LocalStack

Developing Lambda Functions with LocalStack

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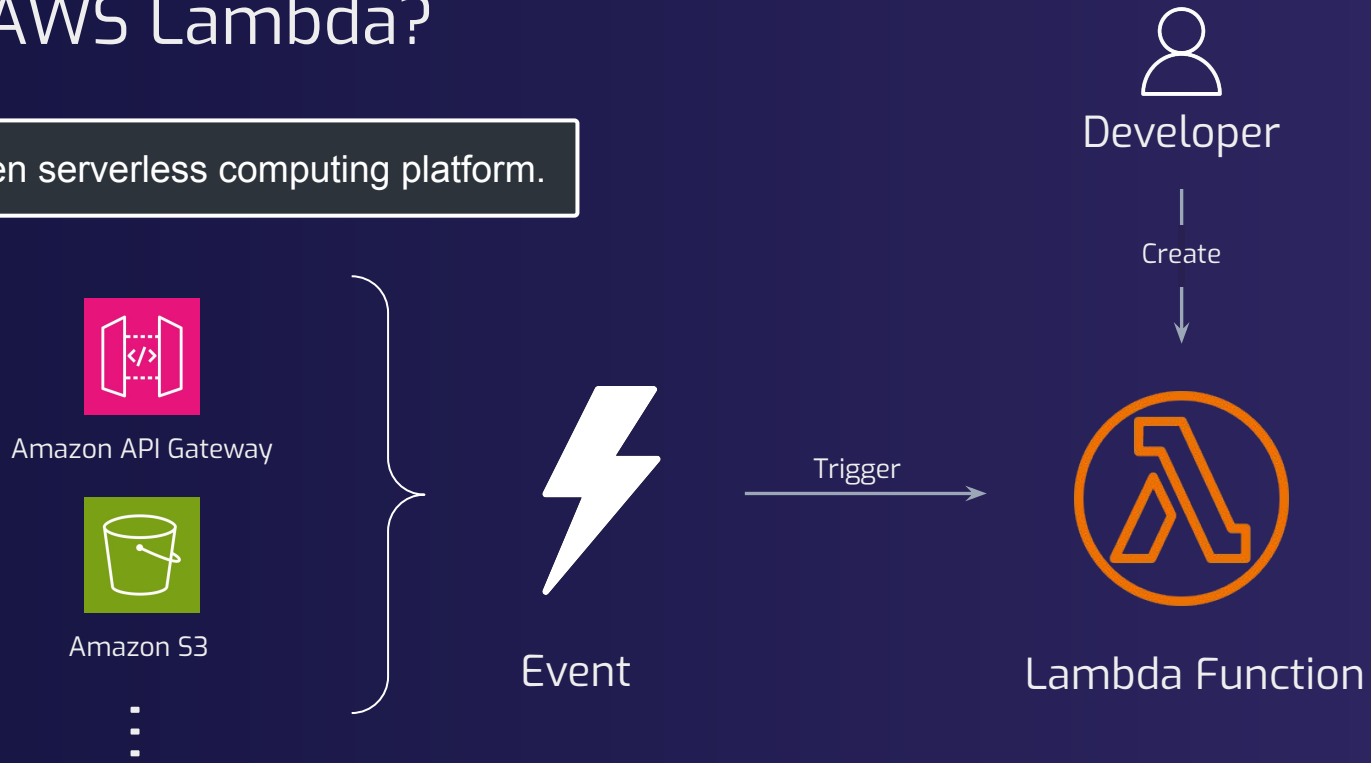
AWS Lambda

on

LocalStack

What is AWS Lambda?

An event-driven serverless computing platform.



LocalStack Lambda Highlights ✨

✅ **Feature coverage**: 95% of all Lambda API operations

⚖️ **AWS Parity**: API behaves like in AWS with 90% parity test coverage

🗣️ **Lambda Runtimes**: 100% of AWS-managed runtimes supported

📦 **Official AWS Images**: Docker base images pulled from `public.ecr.aws/lambda/`

👾 **ARM Support**: Run `arm64` and `x86_64` Lambda functions

⇉ **Lambda Concurrency**: Provisioned and reserved concurrency

🔌 **Lambda Extensions API**: Customize Lambda execution environment

LocalStack Lambda Features

🔥 **Hot Reloading**: Continuously apply code changes to Lambda functions and layers (Pro)

🐞 **Remote Debugging**: Attach a debugger to your Lambda functions

👩‍💻 **VSCode Extension**: Deploy and invoke your Lambda from your IDE

🚚 **Cloud Pods**: Share a snapshot of your Lambda infrastructure (Pro)

🕹️ **Full Control**: Configure your Lambda setup (e.g., limits, cold starts)

