

**UNIVERSIDAD RAFAEL LANDÍVAR**

**FACULTAD DE INGENIERÍA**

**VIRTUALIZACIÓN**

**SECCIÓN 1 VESPERTINA**

**MGTR. JOSSUE LEONEL SAMAYOA PORTILLO**

# **TERRAFORM CLOUD**

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**GUATEMALA DE LA ASUNCIÓN, ABRIL 24 DE 2024**

```
Archivo  Editor  Selección  Ver  Ir  Ejecutar  Terminal  Ayuda  Terraform
package.json M  index.js  dockerfile M

# index.js
2 const moment = require('moment');
3 const app = express(); //formato json
4 app.use(express.json()); //aceptación de información
5 app.use(express.urlencoded()); //comunicación
6
7 app.get('/', (request, response) => {
8   response.setHeader('Content-Type', 'application/json');
9   response.end(JSON.stringify({fechaDeHoy:moment().format('DD-mm-yyyy hh:mm:ss')}));
10 });
11
12 //servidor
13 const PUERTO = process.env.PORT || 3001;
14 app.listen(PUERTO, () => {
15   console.log('el servidor está escuchando en http://localhost:3001')
16 });

// npm install moment --save

PROBLEMAS 0  SALIDA  TERMINAL  PUERTOS  SEARCH ERROR  SQL CONSOLE  GITLENS  COMENTARIOS  CONSOLA DE DEPURACIÓN
=> [7/9] COPY package*.json ./ 0.1s
=> [8/9] RUN npm install 2.3s
=> [9/9] COPY . 0.2s
=> exporting to image 2.7s
=> exporting layers 2.7s
=> writing image sha256:0e287e7b74d1b1b8f6405e0707d98496aeb4c9a5a902640926c05e634dc3de 0.0s
=> naming to docker.io/library/terraformcloud 0.0s

What's Next?
View a summary of image vulnerabilities and recommendations - docker scout quickview
0 docker run -p 3001:3001 terraformcloud
Wed, 24 Apr 2024 05:15:55 GMT body-parser deprecated undefined extended: provide extended option at index.js:17
el servidor está escuchando en http://localhost:3001
0
```

```
Archivo  Editor  Selección  ...  Terraform
JS  index.js  dockerfile M  main.tf  filebeat.yml U

main.tf
1 terraform {
2   required_providers {
6   }
7   }
