# @devopschallengehub







## What is AWS SAM and how does it relate to CloudFormation?

Follow-up: When would you choose SAM over CDK or plain CloudFormation for serverless applications?

### **What is AWS SAM?**

AWS SAM stands for Serverless Application Model.

It's a tool that helps you build and deploy serverless applications on AWS easily and quickly.

#### **○** Serverless means:

- You don't manage servers.
- You use AWS services like Lambda, API Gateway, and DynamoDB.
- AWS automatically handles the scaling and infrastructure.

#### **What Does SAM Do?**

Simagine CloudFormation is like writing code in assembly (low-level, long, complex).

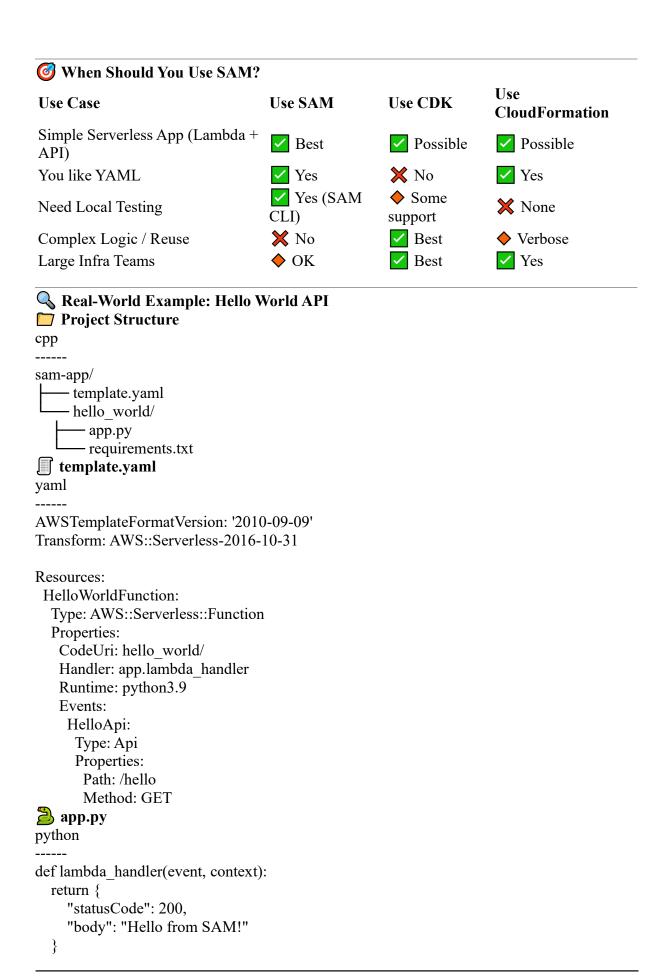
SAM is like Python — short, clean, and easy.

With just a few lines of YAML, you can:

- Define a Lambda function
- Attach an API Gateway
- Connect to DynamoDB
- Set **permissions** all together!

#### How SAM Works

- 1. You write a simple YAML file (template.yaml)
- 2. You use the **SAM CLI** to:
  - o Build the code (sam build)
  - Deploy to AWS (sam deploy)
  - Test locally (sam local start-api)
- 3. Behind the scenes, SAM converts your YAML into **CloudFormation**.
  - So you still get rollback, versioning, audit logs all benefits of infrastructure-as-code.



### Deploy & Test

bash

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sam build

sam deploy --guided #You'll get a public URL

**O** You get:

https://<your-api>.execute-api.us-east-1.amazonaws.com/Prod/hello

Test Locally:

bash

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sam local start-api

# Visit: http://localhost:3000/hello

AWS SAM is great for **building small, serverless apps using Lambda and API Gateway**. It saves time **by reducing YAML**, allows **local testing with SAM CLI**, and still uses CloudFormation underneath. I used SAM to build a REST API for a startup in days, tested locally, and deployed with a single command — it was fast, reliable, and serverless from day one.

#### What is AWS SAM primarily used for?

A. Automating EC2 deployments

B. Building and deploying serverless applications on AWS

C. Creating Kubernetes clusters

D. Visualizing infrastructure

**Answer:** B

#### What does AWS SAM transform into before actual resource provisioning?

A. Docker Compose

B. Terraform scripts

C. Native CloudFormation templates

D. AWS Lambda runtime

**Answer:** C

## 4. Which AWS service does not directly benefit from AWS SAM's high-level abstractions?

A. Lambda

B. API Gateway

C. DynamoDB

D. EC2

Answer: D