DEMO

Lambda on LocalStack works like at AWS

DEMO

LocalStack accelerates your Lambda Development

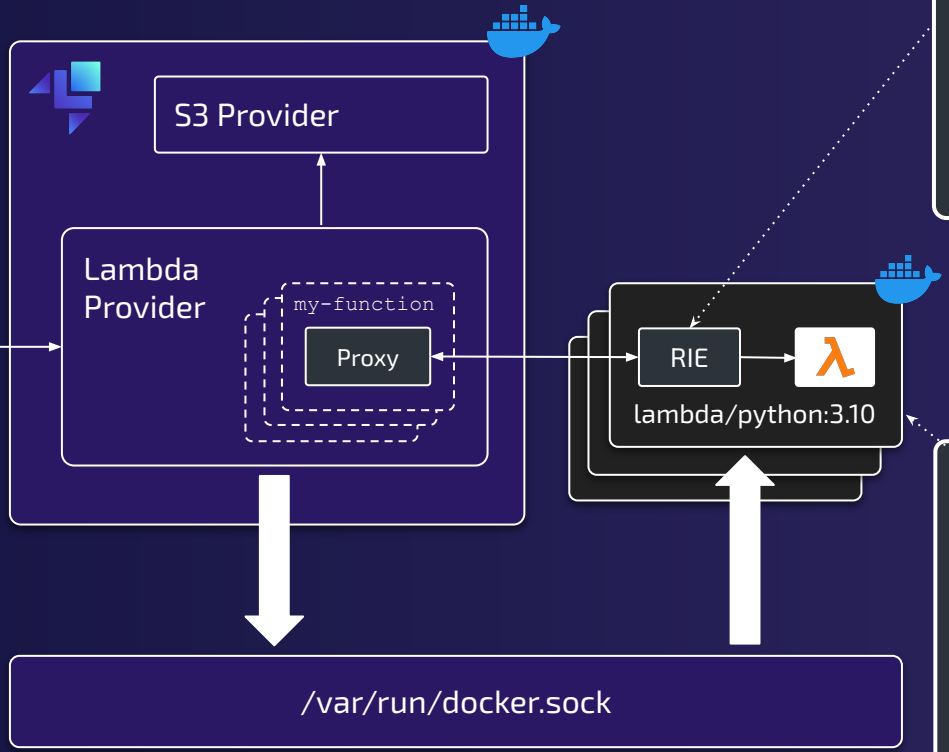
DEMO

LocalStack enables Debugging Lambda Functions

How does LocalStack Lambda work?

```
$ awslocal lambda invoke \
--function-name my-function
```

POST /functions/
my-function/invoke



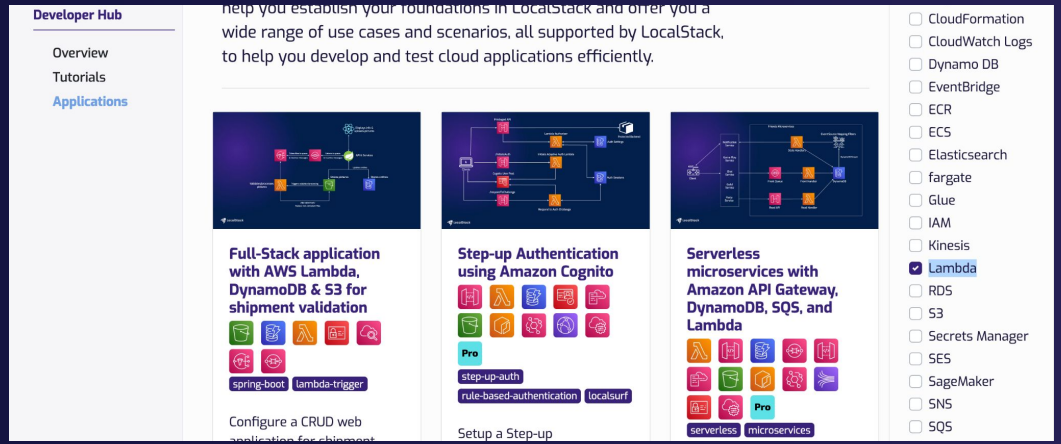
AWS Lambda Runtime Interface Emulator

release v1.13 | Go v1.19 | license Apache-2.0

The Lambda Runtime Interface Emulator is a proxy for Lambda's Runtime and Extensions APIs, which allows customers to locally test their Lambda function packaged as a container image.

AWS Lambda Base Container Images

AWS provided base images for Lambda contain all the required components to run your functions packaged as container images on AWS Lambda. These base images contain the Amazon Linux Base operating system, the

Next Steps

1. Get these slides and the demo code: https://github.com/joe4dev/localstack-lambda-demos
2. Explore Lambda applications in our Developer Hub https://docs.localstack.cloud/applications/