8
9   required_version = " >= 1.2.0"
10 }

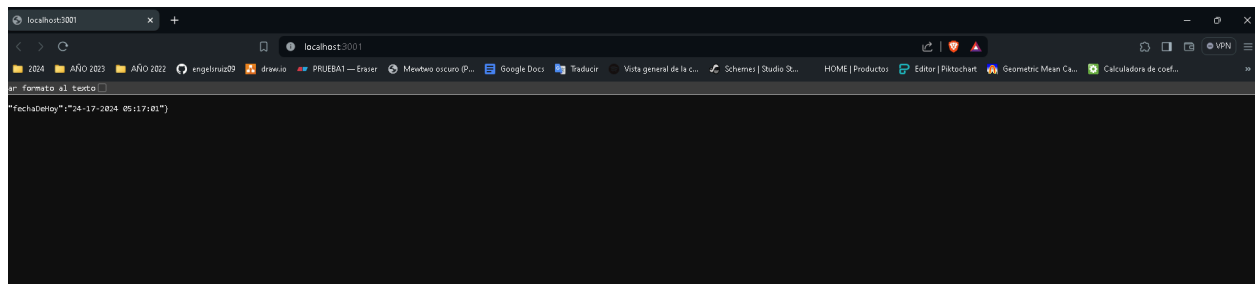
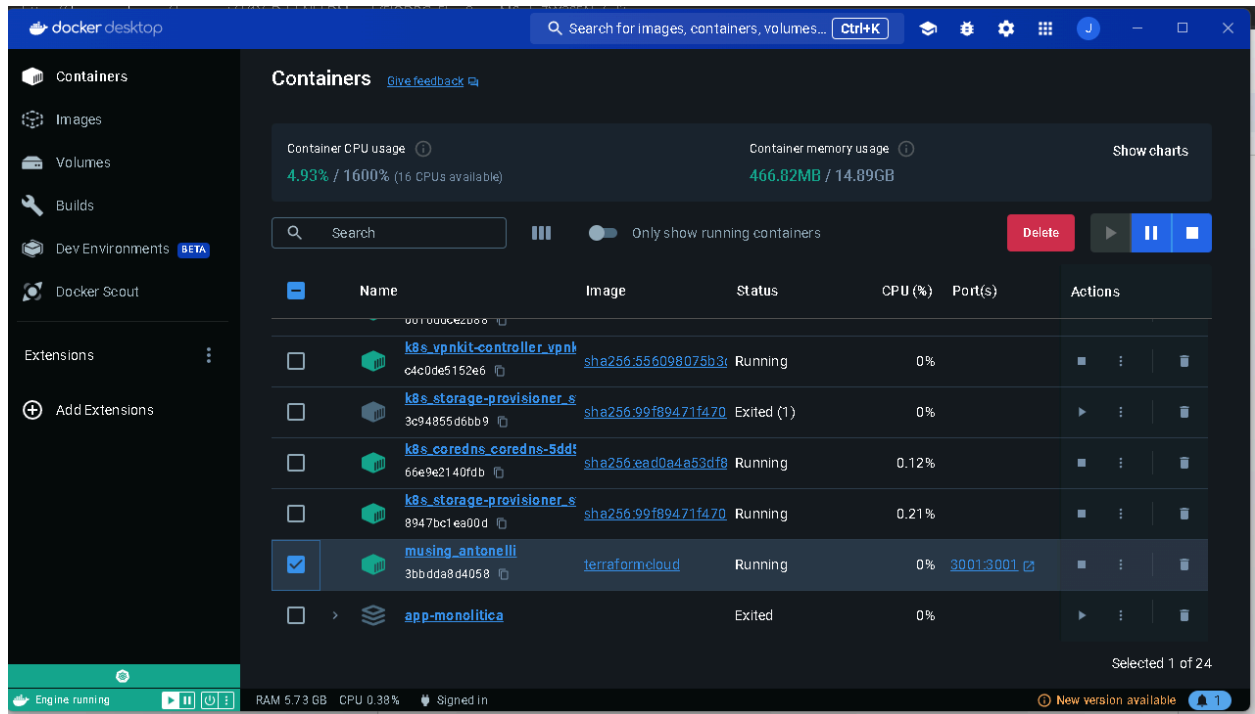
PROBLEMAS 3  SALIDA  TERMINAL  PUERTOS  SEARCH ERROR  ...  pwsh + v  ...  ^ x
aws iam create-user --user-name tf-developer
{
  "User": {
    "Path": "/",
    "UserName": "tf-developer",
    "UserId": "AIDAX5GT6EVAQIT47AJTL",
    "Arn": "arn:aws:iam::543757837633:user/tf-developer",
    "CreateDate": "2024-04-25T05:01:14+00:00"
  }
}

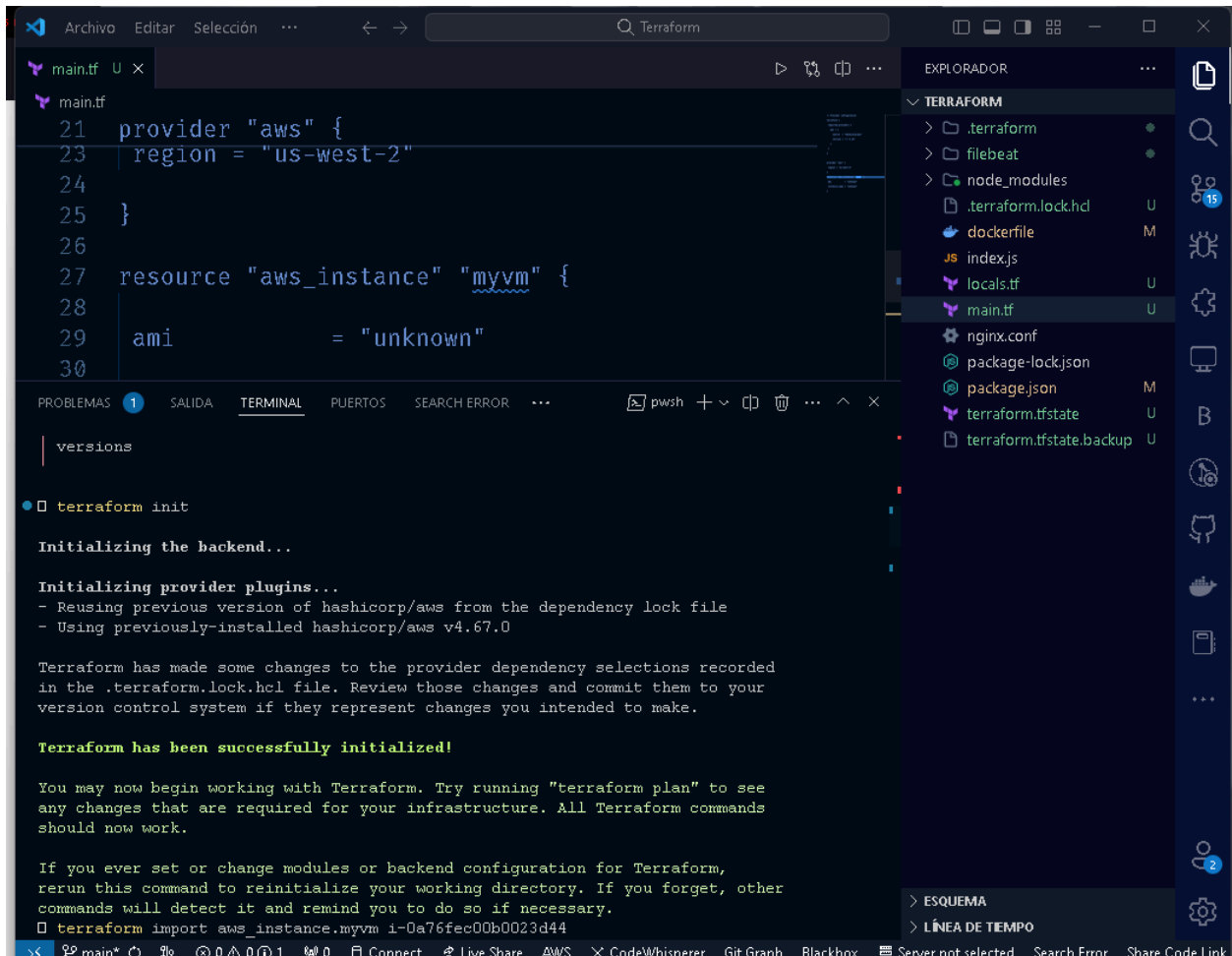
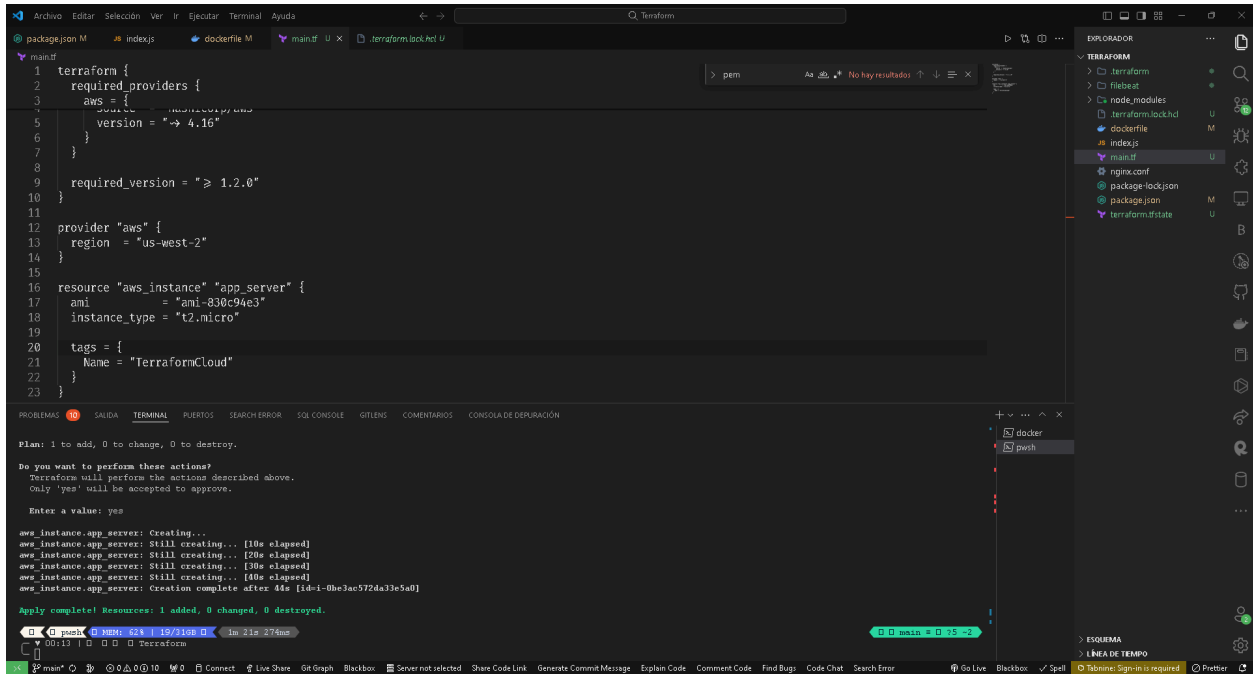
aws iam add-user-to-group --user-name tf-developer --group-name Devs

An error occurred (NoSuchEntity) when calling the AddUserToGroup operation: The group with name Devs cannot be found.
aws iam create-access-key --user-name tf-developer
{
  "AccessKey": {
    "UserName": "tf-developer",
    "AccessKeyId": "AKIAX5GT6EVAVWPUGVNF",
  }
}

> ESQUEMA
> LÍNEA DE TIEMPO
```







