

**MBA
USP
ESALQ**

MICROSSERVIÇOS

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Objetivos

1. Conhecer uma ferramenta para simulação de um provedor de nuvem pública
2. Criar aplicações que se baseiam nos padrões de projetos de microserviços

Pré-requisitos e Ferramentas

1. Pré-requisitos instalação do LocalStack
 1. LocalStack CLI
 2. LocalStack Web Application account e Auth Token
2. Docker
3. Python 3.9+ e pip
4. AWS CLI e awslocal wrapper
5. jq, zip e curl
6. Linha de comando do sistema operacional
7. Navegador web

Escolha de plano do LocalStack

LocalStack

Pricing Plans

The right plan for your needs!
Choose a plan that works best for you and your team.

Trial	Pro	Team	Enterprise
 Trial Trial access to all LocalStack Pro and Team features	 Pro Use of LocalStack on individual developers' machines with limited use in CI/CD	 Team Use of LocalStack across teams and extensive use in CI/CD pipelines	 Enterprise Use of LocalStack in large organizational settings
Full access for 14 days: <ul style="list-style-type: none">✓ Advanced APIs✓ CI starter tier¹✓ IAM security enforcement✓ Cloud pods storage³✓ Shared cloud pods for collaborative debugging✓ Best-effort support (Slack)✓ All LocalStack Pro and Team features	<ul style="list-style-type: none">✓ Advanced APIs**✓ CI starter tier¹✓ IAM security enforcement✓ State persistence for individual debugging✓ Best-effort support (Slack)	Everything in Pro, plus: <ul style="list-style-type: none">✓ CI performance tier²✓ Team usage analytics✓ Shared cloud pods for collaborative debugging✓ Cloud pods storage³✓ Prioritized best effort-support (Slack)	Everything in Team, plus: <ul style="list-style-type: none">✓ Unlimited CI usage✓ CI analytics✓ Advanced cloud pods storage⁴✓ SSO Support✓ Dedicated tech support via ticketing system with SLAs✓ Shared instances✓ Offline image✓ Custom or on-premise installations
\$0.00	\$35.00* per seat per month (billed annually) <input checked="" type="radio"/> Yearly	\$70.00* per seat per month (billed annually) <input checked="" type="radio"/> Yearly	Custom pricing
Try Now	Get Started	Get Started	Contact Us

We are offering a Hobby plan for individuals who are not using LocalStack commercially. See T&C and FAQ for details.

✓ Advanced APIs**, ✓ CI starter tier¹, ✓ IAM security enforcement, ✓ State persistence for individual debugging, ✗ Best-effort support (Slack)

[Get Started](#)

Escolha de plano do LocalStack

The screenshot displays the 'Subscribe to a LocalStack Plan' interface. On the left is a sidebar with navigation links: Dashboard, Getting Started, Cloud Pods, Extensions, IAM Policy Stream, LocalStack Desktop, Stack Insights, Chaos Engineering, Workspace, Workspace Settings, Auth Token, My License, Users & Licenses, CI Keys, Legacy API Keys, Subscriptions, Billing, Account, Account Info, Password and Authentication, Settings, and LocalStack Instances. The main content area is titled 'Subscribe to a LocalStack Plan' and includes a 'Select a Plan' section with a 'Yearly' toggle. The 'Trial Subscription for evaluation' is selected, showing a price of \$0.00 per user per month. Below it are options for 'Trial Seat' (\$0.00), 'Trial CI' (infinite CI Credits / month, \$0.00), and 'Trial Pods' (infinite, \$0.00). Further down are 'Pro Subscription (Monthly) for individuals' at \$40.00 per user per month and 'Team Subscription (Monthly) for teams' at \$80.00 per user per month. A 'Seats' selector is set to 1. The 'Order Information' section asks if the user is purchasing as an individual or on behalf of a company, with 'Individual' selected. The 'Billing Address' section shows a message: 'Address is incomplete or not provided'. On the right, a 'Summary' table lists the selected items: 1 Trial Seat (\$0.00), 1 Trial CI (infinite CI Credits / month, \$0.00), and 1 Trial Pods (infinite, \$0.00). The total is \$0.00. There is a 'Subscribe Now' button and a checkbox for agreeing to the terms and conditions.

LocalStack

Subscribe to a LocalStack Plan

Select a Plan

☒ Trial Subscription for evaluation

☐ Pro Subscription (Monthly) for individuals

☐ Team Subscription (Monthly) for teams

Yearly

\$0.00 per user / month

\$0.00

\$0.00

\$0.00

\$40.00 per user / month

\$80.00 per user / month

Seats: - 1 +

Order Information

Are you purchasing as an individual or on behalf of a company?

