JON BONSO AND KENNETH SAMONTE

AWS CERTIFIED

DEVOPS ENGINEER PROFESSIONAL

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Study Guide and Cheat Sheets

AWS Serverless Application Model (SAM)

- An open-source framework for building serverless applications.
- It provides shorthand syntax to express functions, APIs, databases, and event source mappings.
- You create a **JSON** or **YAML** configuration template to model your applications.
- During deployment, SAM transforms and expands the SAM syntax into **AWS CloudFormation syntax**. Any resource that you can declare in an AWS CloudFormation template you can also declare in an AWS SAM template.
- The **SAM CLI** provides a Lambda-like execution environment that lets you locally build, test, and debug applications defined by SAM templates. You can also use the SAM CLI to deploy your applications to AWS.
- You can use AWS SAM to build serverless applications that use **any runtime supported by AWS Lambda**. You can also use SAM CLI to locally debug Lambda functions written in Node.js, Java, Python, and Go.
- Commonly used SAM CLI commands
    - The **sam init** command generates pre-configured AWS SAM templates.
    - The **sam local c**ommand supports local invocation and testing of your Lambda functions and SAM-based serverless applications by executing your function code locally in a Lambda-like execution environment.
    - The **sam package** and **sam deploy c**ommands let you bundle your application code and dependencies into a “deployment package" and then deploy your serverless application to the AWS Cloud.
    - The **sam logs** command enables you to fetch, tail, and filter logs for Lambda functions.
    - The output of the **sam publish** command includes a link to the AWS Serverless Application Repository directly to your application.
    - Use **sam validate** to validate your SAM template.