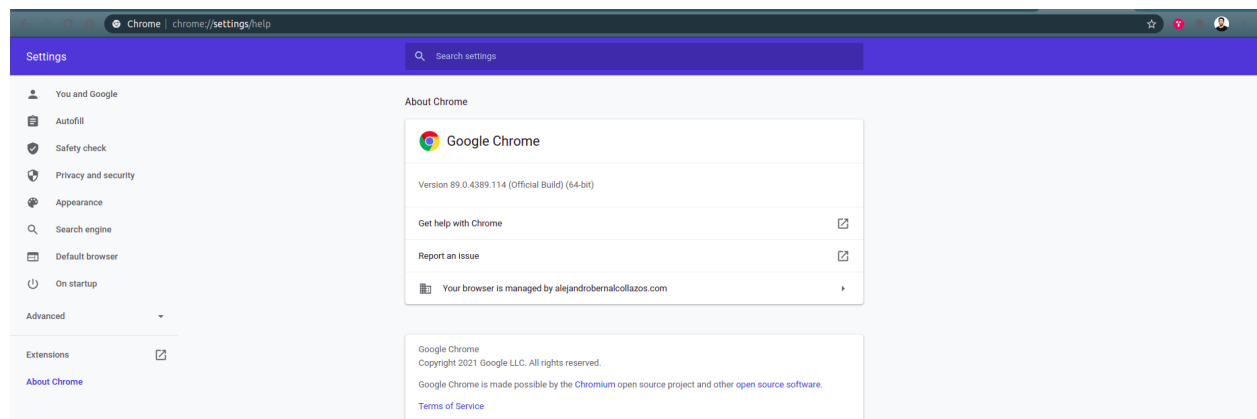
- If you are using Chrome version 90, please download [ChromeDriver 90.0.4430.24](#)
- If you are using Chrome version 89, please download [ChromeDriver 89.0.4389.23](#)
- If you are using Chrome version 88, please download [ChromeDriver 88.0.4324.96](#)
- If you are using Chrome version 87, please download [ChromeDriver 87.0.4280.88](#)
- For older version of Chrome, please see below for the version of ChromeDriver that supports it.

Para ver qué versión de Chrome tenemos instalado llevar a cabo los siguientes pasos

### 17.2.1 Ir a la parte de Settings de Chrome



### 17.2.2 Seleccionar la parte de “About Chrome” y verificar la versión de Chrome



## 17.3 Unzip del archivo que contiene el driver

Ejecutar el comando

```
unzip chromedriver_linux64.zip
```

17.4 En la máquina local, luego de descargar el driver ubicarlo dentro de una carpeta que esté en la variable PATH

Por ejemplo en el sistema operativo Linux ejecutar el siguiente comando

```
mv chromedriver /usr/local/bin
```

## 18. Crear un archivo que va a contener nuestras pruebas de automatización

Crear un archivo con el siguiente nombre

- automation.py

## 19. Agregar código en el archivo

Agregar el siguiente código

```
from selenium import webdriver
import time

browser = webdriver.Chrome()

browser.get("http://automation.devopscba.com")

# Login locator

login_xpath_locator = "//nav[@class='nav nav--user']/a[@class='nav__el']"

# Login element

login_button = browser.find_element_by_xpath(login_xpath_locator)

# Click on the login button

login_button.click()

# Wait for 3 seconds

time.sleep(3)

# Email locator
```

```
email_css_locator = "input[id='email']"

# Email element

email_input = browser.find_element_by_css_selector(email_css_locator)

# Set data into the email field

email_input.send_keys("alejandro@example.com")
```

## 20. Correr el programa

Ejecutar el siguiente comando

```
python automation.py
```