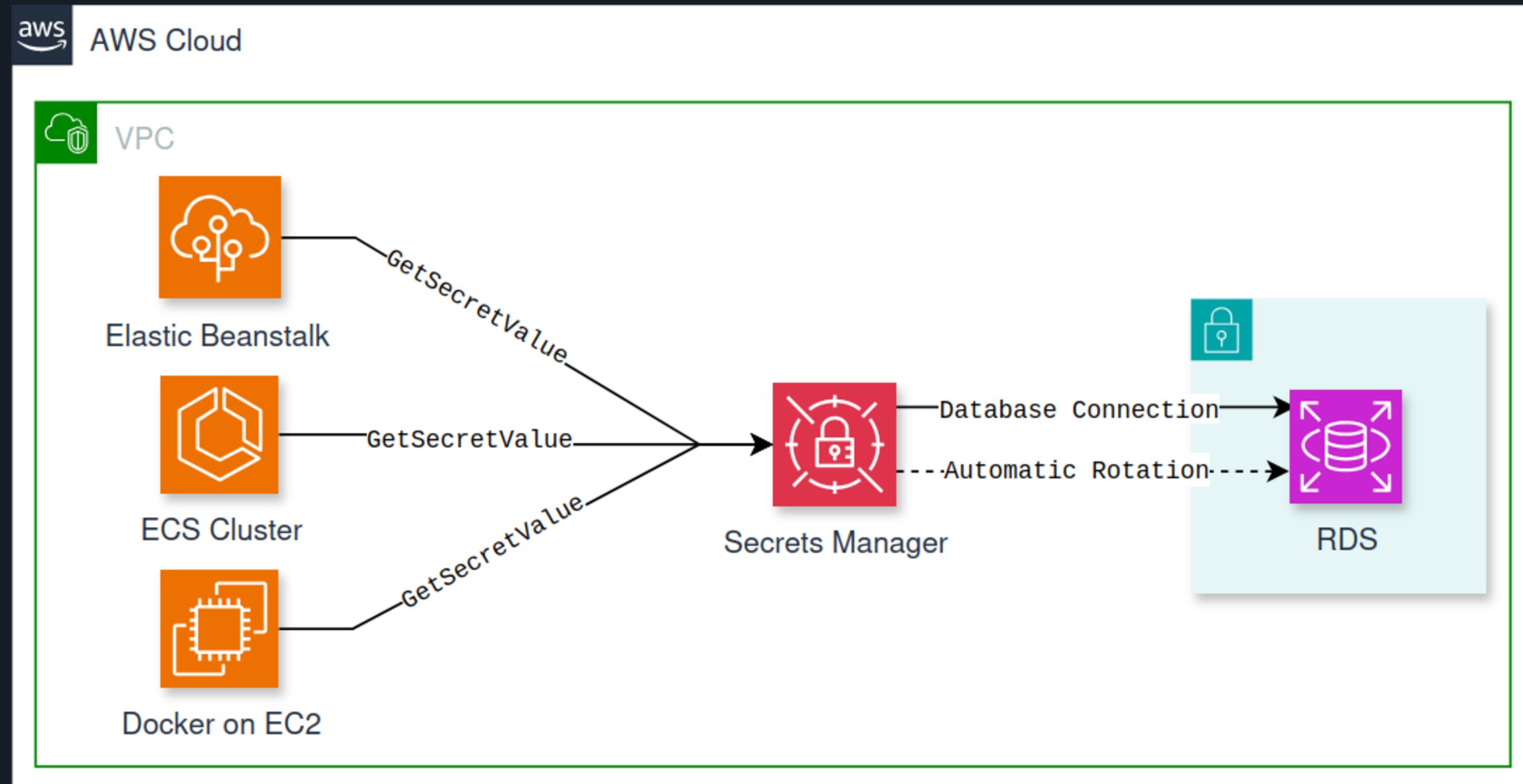




Desafio Labs 2.0 - Formação AWS

Arquitetura de Segurança: Secrets Manager Multi-Ambiente





Desafio Labs 2.0 - Formação AWS

Aplicação Local com Integração ao AWS Secrets Manager

The screenshot shows a local application interface for task management, specifically for the BIA 2025 project. The URL in the browser bar is `http://54.204.200.214:3001`. The application has a clean, modern design with a light gray background and white cards for tasks.

Task Management Section:

- Tarefa:** A text input field with placeholder text "O que você precisa fazer?".
- Data/Prazo:** A date input field with placeholder text "Quando?".
- Importante:** A checkbox labeled "Importante".
- Button:** A green button labeled "Adicionar Tarefa".

