CDK and SAM-local

are your friends

### AWS SAM CLI

Serverless Application Model

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Command Line Interface

#### Serverless?

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Lambda functions, event sources, and other resources that work together to perform tasks

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can include additional resources such as APIs, databases, and event source mappings

### Serverless Application Model

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\* Open Source

\* framework for building serverless applications

\* shorthand ... to express resources

 (functions, APIs, databases, and event source mappings)

\* define the application you want and model it using YAML

\* expands the SAM syntax into AWS CloudFormation

#### SAM Command Line Interface

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- \* Verify templates
  - \* Invoke Lambda functions locally w/Docker
    - \* Step-through Lambda debugging
      - \* Package and deploy Lambda functions
        - \* and more

## AWS CDK

Amazon's Open Source Cloud Development Kit

#### CDK Features

\* Open Source: github.com/aws/aws-cdk, responsive to issues, public roadmap \* Typescript -> JavaScript, Python, Go, Java, C# \* Extensible: cdktf, AWS Solution Constructs \* Produces CloudFormation ("stack synthesis") \* APIs: CloudFormation Resource Specification... --> L1: low-level CloudFormation resources --> L2: high-level intent-based resource API --> Patterns: combine resources via Construct Library

### SAM + CDK

Announced on the AWS blog End of April 2021

## Blog announcement -"Better together: AWS SAM and AWS CDK"

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- \* AWS SAM is template-based using JSON or YAML
- \* AWS CDK uses languages such as Python or Node

Previously: SAM to manage Lambda code and CloudFormation as separate components

Now: SAM to manage CDK code with synthesized CFN

# Walkthrough

https://github.com/oshaughnessy/cdk-sam-lambda-rest