☒ Individual ☐ Company

Billing Address

[Edit Address](#)

Summary

Trial Seat	\$0.00
Trial CI ∞ CI Credits / month	\$0.00
Trial Pods ∞	\$0.00

1 Seat(s) \$0.00

Promo Code [Apply](#)

Total \$0.00

☒ I agree to the [Terms and Conditions](#), [Data Processing Addendum](#) and [Privacy Policy](#).

[Subscribe Now](#)

Escolha de plano do LocalStack

The screenshot displays the LocalStack user interface. On the left is a sidebar with the LocalStack logo and a navigation menu. The main content area is titled 'Subscription Details' and shows the current status as 'trialing' with an end date of '2024-02-20'. It lists three trial items: 'Trial Seat' (1 License(s)), 'Trial CI' (Credits), and 'Trial Pods'. Each item has a progress bar indicating the trial period. At the bottom, there are buttons for 'Update Subscription' and 'Cancel Subscription'.

LocalStack

Subscription Details

Status: ● trialing Ends on: 2024-02-20

Trial Seat
1 License(s)

Trial CI
Credits

Trial Pods

Update Subscription
Upgrade or downgrade Subscription Update

Cancel Subscription
Cancel this Subscription by the End of Prepaid Period Cancel

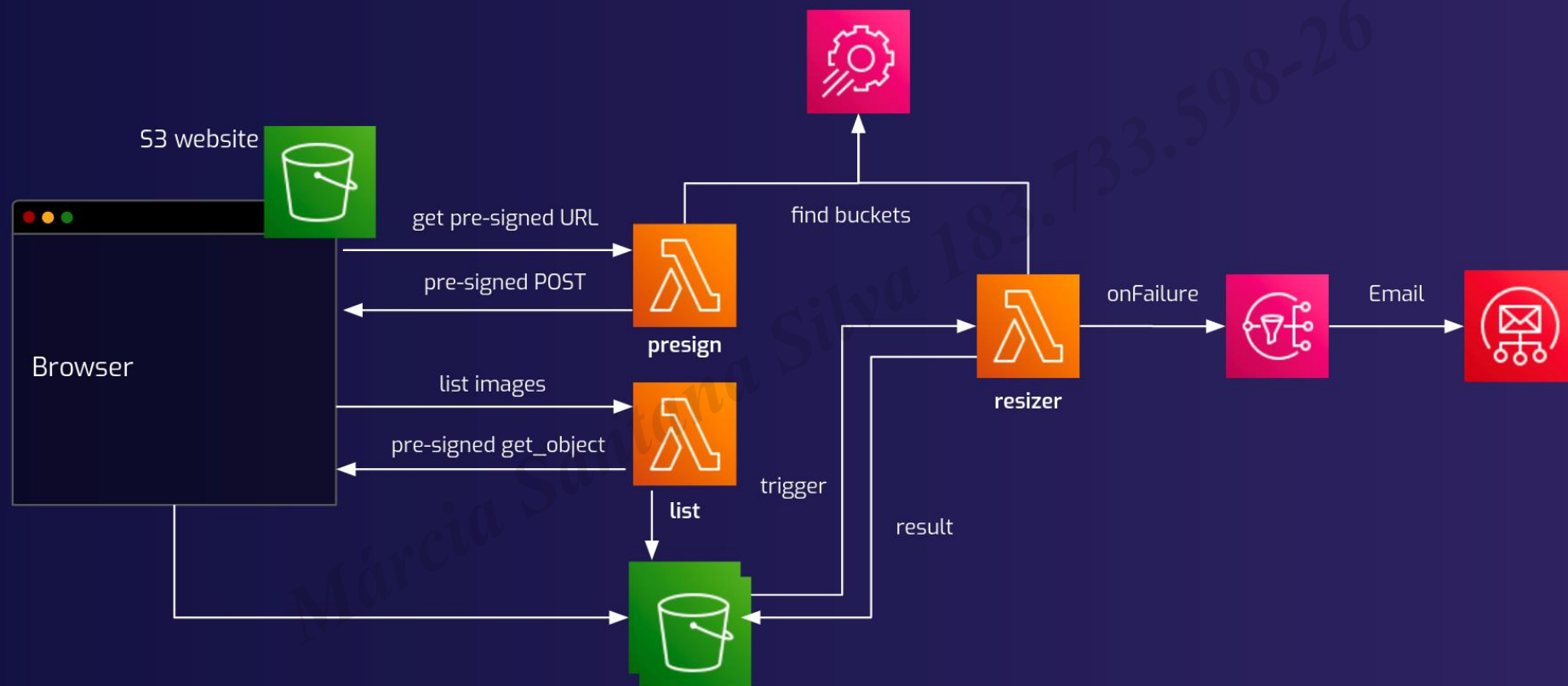
Exercício

Aplicação Serverless para redimensionamento de imagens

Sobre a aplicação