Task List:

- Teste da BIA na AWS sem Secrets:** Due 28/07/2025. This task is completed, indicated by a green star icon.
- Teste da BIA na Máquina de Trabalho com Secrets:** Due 28/07/2025. This task is completed, indicated by a green star icon. It is highlighted with an orange border.
- Teste da BIA no ECS com Secrets:** Due 28/07/2025. This task is completed, indicated by a green star icon.

Footer:

- Formação AWS 2025**
- Sobre a BIA**

An orange arrow points from the URL in the browser bar to the task list, highlighting the connection between the application and the AWS Secrets Manager integration.



Desafio Labs 2.0 - Formação AWS

Aplicação no ECS com Integração ao AWS Secrets Manager

The screenshot shows a web browser window displaying a task management application titled "BIA 2025". The URL in the address bar is `http://34.205.16.172`, which is highlighted with an orange box and an arrow pointing towards it from the left.

The application interface includes:

- Tarefa:** A text input field labeled "O que você precisa fazer?".
- Data/Prazo:** A text input field labeled "Quando?".
- Importante:** A checkbox labeled "Importante".
- Adicionar Tarefa:** A green button.
- Task List:** A list of three tasks:
 - Teste da BIA na AWS sem Secrets (due 28/07/2025)
 - Teste da BIA na Máquina de Trabalho com Secrets (due 28/07/2025)
 - Teste da BIA no ECS com Secrets (due 28/07/2025) - This task is highlighted with an orange box and an arrow pointing towards it from the right.
- Footer:** Links for "Formação AWS 2025" and "Sobre a BIA".



Desafio Labs 2.0 - Formação AWS

Aplicação no Elastic Beanstalk com Integração ao AWS Secrets Manager

The screenshot shows a web browser window displaying a To-Do list application titled "BIA 2025". The URL in the address bar is <http://env-bia-dev.us-east-1.elasticbeanstalk.com>. The application interface includes fields for "Tarefa" (Task) and "Data/Prazo" (Due Date), and a checkbox for "Importante" (Important). A green button labeled "Adicionar Tarefa" (Add Task) is present. Below these fields, there is a list of tasks:

- Teste da BIA na AWS sem Secrets (Due: 28/07/2025)
- Teste da BIA na Máquina de Trabalho com Secrets (Due: 28/07/2025)
- Teste da BIA no ECS com Secrets (Due: 28/07/2025)
- Teste da BIA no Beanstalk com Secrets (Due: 28/07/2025)

Each task row contains a star icon and a delete (X) icon. At the bottom of the application, there are links for "Formação AWS 2025" and "Sobre a BIA".



Desafio Labs 2.0 - Formação AWS

Criação de Segredo no AWS Secrets Manager para Acesso ao RDS

AWS Secrets Manager > Secrets

Secrets

Filter secrets by name, description, tag key, tag value, owning service or primary Region

Secret name	Description	Last retrieved (UTC)
rdsIdb-86fa1dea-1c36-4df9-9123-10d618207c83	The secret associated with the primary RDS DB instance: arn:aws:rds:us-east-1:568658500942:db:bia	-

An orange arrow points to the secret name "rdsIdb-86fa1dea-1c36-4df9-9123-10d618207c83".



Desafio Labs 2.0 - Formação AWS

Ativação da Rotação Automática de Credenciais no Secrets Manager

Screenshot of the AWS Secrets Manager console showing the rotation configuration for a PostgreSQL database.

Databases (1)

DB identifier	Status	Role	Engine	Region ...	Size
bia	⌚ Resetting-master-credentials	Instance	PostgreSQL	us-east-1c	db.t3.micro

Rotation configuration Info

Rotation status: Enabled (Enabled) ←

Rotation schedule: 7 days

Last rotated date (UTC): Mon, July 28, 2025 at 19:09:36 UTC

Next rotation date (UTC): The next rotation is scheduled to occur on or before this date. Mon, August 4, 2025 at 23:59:59 UTC

Actions: Rotate secret immediately | Edit rotation



Desafio Labs 2.0 - Formação AWS

Validação da Conexão Segura com o RDS Após Rotação de Senha

Senha do RDS antes da rotação

```
bia | Account ID: 568658500942
bia | Vou trabalhar com o secrets rds!db-86faldea-1c36-4df9-9123-10d618207c83
bia | { username: 'postgres', password: '21zAk380zPaLM2JSRAR)j#[~-Sc6' } ←
bia | Executing (default): SELECT "uuid", "titulo", "dia_atividade", "importante", "createdAt", "updatedAt" FROM "Tarefas" AS "Tarefas";
^CGracefully stopping... (press Ctrl+C again to force)
```

