

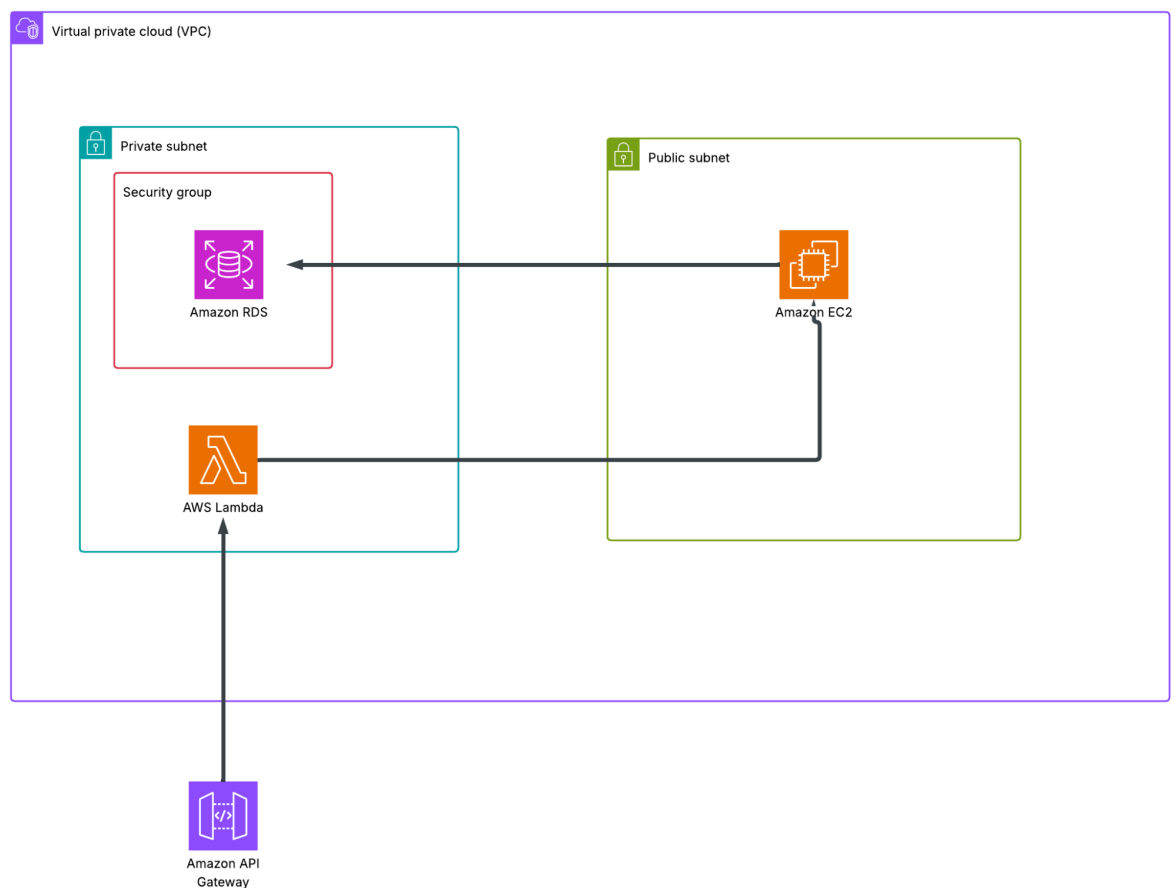
Relatório de Configuração do Ambiente na Nuvem

1. Integrantes do Grupo

1. 10418105 - Leonardo Rodrigues Hofjud - API Gateway + Lambda + Docker + Documentação
 2. 10408394 - Pedro Andrade - EC2 + Backend + RDS + VPC + Frontend
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2. Visão Geral da Arquitetura

2.1. Diagrama da Infraestrutura



3. Componentes da Infraestrutura

3.1. Amazon RDS (Relational Database Service) - PostgreSQL

Connectivity & security		
Endpoint & port	Networking	Security
Endpoint  databasetestando.cnrbivhxjtv.us-east-1.rds.amazonaws.com	Availability Zone us-east-1a	VPC security groups ProjetoP2Nuvem (sg-00d2bf392cab933f2) ✔ Active
Port 5432	VPC nanuvem-vpc (vpc-07617e0dad5fb3e6d)	Publicly accessible No
	Subnet group rds-ec2-db-subnet-group-1	Certificate authority Info rds-ca-rsa2048-g1
	Subnets subnet-0fa59b6c6b02c06ab subnet-03c413084135d7bc8 subnet-0f5973a69556a3511 subnet-0566d02bfc95b9474 subnet-0a2339e0e895b6c3c	Certificate authority date May 25, 2061, 20:34 (UTC-03:00)
	Network type IPv4	DB instance certificate expiration date May 25, 2026, 15:49 (UTC-03:00)