- A aplicação faz o redimensionamento de imagens através de tecnologias Serverless (sem Servidor), usando os serviços da AWS S3 (armazenamento de objetos), AWS SSM (Systems Manager para armazenamento de configurações), Lambda (funções executadas na nuvem sem servidor), SNS e SES.
- A aplicação possui uma função Lambda que cria URLs pré-assinadas para uploads diretos e a funcionalidade S3 bucket notifications dispara a função de redimensionamento de imagem. Outra função Lambda lista e entrega URLs pré-assinadas para exibição no navegador.
- A aplicação também gerencia falhas nas funções Lambda através do serviço SNS e notificações via e-mail através do serviço SES.

Serverless image resizer

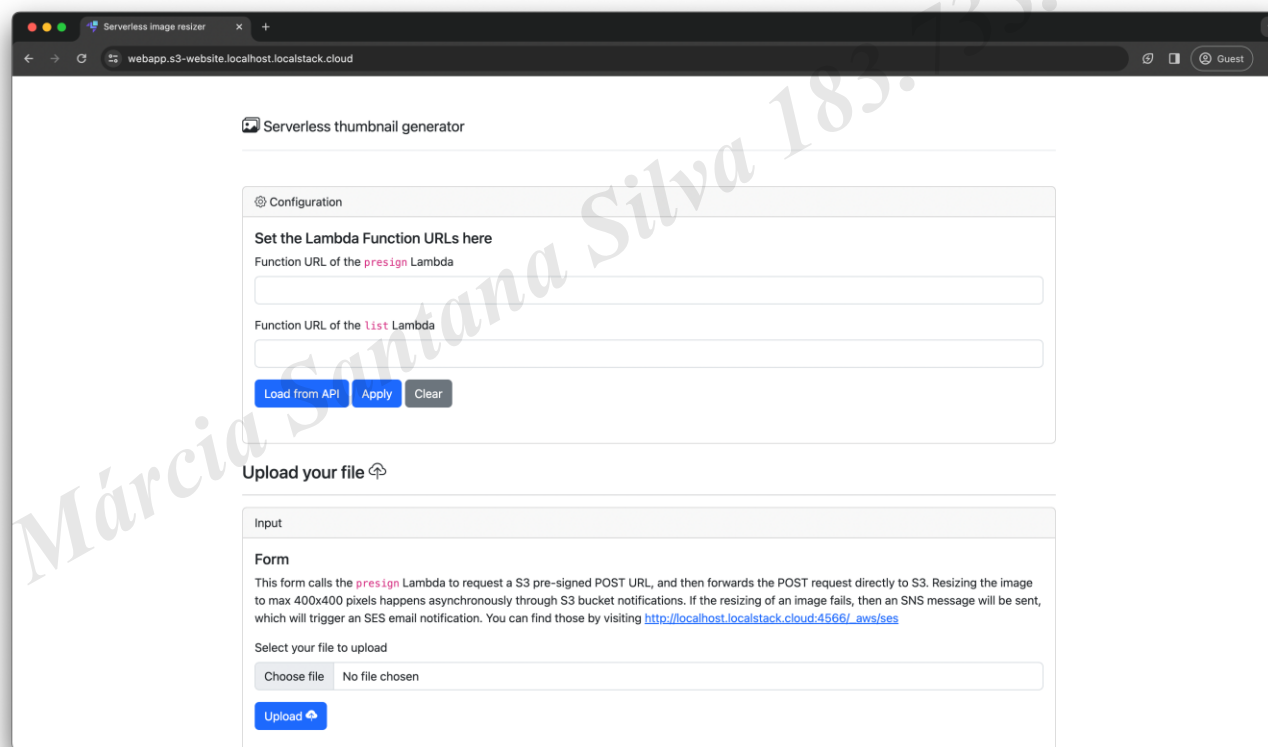


Passos para criação da aplicação

- Criar os buckets S3
- Adicionar os nomes dos buckets S3 na parameter store
- Criar um tópico no SNS para DLQ (Dead Letter Queue) para invocações Lambda que falharam
- Criar uma função Lambda pré-assinada
- Criar uma função Lambda para listar imagens
- Criar uma função Lambda para redimensionar imagens
- Conectar o bucket S3 com a função Lambda para redimensionar imagens
- Criar o website estático no bucket S3
- Recuperar as URLs das funções Lambda
- Executar a aplicação

Teste da aplicação

- <https://webapp.s3-website.localhost.localstack.cloud:4566>



OBRIGADO!

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