Nova senha do RDS após a rotação

```
bia | Account ID: 568658500942
bia | Vou trabalhar com o secrets rds!db-86faldea-1c36-4df9-9123-10d618207c83
bia | { username: 'postgres', password: ']TItS)eJzS5D78p[X_*2CxN_oQj-' } ←
bia | Executing (default): SELECT "uuid", "titulo", "dia_atividade", "importante", "createdAt", "updatedAt" FROM "Tarefas" AS "Tarefas";
```



Desafio Labs 2.0 - Formação AWS

Injeção Segura de Segredos no ECS através de Task Definition

Key	Value type	Value
DB_HOST	Value	bia.cupu2eku4zq6.us-east-1.rds.
DB_PORT	Value	5432
DB_REGION	Value	us-east-1
DB_SECRET_NAME	Value	rdsIdb-86fa1dea-1c36-4df9-912
DEBUG_SECRET	Value	true



Uso de Secrets Manager no Elastic Beanstalk com Variáveis de Ambiente

```
❶ docker-compose.yml •  
❷ docker-compose.yml > {} services > {} server > [ ] ports  
1   name: bia  
2   services:  
3     server:  
4       environment:  
5         DB_HOST: bia.cupu2eku4zq6.us-east-1.rds.amazonaws.com  
6         DB_PORT: "5432"  
7         DB_REGION: us-east-1  
8         DB_SECRET_NAME: rds!db-ce764cc0-55db-4078-8473-bbe79ac124fd ←  
9         DEBUG_SECRET: "true"  
10        image: 568658500942.dkr.ecr.us-east-1.amazonaws.com/bia:86e4450  
11        ports:  
12          - mode: ingress  
13            target: 8080  
14            published: "80"  
15            protocol: tcp  
16
```



Desafio Labs 2.0 - Formação AWS

Ambiente no Beanstalk Operacional com Gerenciamento Seguro de Credenciais

The screenshot shows the AWS Elastic Beanstalk environment overview for 'env-bia-dev'. The left sidebar lists 'Applications', 'Environments', 'Change history', 'Application: bia' (with 'Application versions' and 'Saved configurations'), and 'Environment: env-bia-dev' (with 'Go to environment', 'Configuration', 'Events', 'Health', 'Logs', and 'Monitoring'). The main content area has tabs for 'Events' (selected), 'Health', 'Logs', 'Monitoring', 'Alarms', 'Managed updates', and 'Tags'. The 'Events' section displays 100 events, with one entry: 'Environment update completed successfully.' at July 28, 2025 19:33:42 (UTC-3) with an INFO level. The 'Health' section shows a green status. The 'Platform' section shows 'Docker running on 64bit Amazon Linux 2023/4.6.1' and 'Supported' platform state.

Elastic Beanstalk

env-bia-dev Info

Environment overview

Health

Green ←

Domain

env-bia-dev.us-east-1.elasticbeanstalk.com ↗

Environment ID

e-emetjmewkw

Application name

bia

Platform

Platform

Docker running on 64bit Amazon Linux 2023/4.6.1

Running version

bia-version-6

Platform state

Supported

Events Info

Filter events by text, property or value

Time | Type | Details

July 28, 2025 19:33:42 (UTC-3) INFO Environment update completed successfully.

Events (100) Info

< 1 2 3 4 5 > ⚙️



Desafio Labs 2.0 - Formação AWS

Tasks no ECS com Acesso Seguro a Credenciais e Conexão ao RDS

cluster-bia ASG

Last updated July 28, 2025 at 17:03 (UTC-3:00)

[Update cluster](#) [Delete cluster](#)

Cluster overview

ARN arn:aws:ecs:us-east-1:568658500942:cluster/cluster-bia	Status Active	CloudWatch monitoring Default	Registered container instances 1
Services		Tasks	
Draining	Active 1	Pending	Running 1

[Services](#) [Tasks](#) [Infrastructure](#) [Metrics](#) [Scheduled tasks](#) [Configuration](#) [Tags](#)

Services (1) [Info](#)

[Create](#)

[Manage tags](#) [Update](#) [Delete service](#)

Filter launch type: Any launch type | Filter scheduling strategy: Any scheduling strategy

Service name	ARN	Status	Scheduling strategy	Created at	Deployments and tasks	Last deployment	Task definition
service-bia	arn:aws:ecs:us-e...	Active	REPLICAS	1 hour ago	<div style="width: 100%; background-color: #0070C0; height: 10px;"></div> 1/1 Tasks running	In progress	task-def-b