3.2. Amazon API Gateway

- Tipo de API: REST
- Endpoints Criados:
 - [ANY /Report]

The top screenshot shows the 'Method request settings' for the `/Report` method. The settings include:

- Authorization:** NONE
- Request validator:** None
- API key required:** False
- SDK operation name:** Generated based on method and path
- Request paths:** 0 (No request paths)

The bottom screenshot shows the 'Integration request settings' for the `/Report - ANY - Method execution`. The settings include:

- Integration type:** Lambda
- Lambda proxy integration:** True
- Timeout:** Default (30 seconds)
- Region:** us-east-1
- Lambda function:** Report

- **Integração com: Lambda**

3.3. AWS Lambda

- **Funções Criadas:**
 - Foi criada uma função lambda para atuar como “handler” e retornar estatísticas, sem acesso direto ao banco de dados.

Report

[Throttle](#)[Copy ARN](#)[Actions](#)

✓ The trigger Report-API was successfully added to function Report. The function is now receiving events from the trigger.

Function overview [Info](#)

[Export to Infrastructure Composer](#)[Download](#)[Diagram](#) [Template](#) **Report** Layers

(0)

 **API Gateway**[+ Add trigger](#)[+ Add destination](#)


Description

-

Last modified

11 minutes ago

Function ARN

 arn:aws:lambda:us-east-1:919313029439:function:Report

Function URL

[Info](#)[Lambda](#) > [Functions](#) > Report

EXPLORER

REPORT

JS index.mjs

DEPLOY

Deploy (⇧⌘U)

Test (⇧⌘I)

TEST EVENTS [SELECTED: REPORT]

Create new test event

Private saved events

Report

ENVIRONMENT VARIABLES

JS index.mjs

JS index.mjs > ...

```
1
2 export const handler = async () => {
3   const url = "http://3.216.147.169:8080/task";
4   const resp = await fetch(url);
5   const tasks = await resp.json();
6
7   const concluidas = tasks.filter(t => t.status === "
8
9
10  return {
11    statusCode: 200,
12    headers: { "Content-Type": "application/json" },
13    body: JSON.stringify({
14      total: tasks.length,
15      concluidas: concluidas.length,
16      titulosConcluidas: concluidas.map(t => t.titulo
17    });
18  };
19
```

PROBLEMS OUTPUT CODE REFERENCE LOG TERMINAL

Status: Succeeded

Test Event Name: Report

Response:

```
{
  "statusCode": 200,
  "headers": {
    "Content-Type": "application/json"
  },
  "body": "{\"total\":6,\"concluidas\":5,\"titulosConcluidas\":[\"Amazing AWS\",\"Hacked\",\"Criar tarefa na nuvem \",\"Apresentacao\", \"VideoAWS!!!\"]}"
```

Triggers (1) [Info](#)

[Fix errors](#)[Edit](#)[Delete](#)[Add trigger](#)

< 1 >

☐ Trigger**API Gateway: Report-API**

arn:aws:execute-api:us-east-1:919313029439:uuxf1j5wqj/*/*Report

API endpoint: <https://uuxf1j5wqj.execute-api.us-east-1.amazonaws.com/default/Report>

Details

☐

API type: REST

Authorization: NONE

isComplexStatement: No

Method: ANY

Resource path: /Report

Service principal: apigateway.amazonaws.com

Stage: default

Statement ID: lambda-7b70879b-4b07-49e4-8f3a-1957fca5bd08

q736y3xc84.execute-api.us-east-1.amazonaws.com/default/seraQueVaiEstilos de formatação ☐

```
{"total":4,"concluidas":3,"titulosConcluidas":["Amazing AWS","Hacked","Criar tarefa na nuvem "]}
```

3.4. Amazon EC2

Foi criada uma instância do EC2, armazenando o back-end e o front-end, com o sistema operacional da Amazon Linux, e seus devidos grupos de segurança configurados.