ArchivoEditarSelección... Terraform

main.tf

21 provider "aws" {  
23 | region = "us-west-2"  
24 |  
25 | }  
26 |  
27 resource "aws\_instance" "myvm" {  
28 |  
29 | ami = "unknown"  
30 | }

EXPLORADOR

TERRAFORM  
terraform  
filebeat  
node\_modules  
.terraform.lock.hcl  
dockerfile  
index.js  
locals.tf  
main.tf  
nginx.conf  
package-lock.json  
package.json  
terraform.tfstate  
terraform.tfstate.backup

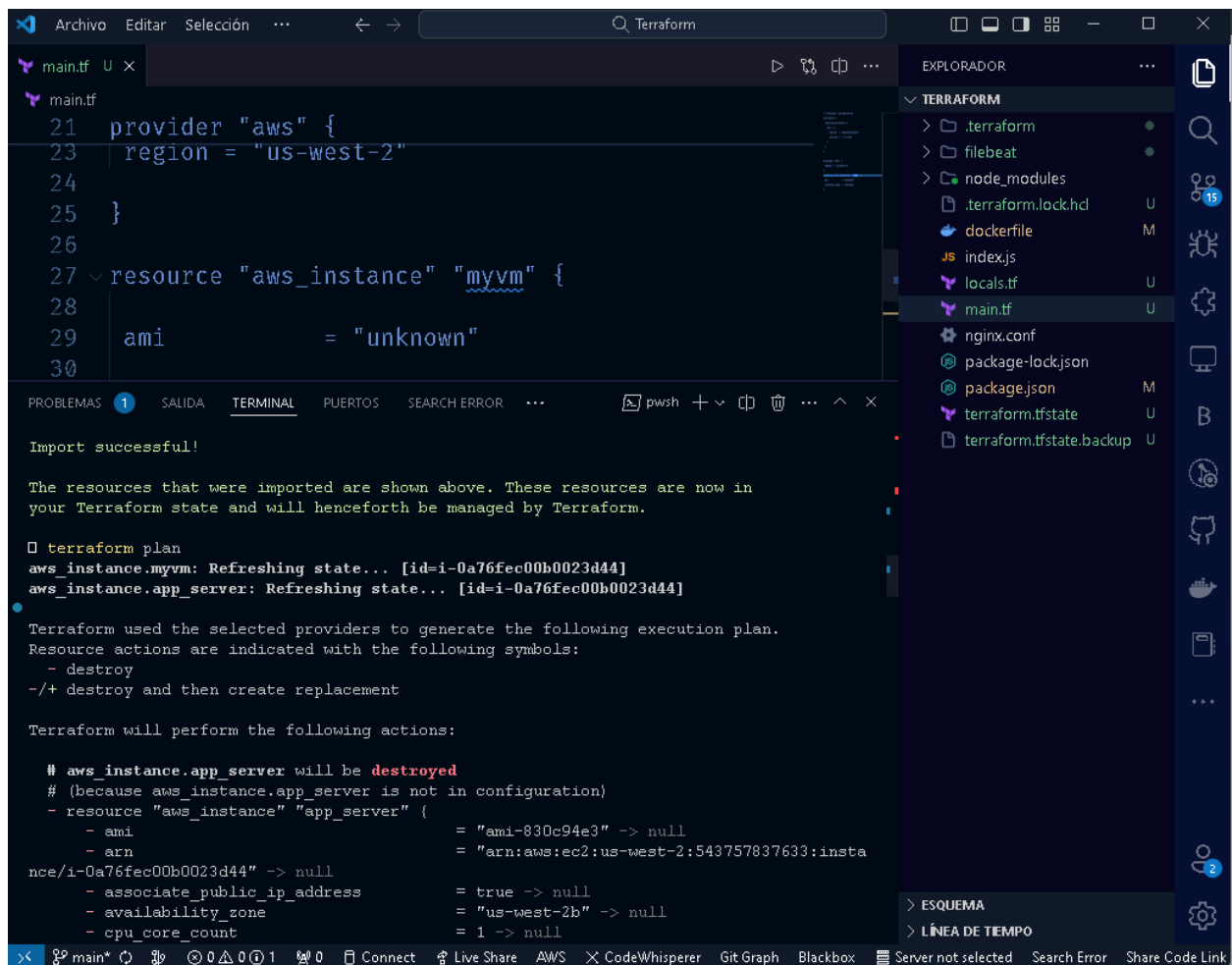
PROBLEMAS 1 SALIDA TERMINAL PUERTOS SEARCH ERROR

pwsh

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 import aws\_instance.myvm i-0a76fec00b0023d44  
aws\_instance.myvm: Importing from ID "i-0a76fec00b0023d44"...  
aws\_instance.myvm: Import prepared!  
Prepared aws\_instance for import  
aws\_instance.myvm: Refreshing state... [id=i-0a76fec00b0023d44]  
  
Import successful!  
  
The resources that were imported are shown above. These resources are now in your Terraform state and will henceforth be managed by Terraform.  
  
 terraform plan  
aws\_instance.myvm: Refreshing state... [id=i-0a76fec00b0023d44]  
aws\_instance.app\_server: Refreshing state... [id=i-0a76fec00b0023d44]  
  
Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:  
- destroy  
-/+ destroy and then create replacement  
  
Terraform will perform the following actions:

ESQUEMA  
LÍNEA DE TIEMPO

>< main\* 0 0 0 0 1 0 0 Connect Live Share AWS CodeWhisperer Git Graph Blackbox Server not selected Search Error Share Code Link



Archivo Editar Selección ... Terraform

main.tf U X