Instance summary for i-0a82bd55fdcdecf71 (EcFront) Info

Updated 13 minutes ago

Instance ID

i-0a82bd55fdcdecf71

IPv6 address

–

Hostname type

IP name: ip-10-0-12-185.ec2.internal

Answer private resource DNS name

–

Auto-assigned IP address

–

IAM Role

–

IMDSv2

Required

Public IPv4 address

3.216.147.169 | [open address](#)

Instance state

Running

Private IP DNS name (IPv4 only)

ip-10-0-12-185.ec2.internal

Instance type

t2.micro

VPC ID

vpc-07617e0dad5fb3e6d (nanuvem-vpc) | [open address](#)

Subnet ID

subnet-0bd4c54d60db8bf31 (nanuvem-subnet-public1-us-east-1a) | [open address](#)

Instance ARN

arn:aws:ec2:us-east-1:919313029439:instance/i-0a82bd55fdcdecf71

Private IPv4 addresses

10.0.12.185

Public DNS

ec2-3-216-147-169.compute-1.amazonaws.com | [open address](#)

Elastic IP addresses

3.216.147.169 (ElPec2) [Public IP]

AWS Compute Optimizer finding

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

Auto Scaling Group name

–

Managed

false

Details

Status and alarms

Monitoring

Security

Networking

Storage

Tags

▼ Security details

IAM Role

–

Security groups

sg-0f6694abca3d1e413 (launch-wizard-1)

Owner ID

919313029439

Launch time

Thu May 29 2025 10:12:46 GMT-0300 (Horário Padrão de Brasília)

▼ Inbound rules

Filter rules

< 1 >

Name	Security group rule ID	Port range	Protocol	Source	Sec
–	sgr-083c94b2a57eff46f	8080	TCP	0.0.0.0/0	laur
–	sgr-05356d7f37923c35d	22	TCP	0.0.0.0/0	laur
–	sgr-0e424be9146cc8a9c	80	TCP	0.0.0.0/0	laur

▼ Outbound rules

Backend:

```
Estilos de formatação
```

```

r                                     Amazon Linux 2023
---#--
---###
---###
---###
---V- -> https://aws.amazon.com/linux/amazon-linux-2023
---#
---#
---#
---#
Last login: Thu May 29 13:18:14 2025 from 18.206.107.27
[ec2-user@ip-10-0-12-185 ~]$ cd SpringandoNuvem/FrontEnd/projetofinalnuvem/src/app/
[ec2-user@ip-10-0-12-185 app]$ ls
Componentes atualizar criar favicon.ico globals.css layout.js listar nova-tarefa page.js page.module.css tarefas
[ec2-user@ip-10-0-12-185 app]$ cd ..
[ec2-user@ip-10-0-12-185 src]$ ls
app
[ec2-user@ip-10-0-12-185 src]$ cd ..
[ec2-user@ip-10-0-12-185 projetofinalnuvem]$ ls
Dockerfile README.md jsconfig.json next.config.mjs package-lock.json package.json tsconfig.json
[ec2-user@ip-10-0-12-185 projetofinalnuvem]$ sudo docker run -p 80:3000 fronting
   ▲ Next.js 15.3.2
     - Local:      http://localhost:3000
     - Network:    http://0.0.0.0:3000

✓ Starting...
✓ Ready in 168ms

```

i-0a82bd55fdcdecf71 (EcFront)

PublicIPs: 3.216.147.169 PrivateIPs: 10.0.12.185

Atualizar Tarefas

QUarta

teste na quarta

Status: Status

Editor

Amazing AWS

Foi uma jornada divertida e desafiadora

Status: Concluido

Editor

Hacked

Hacked
You've been hacked

Status: Concluido

Editor

Criar tarefa na nuvem

100% criado na nuvem

Status: Concluido

Editor

5. Links

Link para o vídeo no youtube: <https://youtu.be/3kFFXq7HOsk?si=2-LF5zUwu5gGgOvW>

Link para Github: <https://github.com/PedrodeAndradecf/SpringandoNuvem.git>

6. Atividades Realizadas por Cada Membro da Equipe

Nome	Atividade Realizada	Serviço Relacionado
Pedro	Criação e configuração do RDS	RDS
Leonardo	Desenvolvimento das funções Lambda	Lambda
Leonardo	Configuração do API Gateway e integração com Lambda	API Gateway, Lambda
Pedro	Provisionamento da instância EC2 e setup do SO	EC2
Leonardo e Pedro	Criação do diagrama e documentação final	Documentação Geral

Disclaimer: *É importante mencionar que o aluno **Guilherme Does** ingressou no grupo do Moodle, porém não participou em nenhum momento da construção deste projeto. Além disso, não teve a consideração de entrar em contato com os demais integrantes do grupo para comunicar sua entrada ou se integrar às atividades.*