```
21 provider "aws" {
22   region = "us-west-2"
23 }
24
25 resource "aws_instance" "myvm" {
26   ami = "unknown"
27 }
```

PROBLEMAS 1 SALIDA TERMINAL PUERTOS SEARCH ERROR ... pwsh + - ^ x

```
- volume_id = "vol-0ccb7b578fd968859" -> null
- volume_size = 8 -> null
- volume_type = "standard" -> null
  # (1 unchanged attribute hidden)
}

# aws_instance.myvm must be replaced
-/+ resource "aws_instance" "myvm" {
  ~ ami = "ami-830c94e3" -> "unknown" # forces replacement
  ~ arn = "arn:aws:ec2:us-west-2:543757837633:instance/i-0a76fec00b0023d44" -> (known after apply)
  ~ associate_public_ip_address = true -> (known after apply)
  ~ availability_zone = "us-west-2b" -> (known after apply)
  ~ cpu_core_count = 1 -> (known after apply)
  ~ cpu_threads_per_core = 1 -> (known after apply)
  ~ disable_api_stop = false -> (known after apply)
  ~ disable_api_termination = false -> (known after apply)
  ~ ebs_optimized = false -> (known after apply)
  ~ hibernation = false -> null
  + host_id = (known after apply)
  + host_resource_group_arn = (known after apply)
  + iam_instance_profile = (known after apply)
  ~ id = "i-0a76fec00b0023d44" -> (known after apply)
```

EXPLORADOR

- TERRAFORM
  - .terraform
  - filebeat
  - node\_modules
    - .terraform.lock.hcl U
    - dockerfile M
    - index.js
  - locals.tf U
  - main.tf U
  - nginx.conf
  - package-lock.json
  - package.json M
  - terraform.tfstate U
  - terraform.tfstate.backup U
- ESQUEMA
- LÍNEA DE TIEMPO

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